

IMPORTANT NOTICE

THIS DOCUMENT IS NOT FOR DISTRIBUTION TO ANY PERSON OTHER THAN TO INVESTORS WHO ARE EITHER (1) QIBS (AS DEFINED BELOW) UNDER RULE 144A (AS DEFINED BELOW) OR (2) PERSONS OTHER THAN U.S. PERSONS (AS DEFINED IN REGULATION S UNDER THE SECURITIES ACT ("REGULATION S")) WITH ADDRESSES OUTSIDE OF THE UNITED STATES.

IMPORTANT: You must read the following notice before continuing. The following notice applies to the attached offering circular following this page (this "**Offering Circular**"), whether received by email, accessed from an internet page or otherwise received as a result of electronic communication and you are therefore advised to read this notice carefully before reading, accessing or making any other use of this Offering Circular. In reading, accessing or making any other use of this Offering Circular, you agree to be bound by the following terms and conditions and each of the restrictions set out in this Offering Circular, including any modifications made to them from time to time, each time you receive any information from us as a result of such access.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY THE SECURITIES DESCRIBED IN THIS OFFERING CIRCULAR IN ANY JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE SECURITIES HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), OR THE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES OR OTHER JURISDICTION AND THE SECURITIES MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, U.S. PERSONS (AS DEFINED IN REGULATION S), EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND APPLICABLE STATE OR LOCAL SECURITIES LAWS.

THE SECURITIES ARE BEING OFFERED AND SOLD ONLY: (1) WITHIN THE UNITED STATES OR TO A U.S. PERSON IN RELIANCE ON RULE 144A UNDER THE SECURITIES ACT ("RULE 144A") ONLY TO PERSONS THAT ARE "QUALIFIED INSTITUTIONAL BUYERS" ("QIBS") (AS DEFINED IN RULE 144A), ACTING FOR THEIR OWN ACCOUNT OR FOR THE ACCOUNT OF ANOTHER QIB, AND (2) OUTSIDE THE UNITED STATES TO PERSONS OTHER THAN U.S. PERSONS ("U.S. PERSONS") (AS DEFINED IN REGULATION S) IN OFFSHORE TRANSACTIONS IN ACCORDANCE WITH RULE 903 OR RULE 904 OF REGULATION S. WITHIN THE UNITED KINGDOM, THIS OFFERING CIRCULAR IS DIRECTED ONLY AT PERSONS WHO (A) HAVE PROFESSIONAL EXPERIENCE IN MATTERS RELATING TO INVESTMENTS FALLING WITHIN ARTICLE 19(5) OF THE FINANCIAL SERVICES AND MARKETS ACT 2000 (FINANCIAL PROMOTION) ORDER 2005 (THE "FPO"); (B) ARE PERSONS FALLING WITHIN ARTICLE 49(2)(a) TO (d) OF THE FPO; OR (C) ARE OTHER PERSONS TO WHOM THIS OFFERING CIRCULAR MAY BE LAWFULLY COMMUNICATED (ALL SUCH PERSONS TOGETHER BEING REFERRED TO AS RELEVANT PERSONS). OUTSIDE OF THE UNITED KINGDOM, THIS OFFERING CIRCULAR IS BEING DIRECTED ONLY AT PERSONS WHO MAY LAWFULLY RECEIVE IT. FOR A MORE COMPLETE DESCRIPTION OF RESTRICTIONS ON OFFERS AND SALES, SEE "SUBSCRIPTION AND SALE AND TRANSFER AND SELLING RESTRICTIONS" IN THIS OFFERING CIRCULAR.

THIS OFFERING CIRCULAR MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS OFFERING CIRCULAR IN WHOLE OR IN PART IS UNAUTHORISED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE SECURITIES LAWS OF OTHER JURISDICTIONS. IF YOU HAVE GAINED ACCESS TO THIS TRANSMISSION CONTRARY TO ANY OF THE FOREGOING RESTRICTIONS, YOU ARE NOT AUTHORISED AND WILL NOT BE ABLE TO PURCHASE ANY OF THE SECURITIES DESCRIBED IN THE ATTACHED DOCUMENT. THIS DOCUMENT IS NOT INTENDED FOR DISTRIBUTION TO AND MUST NOT BE PASSED ON TO ANY RETAIL CLIENT.

THE SECURITIES HAVE NOT BEEN AND WILL NOT BE REGISTERED WITH THE FINANCIAL SERVICES COMMISSION OF KOREA UNDER THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKETS ACT OF KOREA. ACCORDINGLY, THE SECURITIES MAY NOT BE OFFERED, SOLD OR DELIVERED, DIRECTLY OR INDIRECTLY, IN KOREA OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, ANY RESIDENT OF KOREA (AS SUCH TERM IS DEFINED UNDER THE FOREIGN EXCHANGE TRANSACTION ACT OF KOREA AND THE RULES AND REGULATIONS PROMULGATED THEREUNDER) OR TO OTHERS FOR RE-OFFERING OR RESALE, DIRECTLY OR INDIRECTLY, IN KOREA OR TO ANY RESIDENT OF KOREA, EXCEPT AS OTHERWISE PERMITTED UNDER APPLICABLE KOREAN LAWS AND REGULATIONS. IN ADDITION, DURING THE FIRST YEAR AFTER THE ISSUANCE OF THE SECURITIES, THE SECURITIES MAY NOT BE TRANSFERRED TO ANY RESIDENT OF KOREA (I) (IN THE CASE WHERE THE SECURITIES ARE ISSUED IN RELIANCE ON THE EXEMPTION AS SET OUT IN ARTICLE 2-2-2, PARAGRAPH 2, ITEM 3 OF THE SECURITIES ISSUANCE AND DISCLOSURE REGULATION OF KOREA) OTHER THAN A KOREAN QUALIFIED INSTITUTIONAL BUYER (A "KOREAN QIB", AS DEFINED IN THE ABOVE REGULATION) WHO IS REGISTERED WITH THE KOREA FINANCIAL INVESTMENT ASSOCIATION AS A KOREAN QIB, PROVIDED THAT THE AMOUNT OF THE SECURITIES ACQUIRED BY THE KOREAN QIBS IN THE PRIMARY MARKET IS LIMITED TO NOT MORE THAN 20% OF THE AGGREGATE PRINCIPAL AMOUNT OF THE SECURITIES OR (II) EXCEPT AS OTHERWISE PERMITTED UNDER APPLICABLE KOREAN LAWS AND REGULATIONS.

Confirmation of Your Representation: In order to be eligible to view the Offering Circular or make an investment decision with respect to the securities described herein, investors must be either (1) QIBs (within the meaning of Rule 144A under the Securities Act) or (2) a non-U.S. person (within the meaning of Regulation S under the Securities Act). The Offering Circular is being sent at your request and by accepting the e-mail and accessing the Offering Circular, you shall be deemed to have represented to the Dealers (as described in this Offering Circular) that (1) you and any customers you represent are either (a) QIBs or (b) non-U.S. persons (as defined in Regulation S under the Securities Act) and that the electronic mail address that you gave us and to which this e-mail has been delivered is not located in the United States, its territories or possessions and (2) you consent to delivery of such offering circular by electronic transmission.

You are reminded that this Offering Circular has been delivered to you on the basis that you are a person into whose possession this Offering Circular may be lawfully delivered in accordance with the laws of the jurisdiction in which you are located and you may not, nor are you authorised to, deliver or disclose the contents of this Offering Circular to any other person. Failure to comply with this directive may result in a violation of the Securities Act or the applicable laws of other jurisdictions.

The materials relating to the offering do not constitute, and may not be used in connection with, an offer or solicitation in any place where such offers or solicitations are not permitted by law. If a jurisdiction requires that the offering be made by a licenced broker or dealer and the Dealers or any affiliate of the Dealers is a licenced broker or dealer in that jurisdiction, the offering shall be deemed to be made by the Dealers or such affiliate on behalf of the Issuer (as defined in this Offering Circular) in such jurisdiction.

The Offering Circular may be distributed only to, and is directed at (1) persons who have professional experience in matters relating to investments falling within article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "**Order**") or (2) high net worth entities falling within article 49(2)(a) to (d) of the Order, and other persons to whom it may be lawfully communicated (all such persons together being referred to as "**relevant persons**"). The Offering Circular and its contents are confidential and should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any investment or investment activity to which the Offering Circular relates will be available only to relevant persons and will be engaged in only with relevant persons. Any person who is not a relevant person should not act or rely on the Offering Circular or any of its contents.

This Offering Circular has been sent to you in an electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently, none of the Dealers, the Issuer or any person who controls any of them or is a director, officer, employee or agent of any of them nor any affiliate of any such person accepts any liability or responsibility whatsoever to the fullest extent permitted by law in respect of any difference between this Offering Circular distributed to you in electronic format and the hard copy version available to you on request from the Dealers. You are responsible for protecting against viruses and other destructive items. Your use of this e-mail is at your own risk and it is your responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.

The distribution of this Offering Circular in certain jurisdictions may be restricted by law. Persons into whose possession this Offering Circular comes are required by the Dealers and the Issuer to inform themselves about, and to observe, any such restrictions.

OFFERING CIRCULAR



KEB Hana Bank

*(incorporated with limited liability under the laws of the Republic of Korea)
(acting through its principal office in the Republic of Korea)*

US\$5,000,000,000 Global Covered Bond Programme

Under the US\$5,000,000,000 Global Covered Bond Programme (the “**Programme**”), KEB Hana Bank (the “**Issuer**,” the “**Bank**” or “**Hana Bank**”) may from time to time issue covered bonds in accordance with the Korean Covered Bond Laws (as defined in “*Summary of the Programme*”) (“**Covered Bonds**”) denominated in any currency agreed among the Issuer, the Arranger and the relevant Dealer (as defined below). The maximum aggregate nominal amount of all Covered Bonds from time to time outstanding under the Programme will not exceed US\$5,000,000,000 (or its equivalent in other currencies calculated as described in the Dealer Agreement described herein), subject to increase as described herein.

The Covered Bonds have not been, and will not be, registered under the U.S. Securities Act of 1933, as amended (the “**Securities Act**”), or any state securities laws and, subject to certain exceptions, may not be offered or sold directly or indirectly within the United States or to or for the account or benefit of U.S. persons, as defined in Regulation S under the Securities Act (“**Regulation S**”). The Covered Bonds may be offered for sale only (i) in the United States, to qualified institutional buyers (“**QIBs**”) within the meaning of, and in reliance on, Rule 144A under the Securities Act (“**Rule 144A**”) or another available exemption from, or in a transaction not subject to, the registration requirements of the Securities Act (“**Restricted Covered Bonds**”); or (ii) outside the United States to non-U.S. persons in reliance on, and in accordance with, Regulation S (“**Unrestricted Covered Bonds**”), in each case, in compliance with applicable laws, regulations and directives. Prospective purchasers are hereby notified that sellers of the Covered Bonds may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A. See “*Subscription and Sale and Transfer and Selling Restrictions*.”

The Covered Bonds may be issued on a continuing basis to one or more Dealers specified under “*Summary of the Programme*” below and any additional Dealer appointed under the Programme from time to time, which appointment may be for a specific issue (each, a “**Dealer**” and together, the “**Dealers**”). References in this offering circular (this “**Offering Circular**”) to the “relevant Dealer” shall, in the case of an issue of Covered Bonds being (or intended to be) subscribed by more than one Dealer, be to all Dealers agreeing to subscribe such Covered Bonds.

Approval in-principle has been received from the Singapore Exchange Securities Trading Limited (the “**SGX-ST**”) in connection with the Programme and application will be made for the listing and quotation of any Covered Bonds that may be issued pursuant to the Programme and which are agreed, at or prior to the time of issue thereof, to be so listed and quoted on the SGX-ST. Such permission will be granted when such Covered Bonds have been admitted for listing and quotation on the SGX-ST. The SGX-ST assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained, herein. Approval in-principle from, admission to the Official List of, and listing and quotation of any of the Covered Bonds on, the SGX-ST are not to be taken as an indication of the merits of the Issuer, the Programme or the Covered Bonds.

Notice of the aggregate nominal amount of Covered Bonds, interest (if any) payable in respect of Covered Bonds, the issue price of Covered Bonds and any other terms and conditions not contained herein which are applicable to each Tranche of Covered Bonds will be set out in the pricing supplement (the “**Pricing Supplement**”).

The Programme provides that Covered Bonds may be listed or admitted to trading, as the case may be, on such other or further stock exchanges or markets as may be agreed among the Issuer, the Arranger and the relevant Dealer. The Issuer may also issue unlisted Covered Bonds and/or Covered Bonds not admitted to trading on any market.

Covered Bonds issued under the Programme are expected on issue to be assigned a rating of “AAA” by S&P Global Ratings, a division of S&P Global, Inc. (“**S&P**”) and a rating of “AAA” by Fitch Ratings Limited (“**Fitch**”). A credit rating is not a recommendation to buy, sell or hold securities and may be subject to suspension, change or withdrawal at any time by the assigning rating organisation.

The Issuer may agree with the Arranger and any Dealer that Covered Bonds may be issued in a form not contemplated by the Terms and Conditions of the Covered Bonds herein, in which event an Offering Circular supplement, if appropriate, will be made available which will describe the effect of the agreement reached in relation to such Covered Bonds.

THE “INVESTMENT CONSIDERATIONS” SECTION CONTAINS DETAILS OF CERTAIN RISKS AND OTHER FACTORS THAT SHOULD BE GIVEN PARTICULAR CONSIDERATION BEFORE INVESTING IN THE COVERED BONDS. PROSPECTIVE INVESTORS SHOULD BE AWARE OF THE ISSUES SUMMARISED IN THAT SECTION.

Arranger

BNP PARIBAS

Dealers

(in alphabetical order)

**BNP PARIBAS
ING**

**CITIGROUP
J.P. MORGAN**

**COMMERZBANK
SOCIÉTÉ GÉNÉRALE
CORPORATE & INVESTMENT
BANKING**

**CRÉDIT AGRICOLE CIB HSBC
STANDARD CHARTERED BANK**

Offering Circular dated 6 January 2025

The Issuer, having made all reasonable enquiries, accepts responsibility for this Offering Circular, and confirms that this Offering Circular contains all information which is material in the context of the Programme, that the information contained in this Offering Circular is true and accurate in all material respects and is not misleading, that the opinions and intentions expressed in this Offering Circular are honestly held and that there are no other facts the omission of which would make any of such information or the expression of any such opinions or intentions misleading.

This Offering Circular is to be read in conjunction with all documents which are deemed to be incorporated herein by reference (see “*Documents Incorporated by Reference*” below). This Offering Circular shall be read and construed on the basis that such documents are incorporated and form part of this Offering Circular.

No representation, warranty or undertaking, express or implied, is made and no responsibility or liability is accepted by the Dealers, the Trustee or the Agents (each as defined in the Master Definitions Agreement) or any of their respective directors, officers, employees, agents, representatives, advisers or affiliates as to the authenticity, origin, validity, accuracy or completeness of the information contained or incorporated by reference in this Offering Circular or any supplement hereto or any other information provided by or purported to be provided by the Arranger, the Dealers or the Issuer in connection with the Programme, the Issuer or issue and offering of the Covered Bonds. No Dealer, the Trustee or the Agents or any of their respective directors, officers, employees, agents, representatives, advisers or affiliates accepts any liability in relation to the information contained or incorporated by reference in this Offering Circular or any other information provided by the Arranger, the Dealers or the Issuer in connection with the Programme, the Issuer or issue and offering of the Covered Bonds. Each Dealer, the Trustee or the Agents or any of their respective directors, officers, employees, agents, representatives, advisers or affiliates accordingly disclaim all and any liability whether arising in tort or contract or otherwise which it might otherwise have in respect of this Offering Circular or any such information.

No person is or has been authorised by the Issuer to give any information or to make any representation not contained in or not consistent with this Offering Circular or any other information supplied in connection with the Programme or the Covered Bonds and, if given or made, such information or representation must not be relied upon as having been authorised by the Issuer, any of the Dealers, the Trustee or the Agents or any of their respective directors, officers, employees, agents, representatives, advisers or affiliates.

Neither this Offering Circular nor any other information supplied in connection with the Programme or any Covered Bonds (i) is intended to provide the basis of any credit or other evaluation or (ii) should be considered as a recommendation or constituting an invitation or offer by the Issuer or any of the Dealers that any recipient of this Offering Circular or any other information supplied in connection with the Programme or any Covered Bonds should purchase any Covered Bonds. Each investor contemplating purchasing any Covered Bonds should make its own independent investigation of the financial condition and affairs, and its own appraisal of the creditworthiness, of the Issuer. Neither this Offering Circular nor any other information supplied in connection with the Programme or any Covered Bonds constitutes an offer or invitation by or on behalf of the Issuer, any of the Dealers, the Trustee or the Agents or any of their respective directors, officers, employees, agents, representatives, advisers or affiliates to any person to subscribe for or to purchase any Covered Bonds.

Neither the delivery of this Offering Circular nor the offering, sale or delivery of any Covered Bonds shall in any circumstances imply that the information contained herein concerning the Issuer is correct at any time subsequent to the date hereof or that any other information supplied in connection with the Programme is correct as of any time subsequent to the date indicated in the document containing the same. The Dealers, the Trustee or the Agents or any of their respective directors, officers, employees, agents, representatives, advisers or affiliates expressly do not undertake to review the financial condition or affairs of the Issuer during the life of the Programme or to advise any investor in the Covered Bonds of any information coming to their attention. Investors should review, *inter alia*, the most recently published financial statements of the Issuer when deciding whether or not to purchase any Covered Bonds.

The Covered Bonds in bearer form are subject to U.S. tax law requirements and may not be offered, sold or delivered within the United States or its possessions or to U.S. persons, except in certain transactions permitted by U.S. tax regulations. Terms used in this paragraph have the meanings given to them by the U.S. Internal Revenue Code of 1986, as amended, and the regulations promulgated thereunder.

This Offering Circular does not constitute an offer to sell or the solicitation of an offer to buy any Covered Bonds in any jurisdiction to any person to whom it is unlawful to make the offer or solicitation in such jurisdiction. The distribution of this Offering Circular and the offer or sale of Covered Bonds may be restricted by law in certain

jurisdictions. The Issuer and the Dealers do not represent that this document may be lawfully distributed, or that any Covered Bonds may be lawfully offered, in compliance with any applicable registration or other requirements in any such jurisdiction, or pursuant to an exemption available thereunder, or assume any responsibility for facilitating any such distribution or offering. In particular, no action has been taken by the Issuer or the Dealers which would permit a public offering of any Covered Bonds or distribution of this document in any jurisdiction where action for that purpose is required. Accordingly, no Covered Bonds may be offered or sold, directly or indirectly, and neither this Offering Circular nor any advertisement or other offering material may be distributed or published in any jurisdiction, except under circumstances that will result in compliance with any applicable laws and regulations and the Dealers have represented that all offers and sales by them will be made on the same terms. Persons into whose possession this Offering Circular or any Covered Bonds come must inform themselves about, and observe, any such restrictions on the distribution of this Offering Circular and the offering and sale of Covered Bonds. In particular, there are restrictions on the distribution of this Offering Circular and the offer or sale of Covered Bonds in the United States, the European Economic Area, the United Kingdom, Japan, Singapore, Hong Kong, Korea, Australia and Canada. For a description of these and certain further restrictions on offers and sales of the Covered Bonds and distribution of this Offering Circular, see “*Subscription and Sale and Transfer and Selling Restrictions*” below.

In making an investment decision, investors must rely on their own examination of the Issuer and the terms of the Covered Bonds being offered, including the merits and risks involved. The Covered Bonds have not been approved or disapproved by the U.S. Securities and Exchange Commission or any other securities commission or other regulatory authority in the United States, nor have the foregoing authorities approved this Offering Circular or confirmed the accuracy or determined the adequacy of the information contained in this Offering Circular. Any representation to the contrary is unlawful.

None of the Dealers, the Issuer, the Trustee or the Agents or any of their respective directors, officers, employees, agents, representatives, advisers or affiliates makes any representation to any investor in the Covered Bonds regarding the legality of its investment under any applicable laws. Any investor in the Covered Bonds should be able to bear the economic risk of an investment in the Covered Bonds for an indefinite period of time.

U.S. INFORMATION

The Covered Bonds have not been and will not be registered under the Securities Act and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except in certain transactions exempt from the registration requirements of the Securities Act. See “*Subscription and Sale and Transfer and Selling Restrictions*” below.

This Offering Circular may be submitted on a confidential basis in the United States to a limited number of QIBs or Institutional Accredited Investors (each as defined under “*Form of the Covered Bonds*”) for informational use solely in connection with the consideration of the purchase of the Covered Bonds being offered hereby. Its use for any other purpose in the United States is not authorised. It may not be copied or reproduced in whole or in part nor may it be distributed or any of its contents disclosed to anyone other than the prospective investors to whom it is originally submitted.

Registered Covered Bonds may be offered or sold within the United States only to QIBs or to Institutional Accredited Investors, in either case in transactions exempt from registration under the Securities Act. Each U.S. purchaser of Registered Covered Bonds is hereby notified that the offer and sale of any Registered Covered Bonds to it may be being made in reliance upon the exemption from the registration requirements of the Securities Act provided by Rule 144A.

MIFID II PRODUCT GOVERNANCE / TARGET MARKET

The applicable Pricing Supplement in respect of any Covered Bonds may include a legend entitled “MiFID II Product Governance” which will outline the target market assessment in respect of the Covered Bonds and which channels for distribution of the Covered Bonds are appropriate. Any person subsequently offering, selling or recommending the Covered Bonds (a “**distributor**”) should take into consideration the target market assessment; however, a distributor subject to Directive 2014/65/EU (as amended, “**MiFID II**”) is responsible for undertaking its own target market assessment in respect of the Covered Bonds (by either adopting or refining the target market assessment) and determining appropriate distribution channels.

A determination will be made in relation to each issue about whether, for the purpose of the MiFID Product Governance rules under EU Delegated Directive 2017/593 (the “**MiFID Product Governance Rules**”), any Dealer subscribing for any Covered Bonds is a manufacturer in respect of such Covered Bonds, but otherwise neither the Arranger nor the Dealers nor any of their respective affiliates will be a manufacturer for the purpose of the MiFID Product Governance Rules.

UK MIFIR PRODUCT GOVERNANCE / TARGET MARKET

The applicable Pricing Supplement in respect of any Covered Bonds may include a legend entitled “UK MiFIR Product Governance” which will outline the target market assessment in respect of the Covered Bonds and which channels for distribution of the Covered Bonds are appropriate. Any person subsequently offering, selling or recommending the Covered Bonds (a “**distributor**”) should take into consideration the target market assessment; however, a distributor subject to the FCA Handbook Product Intervention and Product Governance Sourcebook (the “**UK MiFIR Product Governance Rules**”) is responsible for undertaking its own target market assessment in respect of the Covered Bonds (by either adopting or refining the target market assessment) and determining appropriate distribution channels.

A determination will be made in relation to each issue about whether, for the purpose of the UK MiFIR Product Governance Rules, any Dealer subscribing for any Covered Bonds is a manufacturer in respect of such Covered Bonds, but otherwise neither the Arranger nor the Dealers nor any of their respective affiliates will be a manufacturer for the purpose of the UK MiFIR Product Governance Rules.

NOTICE TO EEA RETAIL INVESTORS

If the applicable Pricing Supplement in respect of any Covered Bonds includes a legend entitled “Prohibition of Sales to EEA Retail Investors” or otherwise specifies “Prohibition of Sales to EEA Retail Investors” as “Applicable”, such Covered Bonds are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area (“**EEA**”). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; or (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, “**Insurance Distribution Directive**”), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (as amended, the “**Prospectus Regulation**”). Consequently, no key information document required by Regulation (EU) No. 1286/2014 (as amended, the “**PRIIPs Regulation**”) for offering or selling the Covered Bonds or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Covered Bonds or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.

NOTICE TO UK RETAIL INVESTORS

If the applicable Pricing Supplement in respect of any Covered Bonds includes a legend entitled “Prohibition of Sales to UK Retail Investors” or otherwise specifies “Prohibition of Sales to UK Retail Investors” as “Applicable”, such Covered Bonds are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom (the “**UK**”). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No. 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 (“**EUWA**”); (ii) a customer within the meaning of the provisions of the Financial Services and Markets Act 2000 (“**FSMA**”) and any rules or regulations made under the FSMA to implement the Insurance Distribution Directive, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No. 600/2014 as it forms part of domestic law by virtue of the EUWA or (iii) not a “qualified investor” as defined in Article 2 of the Prospectus Regulation as it forms part of the domestic law of the UK by virtue of the EUWA (the “**UK Prospectus Regulation**”). Consequently, no key information document required by the PRIIPs Regulation as it forms part of domestic law by virtue of the EUWA (the “**UK PRIIPs Regulation**”) for offering or selling the Covered Bonds or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the Covered Bonds or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.

SINGAPORE INFORMATION

Notification under Section 309B(1)(c) of the Securities and Futures Act 2001 of Singapore (the “SFA”) — Unless otherwise stated in the Pricing Supplement in respect of any Covered Bonds, the Issuer has determined, and hereby notifies all relevant persons (as defined in Section 309A(1) of the SFA), that the Covered Bonds to be issued under the Programme shall be capital markets products other than prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore) and Specified Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

NOTICE TO PERSONS IN THE UNITED KINGDOM

This Offering Circular is for distribution only to persons who (i) are outside the United Kingdom; (ii) have professional experience in matters relating to investments and who qualify as investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the “**Financial Promotion Order**”)); (iii) fall within Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the Financial Promotion Order; or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) in connection with the issue or sale of any Securities may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as “**Relevant Persons**”). This Offering Circular is directed only at Relevant Persons and must not be acted or relied upon by persons who are not Relevant Persons. Any investment or investment activity to which this Offering Circular relates is available only to Relevant Persons and will be engaged in only with Relevant Persons.

AVAILABLE INFORMATION

To permit compliance with Rule 144A in connection with any resales or other transfers of Covered Bonds that are “restricted securities” within the meaning of the Securities Act, the Issuer has undertaken in the Trust Deed (as defined herein) to furnish, upon the request of a holder of such Covered Bonds or any beneficial interest therein, to such holder or to a prospective purchaser designated by him, the information required to be delivered under Rule 144A(d)(4) under the Securities Act if, at the time of the request, the Issuer is neither a reporting company under Section 13 or 15(d) of the U.S. Securities Exchange Act of 1934, as amended, (the “**Exchange Act**”) nor exempt from reporting pursuant to Rule 12g3-2(b) thereunder.

KOREAN SELLING RESTRICTIONS

The Covered Bonds have not been and will not be registered with the Financial Services Commission of Korea under the Financial Investment Services and Capital Markets Act of Korea. Accordingly, the Covered Bonds may not be offered, sold or delivered, directly or indirectly, in Korea or to, or for the account or benefit of, any resident of Korea (as such term is defined under the Foreign Exchange Transaction Act of Korea and the regulations thereunder) or to others for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea, except as otherwise permitted under applicable Korean laws and regulations. In addition, during the first year after the issuance of the Covered Bonds, the Covered Bonds may not be transferred to any resident of Korea (i) (in the case where the Covered Bonds are issued in reliance on the exemption as set out in Article 2-2-2, Paragraph 2, Item 3 of the Regulation on Issuance of Securities and Public Disclosure of Korea) other than a Korean qualified institutional buyer (a “Korean QIB”, as defined in the above regulation) who is registered with the Korea Financial Investment Association as a Korean QIB, provided that (1) the Covered Bonds are denominated, and the principal and interest payments thereunder are made, in a currency other than Korean won, (2) the amount of the Covered Bonds acquired by the Korean QIBs in the primary market is limited to not more than 20% of the aggregate principal amount of the Covered Bonds, (3) the Covered Bonds are listed on one of the major overseas securities markets designated by the Financial Supervisory Service of Korea, or certain procedures, such as registration or report with a foreign financial investment regulator of the country in which any major overseas securities market is established, have been completed for offering of the Covered Bonds, (4) the one-year restriction on transfer of the Covered Bonds to any resident of Korea other than the Korean QIBs is expressly stated in the Covered Bonds, the relevant purchase agreement and offering circular and (5) the Issuer and the Dealers shall individually or collectively keep the evidence of fulfilment of conditions (1) through (4) above after having taken necessary actions therefor or (ii) except as otherwise permitted under applicable Korean laws and regulations.

SERVICE OF PROCESS AND ENFORCEMENT OF CIVIL LIABILITIES

The Issuer is a corporation organised under the laws of Korea. All of the officers and directors named herein reside outside the United States and all or a substantial portion of the assets of the Issuer and of such officers and directors are located outside the United States. As a result, it may not be possible for investors to effect service of process within the U.S. upon the Issuer or such persons, or to enforce judgements against them obtained in courts in the U.S. predicated upon civil liabilities of the Issuer or such directors and officers under laws other than Korean law, including any judgement predicated upon U.S. federal securities laws. There is doubt as to the enforceability in Korea in original actions or in actions for enforcement of judgements of U.S. courts of civil liabilities predicated solely upon the federal securities laws of the United States.

FORWARD-LOOKING STATEMENTS

Certain statements in this Offering Circular constitute “forward-looking statements,” including statements regarding the Issuer’s expectations and projections for future operating performance and business prospects. The words “believe,” “expect,” “anticipate,” “estimate,” “project,” “will,” “aim,” “will likely result,” “will continue,” “intend,” “plan,” “contemplate,” “seek to,” “future,” “objective,” “goal,” “should,” “will pursue” and similar expressions or variations of these expressions identify forward-looking statements. In addition, all statements other than statements of historical facts included in this Offering Circular, including, without limitation, those regarding the Issuer’s financial position and results, business strategy, plans and objectives of management for future operations, including development plans and objectives relating to the Issuer’s products and services, are forward-looking statements. Such forward-looking statements and any other projections contained in this Offering Circular (whether made by the Issuer or any third party) involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements to be materially different from the future results, performance or achievements expressed or implied by forward-looking statements. Such forward-looking statements are based on current beliefs, assumptions, expectations, estimates and projections regarding the Issuer’s present and future business strategies and the environment in which the Issuer will operate in the future. Important factors that could cause some or all of those assumptions not to occur or cause the Issuer’s actual results, performance or achievements to differ materially from those in the forward-looking statements include, among other things:

- the condition of and changes in the Korean, Asian or global economies, including changes in consumer confidence and spending;
- changes in interest rates;
- future levels of non-performing loans;
- changes in government regulations affecting the Issuer’s businesses in Korea and in other jurisdictions where the Issuer operates;
- the Issuer’s ability to successfully implement its business strategy; and
- competition in the financial services industry.

Additional factors that could cause the Issuer’s actual results, performance or achievements to differ materially include, but are not limited to, those discussed under “*Investment Considerations*.” Any forward-looking statements contained in this Offering Circular speak only as of the date of this Offering Circular. Each of the Issuer and the Dealers expressly disclaims any obligation or undertaking to release, publicly or otherwise, any updates or revisions to any forward-looking statement contained herein to reflect any change in the Issuer’s expectations with regard thereto or any change in events, conditions, assumptions or circumstances on which any such statement was based.

CERTAIN DEFINED TERMS AND CONVENTIONS

The Issuer is the surviving entity resulting from a merger between Original Hana Bank (as defined below) and Korea Exchange Bank, which was completed in 2015. Upon completion of the merger, the Issuer changed its name to KEB Hana Bank. In February 2020, the Issuer changed its brand name to “Hana Bank” while maintaining “KEB Hana Bank” as its English legal name. See “*Hana Bank — History*.” Accordingly, unless otherwise specified or the context otherwise requires, in this Offering Circular:

- References to “we,” “us,” “our,” the “Issuer,” the “Bank” and “Hana Bank” are to KEB Hana Bank.

- References to the “**Merger**” are to the merger between Original Hana Bank and Korea Exchange Bank on 1 September 2015.
- References to “**Original Hana Bank**” are to Hana Bank, the Issuer’s predecessor which merged with and into Korea Exchange Bank through the Merger.
- References to “**Hana Financial Group**” are to Hana Financial Group, Inc., the Bank’s holding company.

References to “**Korea**” are to the Republic of Korea. References to “**U.S.**” or the “**United States**” are to the United States of America. References to “**PRC**” or “**China**” are to the People’s Republic of China. References to the “**Government**” are to the government of Korea. The “**Financial Services Commission**” or the “**FSC**” shall mean the Financial Services Commission of Korea, and the “**Financial Supervisory Service**” or the “**FSS**” shall mean the Financial Supervisory Service of Korea, the executive body of the FSC.

All references in this Offering Circular to “**KRW**,” “**Won**” and “**₩**” refer to the currency of Korea, those to “**U.S. dollars**” and “**US\$**” are to United States dollars, those to “**Japanese Yen**” and “**yen**” are to the currency of Japan, those to “**S\$**” are to the currency of Singapore, those to “**Sterling**” and “**£**” are to the currency of the United Kingdom, those to “**Chinese Renminbi**” are to the currency of China and those to “**Euro**,” “**euro**” and “**€**” are to the currency introduced at the start of the third stage of the European economic and monetary union pursuant to the Treaty establishing the European Community, as amended.

Except where the context otherwise requires, capitalised terms used and not otherwise defined in this Offering Circular shall bear the meanings given to them in the master definitions schedule made between, *inter alios*, the Issuer, the Trustee, the Issuing and Paying Agent and the Registrars (as amended and/or supplemented and/or restated from time to time, the “**Master Definitions Agreement**”) as set forth in the Glossary.

PRESENTATION OF FINANCIAL AND OTHER INFORMATION

The Issuer maintains its financial books and records and prepares its financial statements in Won in accordance with the Korean equivalent of International Financial Reporting Standards (“**K-IFRS**”), which differ in certain significant respects from generally accepted accounting principles in other countries, including generally accepted accounting principles in the United States (“**U.S. GAAP**”). The Issuer has made no attempt to identify or quantify the impact of differences between K-IFRS and U.S. GAAP.

Unless otherwise stated, all financial information contained in this Offering Circular is presented on a consolidated basis in accordance with K-IFRS together with, where applicable, accounting and reporting guidelines under Korean accounting standards applicable to the banking industry. Financial and other information contained in this Offering Circular regarding individual borrowers, groups or categories of borrowers or classifications by industry, geography, size or other factors, including information as to loans, credits, total exposures, allowances, collateral values, nonperforming loans and other items, has been derived solely from the Issuer’s internal management information systems.

Unless otherwise stated, the financial data of the Issuer as of and for the years ended 31 December 2021, 2022 and 2023 contained in this Offering Circular have been derived from the audited consolidated financial statements of the Issuer included herein, which have been prepared in accordance with K-IFRS. The financial data of the Issuer as of 30 September 2024 and for the nine months ended 30 September 2023 and 2024 contained in this Offering Circular have been derived from the Issuer’s unaudited interim consolidated financial statements included herein, which have been prepared in accordance with K-IFRS 1034 Interim Financial Reporting.

Certain ratios for the nine months ended 30 September 2023 and 2024 have been stated on an annualised basis, calculated by dividing the denominator by three and multiplying by four. Annualised ratios have been stated solely for the purposes of comparison with prior annual periods and should not be relied upon to give any indication of the actual full-year financial performance of the Issuer. Actual ratios for the annual periods may differ significantly from the annualised ratios and are subject to many factors beyond the Issuer’s control.

All references in this document to “**balance sheet**” are to the statement of financial position.

Under the Korean Banking Act (the “**Bank Act**”), assets accepted in trust by a bank in Korea must be segregated from its other assets in the accounts of that bank. Accordingly, banks, including the Issuer, engaged in the

banking and trust businesses must maintain two separate accounts, the bank account and the trust account, and two separate sets of records, which provide details of their respective banking and trust businesses. All financial information contained in this Offering Circular relating to the Issuer is presented with respect to the Issuer's bank account only, unless stated otherwise.

Unless otherwise specified, all conversions of Won into U.S. dollars were made at the base rate under the market average exchange system, provided by Seoul Money Brokerage Services, Ltd. in Seoul for U.S. dollars against Won (the "**Market Average Exchange Rate**"). No representation is made that the Won or the U.S. dollar amounts referred to in this Offering Circular could have been or could be converted into U.S. dollars or Won, as the case may be, at any particular rate or at all.

Any discrepancies in any table between totals and the sums of the amounts listed are due to rounding. References to billions are to thousands of millions.

In connection with the issue of any Tranche of Covered Bonds, the Dealer or Dealers (if any) named as the Stabilisation Manager(s) (or persons acting on behalf of any Stabilisation Manager(s)) in the applicable Pricing Supplement may over-allot Covered Bonds or effect transactions with a view to supporting the market price of the Covered Bonds at a level higher than that which might otherwise prevail. However, there is no assurance that the Stabilisation Manager(s) (or persons acting on behalf of a Stabilisation Manager) will undertake stabilisation action. Any stabilisation action may begin on or after the date on which adequate public disclosure of the terms of the offer of the relevant Tranche of Covered Bonds is made and, if begun, may be ended at any time, but it must end no later than the earlier of 30 days after the issue date of the relevant Tranche of Covered Bonds and 60 days after the date of the allotment of the relevant Tranche of Covered Bonds. Any stabilisation action or over-allotment must be conducted by the relevant Stabilisation Manager(s) (or person(s) acting on behalf of Stabilisation Manager(s)) in accordance with all applicable laws and rules.

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DOCUMENTS INCORPORATED BY REFERENCE

The following documents shall be deemed to be incorporated in, and to form part of, this Offering Circular:

- (a) the publicly available audited consolidated and audited separate financial statements and the publicly available unaudited consolidated and unaudited separate interim financial statements of the Issuer for the most recent financial period; and
- (b) all supplements or amendments to this Offering Circular circulated by the Issuer from time to time,

save that any statement contained herein or in a document which is deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purpose of this Offering Circular to the extent that a statement contained in any such subsequent document which is deemed to be incorporated by reference herein modifies or supersedes such earlier statement (whether expressly, by implication or otherwise).

The Issuer will provide, without charge, to each person to whom a copy of this Offering Circular has been delivered, upon the written request of such person, a copy of any or all of the documents deemed to be incorporated herein by reference unless such documents have been modified or superseded as specified above. Written requests for such documents should be directed to the Issuer at its registered office set out at the end of this Offering Circular. In addition, such documents will be available for inspection, free of charge at the specified office of the Issuing and Paying Agent.

The Issuer will, in connection with the listing and quotation of the Covered Bonds on the SGX-ST, so long as the rules of the SGX-ST so require, in the event of any material change which is not reflected in this Offering Circular, prepare a supplement to this Offering Circular or publish a new Offering Circular for use in connection with any subsequent issue of the Covered Bonds to be listed on the SGX-ST.

If the terms of the Programme are modified or amended in a manner which would make this Offering Circular, as supplemented, materially inaccurate or misleading, a new Offering Circular will be prepared.

GENERAL DESCRIPTION OF THE PROGRAMME

Under the Programme, the Issuer may from time to time issue Covered Bonds denominated in any currency and with any maturity, subject to the terms as set out herein. A summary of the terms and conditions of the Programme and the Covered Bonds appears below. The applicable terms of any Covered Bonds will be agreed among the Issuer, the Arranger and the relevant Dealer prior to the issue of the Covered Bonds and will be set out in the Terms and Conditions of the Covered Bonds endorsed on, or incorporated by reference into, the Covered Bonds, as modified and supplemented by the applicable Pricing Supplement attached to, or endorsed on, such Covered Bonds, as more fully described under “*Form of the Covered Bonds*” below.

This Offering Circular and any supplement will only be valid for the offering of Covered Bonds in an aggregate nominal amount of Covered Bonds which, when added to the aggregate nominal amount then outstanding of all Covered Bonds previously or simultaneously issued under the Programme, does not exceed US\$5,000,000,000 or its equivalent in other currencies. For the purpose of calculating the U.S. dollar equivalent of the aggregate nominal amount of Covered Bonds issued under the Programme from time to time, the U.S. dollar equivalent of Covered Bonds denominated in another Specified Currency (as specified in the applicable Pricing Supplement in relation to the Covered Bonds, described under “*Form of the Covered Bonds*” below) shall be determined, at the discretion of the Issuer, either as of the date on which agreement is reached for the issue of Covered Bonds or on the preceding day on which commercial banks and foreign exchange markets are open for business in London, in each case on the basis of the spot rate for the sale of the U.S. dollar against the purchase of such Specified Currency in the London foreign exchange market quoted by any leading international bank selected by the Issuer on the relevant day of calculation.

SUMMARY OF THE PROGRAMME

The following description does not purport to be complete and is qualified in its entirety by the remainder of this Offering Circular. Words and expressions defined in the “Terms and Conditions of the Covered Bonds” below or elsewhere in this Offering Circular have the same meanings in this overview.

Issuer	KEB Hana Bank acting through its principal office in Korea.
Issuer’s Legal Entity Identifier	6RPK2YDJN6L35AS0M510.
Description	US\$5,000,000,000 Global Covered Bond Programme.
Arranger	BNP PARIBAS.
Dealers	BNP PARIBAS, Citigroup Global Markets Inc., Commerzbank Aktiengesellschaft, Crédit Agricole Corporate and Investment Bank, The Hongkong and Shanghai Banking Corporation Limited, ING Bank N.V., J.P. Morgan Securities plc, Société Générale and Standard Chartered Bank and others as appointed by the Issuer for a specific issue of Covered Bonds.
Trustee	Citicorp International Limited.
Issuing and Paying Agent, Paying Agent, Calculation Agent and Transfer Agent	Citibank, N.A., London Branch.
Unrestricted Registrar and Restricted Registrar	Citicorp International Limited.
Asset Monitor	Korea Housing Finance Corporation.
Swap Providers	As appointed under a Swap Agreement by the Issuer for a specific Series of Covered Bonds.
Transaction Account Bank and Reserve Account Bank (in respect of the Reserve Cash Account)	The Issuer, acting through its principal office in Korea.
Reserve Account Bank (in respect of the Swap Cash Collateral Accounts)	Citibank, N.A., Hong Kong Branch.
Custodian Bank	Citibank, N.A., Hong Kong Branch.
Programme Size	The aggregate principal amount of Covered Bonds outstanding at any time will not exceed US\$5,000,000,000 (or its equivalent in another currency calculated as described herein). The Programme size may be increased from time to time without the consent of the holders of Covered Bonds, provided that the outstanding principal amount of the Covered Bonds under the Korean Covered Bond Laws will, at all times, be subject to the limitations on the outstanding principal amount of the Covered Bonds under the Korean Covered Bond Laws.
Currencies	Any currency agreed among the Issuer, the Arranger and the relevant Dealer(s), subject to any applicable legal or regulatory restrictions (a “Specified Currency”).

Status

The Covered Bonds and the Coupons constitute unsubordinated obligations of the Issuer issued in accordance with the Act on Issuance of Covered Bonds (the “**Korean Covered Bond Act**”) and the enforcement decree for the Korean Covered Bond Act (the “**Enforcement Decree**”) and supervision regulation on issuance of covered bonds issued by the FSC under the authority conferred on it by the Korean Covered Bond Act related thereto as the same may be supplemented, amended, modified or varied from time to time (together, the “**Korean Covered Bond Laws**”) and shall at all times rank *pari passu* and without any preference among themselves and with all other obligations of the Issuer that have been given prioritised claim over the Cover Pool pursuant to the Korean Covered Bond Laws and given the same priority as the Covered Bonds pursuant to the Establishment Deed. To the extent that claims of the Covered Bondholders are not met out of the Cover Pool in accordance with the Korean Covered Bond Laws and the Establishment Deed, the residual claims will at all times rank *pari passu* at least equally with all other unsecured and unsubordinated obligations of the Issuer. See also “*Summary of Korean Legislation Regarding Covered Bonds.*”

Maturities

Such maturities as may be agreed among the Issuer, the Arranger and the relevant Dealer(s), subject to such minimum or maximum maturity as may be allowed or required from time to time by the relevant central bank (or equivalent body) or any laws or regulations applicable to the Issuer or the relevant Specified Currency.

Issue Price

The Covered Bonds may be issued at par, or at a discount to, or at a premium over, par as specified in the relevant Pricing Supplement. The price and amount of the Covered Bonds to be issued will be determined by the Issuer, the Arranger and the relevant Dealer(s) at the time of issue in accordance with prevailing market conditions.

Form of Covered Bonds

The Covered Bonds may be issued in bearer (the “**Bearer Covered Bonds**”) or registered form (the “**Registered Covered Bonds**”). Registered Covered Bonds will not be exchangeable for Bearer Covered Bonds and vice versa.

Unless otherwise specified in the applicable Pricing Supplement, the Covered Bonds offered in the United States to QIBs in reliance on Rule 144A will be represented by one or more Restricted Global Certificates and the Covered Bonds offered outside the United States in reliance on Regulation S will be represented by one or more Unrestricted Global Certificates (if in registered form) or Global Covered Bonds (if in bearer form). Copies of the Restricted Global Certificates, Unrestricted Global Certificates and Global Covered Bonds will be available for inspection at the specified office of the Issuing and Paying Agent.

Restricted Global Certificates representing the Covered Bonds will be held by or on behalf of the Depositary Trust Company (“**DTC**”) for the benefit of participants in DTC. Unrestricted Global Certificates representing the Covered Bonds will either (i) be held by or on behalf of DTC for the benefit of participants in DTC or (ii) be registered in the name of a nominee for, and deposited with, the Common Depositary. Global Covered Bonds representing the Covered Bonds will be deposited with the Common Depositary, each as specified in the relevant Pricing Supplement.

After the Programme Date, the Issuer may (without the consent of the existing Covered Bondholders) modify Transaction Documents to provide for the issuance of Series or Tranches of Covered Bonds in the form of *Namensschuldverschreibungen* (“**N Bonds**”). The terms and conditions of the N Bonds would be governed by German law, except that Condition 3 (*Status*) will be governed by, and construed in accordance with, Korean law. The N Bonds would not be listed or traded on any stock exchange, but would be issued in registered form and placed privately with certain eligible investors. The N Bonds would constitute “Covered Bonds” issued under the Programme, ranking *pari passu* with all other Covered Bonds issued from time to time. See further “*Investment Considerations — Risks Relating to the Covered Bonds — The Trustee may agree to modifications to the Transaction Documents or waive breaches without the Covered Bondholders’ prior consent.*”

Denomination of Covered Bonds

The Covered Bonds will be issued in such denominations as may be specified in the relevant Pricing Supplement, subject to: (i) a minimum denomination of US\$200,000 (or, in the case of Covered Bonds not denominated in U.S. dollars, the equivalent thereof in such foreign currency, rounded down to the nearest 1,000 units of such foreign currency, but so that in no event will the minimum denomination be lower than €100,000 or its equivalent at the date of issue of the relevant Covered Bonds) and integral multiples of US\$1,000 (or, in the case of Covered Bonds not denominated in U.S. dollars, 1,000 units of such foreign currency) in excess thereof; and (ii) compliance with all applicable legal and/or regulatory and/or central bank requirements.

Interest

The Covered Bonds may be issued as fixed rate or floating rate, as provided in the relevant Pricing Supplement.

Yield to Maturity Date (Fixed Rate Covered Bonds only)

The yield is calculated at the Issue Date on the basis of the Issue Price. It is not an indication of future yield.

Interest Payments

Interest may be paid monthly, quarterly, semi-annually, annually or at such other intervals as are described in the applicable Pricing Supplement.

Redemption

The applicable Pricing Supplement will indicate the scheduled maturity date of the Covered Bonds (the “**Maturity Date**”). The Covered Bonds are redeemable at par.

Early redemption of the Covered Bonds will be permitted for taxation reasons. Early redemption at the option of the Issuer or at the option of the holder of the Covered Bond will otherwise be permitted only to the extent specified in the relevant Pricing Supplement. Covered Bonds denominated in Sterling may not be redeemed prior to one year and one day from the date of issue unless the redemption value of each such Covered Bond is not less than £100,000.

Extended Maturity Date

The applicable Pricing Supplement may provide that an Extended Maturity Date will apply to the relevant Series of Covered Bonds.

In regard to redemption of Covered Bonds to which an Extended Maturity Date so applies, if the Issuer fails to redeem all of the relevant Series of Covered Bonds in full on the Maturity Date or within 10 days thereafter, the maturity of the Covered Bonds and the date on which such Covered Bonds will be due and payable for the

purposes of the Conditions will be automatically extended up to but no later than the Extended Maturity Date, subject as otherwise provided for in the applicable Pricing Supplement. The Issuer (or, if an Issuer EOD Notice has been served on the Issuer, the Asset Monitor on behalf of the Issuer) shall give notice to the holders of Covered Bonds and to the Trustee, the Paying Agents and the Rating Agencies in writing at least five Business Days prior to the Maturity Date of the Series of Covered Bonds confirming whether or not it intends to redeem all or any of the principal amount outstanding in respect of such Series of Covered Bonds on the Maturity Date or within 10 days thereafter. In that event, the Issuer may redeem all or any part of the principal amount outstanding of the Covered Bonds on any Interest Payment Date falling after the Maturity Date up to and including the Extended Maturity Date or as otherwise provided for in the applicable Pricing Supplement.

In the event of the extension of the maturity as described above, the Covered Bonds will bear interest on the principal amount outstanding of the Covered Bonds from (and including) the Maturity Date to (but excluding) the earlier of the Interest Payment Date after the Maturity Date on which the Covered Bonds are redeemed in full or the Extended Maturity Date and will be payable in respect of the interest period ending immediately prior to the relevant Interest Payment Date in arrear or as otherwise provided for in the applicable Pricing Supplement on each Interest Payment Date after the Maturity Date at the rate provided for in the applicable Pricing Supplement. The final Interest Payment Date shall fall no later than the Extended Maturity Date.

In the case of a Series of Covered Bonds to which an Extended Maturity Date applies, those Covered Bonds may be issued as fixed rate or floating rate in respect of the period from (and including) the Issue Date to (but excluding) the Maturity Date; and will be issued as floating rate in respect of the period from (and including) the Maturity Date to (but excluding) the Extended Maturity Date as set out in the applicable Pricing Supplement.

Taxation

All payments in respect of the Covered Bonds will be made free and clear of, and without withholding or deduction for or on account of Korean withholding taxes unless required by law. If such withholdings are required by Korean law, the Issuer will in certain circumstances pay certain additional amounts as described in, and subject to exceptions set out in, Condition 7.

Further Issues

Subject as provided in Conditions 10(c) and 15 and the satisfaction of other relevant requirements under the Korean Covered Bond Laws and the Transaction Documents, the Issuer may from time to time, without the consent of the Covered Bondholders of Covered Bonds of any Series, create and issue further securities having the same terms and conditions as any Series of Covered Bonds in all respects (or in all respects except for the amount of the first payment of interest, if any, on them), which will be consolidated and form a single Series with the outstanding Covered Bonds of such Series.

Issuer Events of Default

As set out in Condition 10(a) (*Issuer Events of Default*).

Covered Bond Events of Default

As set out in Condition 10(b) (*Covered Bond Events of Default*).

Cross Default and Other Events of Default

None of the Covered Bonds will accelerate on an Issuer Event of Default, nor will they accelerate automatically on a Covered Bond Event of Default.

If an Issuer Event of Default occurs and the Trustee serves an Issuer EOD Notice to the Issuer, then the Issuer shall not issue any further Covered Bonds and the Asset Monitor shall, among other things, (i) if the Issuer fails to do so within 15 Korean Business Days following an Issuer EOD Notice, notify Obligors of the registration of the Mortgage Loans as part of the Cover Pool and of the Asset Monitor's rights to dispose of the Cover Pool, (ii) manage, maintain and/or dispose of the Cover Pool (including manage amounts receivable and payable in respect of the Cover Pool or the Priority Payment Rights) and, (iii) (if the Issuer is a Transaction Account Bank and/or Reserve Account Bank) replace the Issuer as Account Bank of the relevant Cover Pool Cash Accounts.

All Covered Bonds issued under the Programme will accelerate following a Covered Bond Event of Default (subject to applicable grace periods) if (i) the Trustee exercises its discretion to accelerate, (ii) the Trustee accelerates following a request in writing by the holders of at least 25% of the aggregate principal amount of the Covered Bonds of all Series then outstanding, as if they were a single Series, or (iii) the Trustee accelerates following an Extraordinary Resolution of the Covered Bondholders of all Series then outstanding.

Acceleration by the Trustee as described in (ii) or (iii) above is subject in each case to the Trustee being indemnified and/or secured and/or pre-funded to its satisfaction.

Negative Pledge

None.

Listing and Admission to Trading

Approval in-principle has been received from the SGX-ST in connection with the Programme and application will be made for the listing and quotation of any Covered Bonds that may be issued pursuant to the Programme and which are agreed, at or prior to the time of issue thereof, to be so listed and quoted on the SGX-ST. Such permission will be granted when such Covered Bonds have been admitted for listing and quotation on the SGX-ST. The Covered Bonds may also be listed on such other or further stock exchange(s) as may be agreed among the Issuer, the Arranger and the relevant Dealer in relation to each Series. For so long as any Covered Bonds are listed on the SGX-ST and the rules of the SGX-ST so require, such Covered Bonds, if traded on the SGX-ST, will be traded in a minimum board lot size of S\$200,000 (or its equivalent in foreign currencies).

Covered Bonds may also be issued under the Programme on an unlisted basis or be admitted to listing, trading and/or quotation by other stock exchanges, listing authorities and/or quotation by other stock exchanges, listing authorities and/or quotation systems, and the Pricing Supplement applicable to a Series will specify whether or not the Covered Bonds of such Series will be admitted for listing and quotation on the SGX-ST, or admitted to listing, trading and/or quotation by any other stock exchange, listing authority and/or quotation system.

Governing Law

The Covered Bonds will be governed by, and construed in accordance with, English law, except that (i) Condition 3 (*Status*) will be governed by, and construed in accordance with, Korean law and (ii) the N Bonds will be governed by, and construed in accordance with, German law. The Korean Account Bank Agreement and the Asset Monitor Agreement will be governed by, and construed in accordance with, Korean law. The Hong Kong Account Bank Agreement will be governed by, and construed in accordance with, Hong Kong law. All other Transaction Documents will be governed by, and construed in accordance with, English law.

Selling Restrictions

The Covered Bonds have not been and will not be registered under the Securities Act or any state securities laws and may not be offered or sold directly or indirectly within the United States or to or for the benefit of U.S. persons, except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. In addition, there are certain restrictions on the offer, sale and transfer of the Covered Bonds in the European Economic Area and the United Kingdom, and such other restrictions as may be required in connection with the offer and sale of a particular Series of Covered Bonds. See “*Subscription and Sale and Transfer and Selling Restrictions.*”

Ratings

As of the date of this Offering Circular, the Covered Bonds issued under the Programme are expected to be assigned an “AAA” rating by S&P and an “AAA” rating by Fitch. The Issuer may also obtain a rating of the Covered Bonds issued under the Programme from one or more other credit rating agencies. Details of the ratings and whether or not the Covered Bonds of any certain Series are rated specifically will be specified in the applicable Pricing Supplement.

The Issuer cannot assure investors that any such ratings will not change in the future. A rating reflects only the views of the relevant rating agency and is not a recommendation to buy, sell or hold the Covered Bonds and may be subject to suspension, reduction or withdrawal at any time by the assigning rating agency. A rating of a certain Series of Covered Bonds to be issued under the Programme, if obtained, will be specified in the applicable Pricing Supplement.

The Issuer has no obligation to maintain a particular rating of the Covered Bonds.

Terms and Conditions

The terms and conditions applicable to each Series will be as agreed among the Issuer, the Arranger and the relevant Dealer(s) at or prior to the time of issuance of such Series, and will be specified in the relevant Pricing Supplement. The terms and conditions applicable to each Series will therefore be those set out in the Conditions in this Offering Circular, as supplemented, modified or replaced by the relevant Pricing Supplement in relation to each Series.

Investment Considerations

There are certain factors that may affect the Issuer’s ability to fulfil its obligations under the Covered Bonds. These are set out under the heading “*Investment Considerations.*” Investors should carefully consider these investment considerations and all of the information in this Offering Circular before deciding to buy the Covered Bonds.

**ISDA Determination / ISDA
Definitions**

Notwithstanding anything included in the ISDA Definitions and/or ISDA Determinations to the contrary, the Issuer agrees that the Citibank, N.A., London Branch in its capacity as Calculation Agent will have no obligation to exercise any discretion (including, but not limited to, determinations of alternative or substitute benchmarks, successor reference rates, screen pages, interest adjustment factors/fractions or spreads, market disruptions, benchmark amendment conforming changes or selection and polling of reference banks), and to the extent the ISDA Definitions and/or ISDA Determinations require, for a particular Series of Covered Bonds, the Calculation Agent to exercise any such discretions and/or make such determinations and/or take such actions, such references shall be construed as the Issuer (or its financial adviser or alternate agent appointed by the Issuer) exercising such discretions and/or determinations and/or taking such actions and not the Calculation Agent.

FORM OF THE COVERED BONDS

Initial Issue of the Covered Bonds

Global Covered Bonds and Global Certificates may be delivered on or prior to the original Issue Date of the Tranche to the Common Depositary.

Upon the initial deposit of a Global Covered Bonds with the Common Depositary or registration of Registered Covered Bonds in the name of any nominee of the Common Depositary for Euroclear Bank SA/NV (“**Euroclear**”) and Clearstream Banking S.A. (“**Clearstream**”) and delivery of the relevant Global Certificate to the Common Depositary, Euroclear or Clearstream will credit each subscriber with a nominal amount of Covered Bonds equal to the nominal amount thereof for which it has subscribed and paid.

Upon the initial deposit of a Global Certificate in respect of, and registration of, Registered Covered Bonds in the name of a nominee for the DTC and delivery of the relevant Global Certificate to the custodian for DTC, DTC will credit each participant with a nominal amount of Covered Bonds equal to the nominal amount thereof for which it has subscribed and paid.

Covered Bonds that are initially deposited with the Common Depositary may also be credited to the accounts of subscribers with (if indicated in the relevant Pricing Supplement) other clearing systems through direct or indirect accounts with Euroclear and Clearstream held by such other clearing systems. Conversely, Covered Bonds that are initially deposited with any other clearing system may similarly be credited to the accounts of subscribers with Euroclear, Clearstream or other clearing systems.

Relationship of Accountholders with Clearing Systems

Each of the persons shown in the records of Euroclear, Clearstream, DTC or any alternative clearing system (“**Alternative Clearing System**”) as the holder of a Covered Bond represented by a Global Covered Bond or a Global Certificate must look solely to Euroclear, Clearstream, DTC or any such Alternative Clearing System (as the case may be) for his share of each payment made by the Issuer to the bearer of such Global Covered Bond or the holder of the underlying Registered Covered Bond, as the case may be, and in relation to all other rights arising under the Global Covered Bonds or Global Certificates, subject to and in accordance with the respective rules and procedures of Euroclear, Clearstream, DTC or such Alternative Clearing System (as the case may be). Such persons shall have no claim directly against the Issuer in respect of payments due on the Covered Bonds for so long as the Covered Bonds are represented by such Global Covered Bond or Global Certificate and such obligations of the Issuer will be discharged by payment to the bearer of such Global Covered Bond or the holder of the underlying Registered Covered Bonds, as the case may be, in respect of each amount so paid.

Exchange

(a) Temporary Global Covered Bonds

Each temporary bearer Global Covered Bond (the “**Temporary Global Covered Bond**”) will be exchangeable, free of charge to the holder, on or after its Exchange Date:

- (i) if the relevant Pricing Supplement indicates that such Global Covered Bond is issued in compliance with U.S. Treas. Reg. §1.163-5(c)(2)(i)(C) (or any successor rules in substantially the same form that is applicable for purposes of Section 4701 of the Code) or in a transaction to which United States Tax Equity and Fiscal Responsibility Act of 1982 is not applicable, in whole, but not in part, for the Definitive Covered Bond defined and described below; and
- (ii) otherwise, in whole or in part upon certification as to non-U.S. beneficial ownership in the form set out in the Agency Agreement for interests in a Permanent Global Covered Bond or, if so provided in the relevant Pricing Supplement, for Definitive Covered Bonds.

(b) Permanent Global Covered Bond

Each permanent bearer Global Covered Bond (the “**Permanent Global Covered Bond**”) will be exchangeable, free of charge to the holder, on or after its Exchange Date in whole but not, except as provided under “— Delivery of Covered Bonds” below, in part for Definitive Covered Bonds if the Permanent Global Covered Bond is held on behalf of Euroclear, Clearstream or an Alternative Clearing System and any such clearing system is closed for business for a continuous period of 14 days (other than by reason of holidays, statutory or otherwise) or announces an intention permanently to cease business or in fact does so by such holder giving notice to the Issuing and Paying Agent.

Global Certificates

(a) Unrestricted Global Certificates

If the Pricing Supplement states that the Covered Bonds are to be represented by an Unrestricted Global Certificate on issue, the following will apply in respect of transfers of Covered Bonds held in Euroclear, Clearstream or an Alternative Clearing System. These provisions will not prevent the trading of interests in the Covered Bonds within a clearing system whilst they are held on behalf of such clearing system, but will limit the circumstances in which the Covered Bonds may be withdrawn from the relevant clearing system.

Transfers of the holding of Covered Bonds represented by any Global Certificate pursuant to Condition 2(b) may only be made:

- (i) in whole but not in part, if the relevant clearing system is closed for business for a continuous period of 14 days (other than by reason of holidays, statutory or otherwise) or announces an intention permanently to cease business or does in fact do so; or
- (ii) in whole or in part, with the consent of the Issuer, provided that, in the case of the first transfer of part of a holding pursuant to sub-paragraph (i) or (ii) above, the Registered Holder has given the Registrar not less than 30 days' notice at its specified office of the Registered Holder's intention to effect such transfer.

(b) Restricted Global Certificates

If the Pricing Supplement states that the Restricted Covered Bonds are to be represented by a Restricted Global Certificate on issue, the following will apply in respect of transfers of Covered Bonds held in DTC. These provisions will not prevent the trading of interests in the Covered Bonds within a clearing system whilst they are held on behalf of DTC, but will limit the circumstances in which the Covered Bonds may be withdrawn from DTC. Transfers of the holding of Covered Bonds represented by that Restricted Global Certificate pursuant to Condition 2(b) may only be made:

- (i) in whole but not in part, if such Covered Bonds are held on behalf of a custodian for DTC and if DTC notifies the Issuer that it is no longer willing or able to discharge properly its responsibilities as depositary with respect to that Restricted Global Certificate or DTC ceases to be a "clearing agency" registered under the Exchange Act or is at any time no longer eligible to act as such, and this Issuer is unable to locate a qualified successor within 90 days of receiving notice of such ineligibility on the part of DTC; or
- (ii) in whole or in part, with the Issuer's consent, provided that, in the case of any transfer pursuant to (i) above, the relevant Registered Covered Bondholder has given the relevant Registrar not less than 30 days' notice at its specified office of the Registered Covered Bondholder's intention to effect such transfer. Individual Certificates issued in exchange for a beneficial interest in a Restricted Global Certificate shall bear the legend applicable to such Covered Bonds as set out in "Subscription and Sale and Transfer and Selling Restrictions."

Delivery of Covered Bonds

On or after any due date for exchange, the holder of a Global Covered Bond may surrender such Global Covered Bond or, in the case of a partial exchange, present it for endorsement to or to the order of the Issuing and Paying Agent. In exchange for any Global Covered Bond, or the part thereof to be exchanged, the Issuer will (i) in the case of a Temporary Global Covered Bond exchangeable for a Permanent Global Covered Bond, deliver, or procure the delivery of, a Permanent Global Covered Bond in an aggregate nominal amount equal to that of the whole or that part of a Temporary Global Covered Bond that is being exchanged or, in the case of a subsequent exchange, endorse, or procure the endorsement of, a Permanent Global Covered Bond to reflect such exchange or (ii) in the case of a Global Covered Bond exchangeable for Definitive Covered Bonds, deliver, or procure the delivery of, an equal aggregate nominal amount of duly executed and authenticated Definitive Covered Bonds.

Definitive Covered Bonds will be security printed in accordance with any applicable legal and stock exchange requirements in or substantially in the form set out in the Schedules to the Trust Deed. On exchange in full of each Permanent Global Covered Bond, the Issuer will, if the holder so requests, procure that it is cancelled and returned to the holder together with the relevant Definitive Covered Bonds.

Exchange Date

"Exchange Date" means, in relation to a Temporary Global Covered Bond, the day falling after the expiry of 40 days after its Issue Date and, in relation to a Permanent Global Covered Bond, a day falling not less than 60 days

after that on which the notice requiring exchange is given and on which banks are open for business in the city in which the specified office of the Issuing and Paying Agent is located and in the city in which the relevant clearing system is located.

Amendment to Conditions

The Temporary Global Covered Bonds, Permanent Global Covered Bonds and Global Certificates contain provisions that apply to the Covered Bonds that they represent, some of which modify the effect of the terms and conditions of the Covered Bonds set out in this Offering Circular. The following is a summary of certain of those provisions:

Payments

No payment falling due after the Exchange Date will be made on any Global Covered Bond unless exchange for an interest in a Permanent Global Covered Bond or for Definitive Covered Bonds is improperly withheld or refused. Payments on any Temporary Global Covered Bond issued in compliance with U.S. Treas. Reg. §1.163-5(c)(2)(i)(D) (or any successor rules in substantially the same form that are applicable for purposes of Section 4701 of the Code) before the Exchange Date will only be made against presentation of certification as to non-U.S. beneficial ownership in the form set out in the Agency Agreement. All payments in respect of Covered Bonds represented by a Global Covered Bond will be made against presentation for endorsement and, if no further payment falls to be made in respect of the Covered Bonds, surrender of that Global Covered Bond to or to the order of the Issuing and Paying Agent or such other Paying Agent as shall have been notified to the Covered Bondholders for such purpose. A record of each payment so made will be endorsed on each Global Covered Bond, which endorsement will be *prima facie* evidence that such payment has been made in respect of the Covered Bonds. Conditions 6(f) and 6(g) will apply to the Definitive Covered Bonds only. For the purpose of any payments made in respect of a Global Covered Bond, the relevant place of presentation shall be disregarded in the definition of “business day” set out in Condition 6(h) (*Non-Business Days*).

All payments in respect of Covered Bonds represented by a Global Certificate will be made to, or to the order of, the person whose name is entered on the Register at the close of business on the record date which shall be on the Clearing System Business Day immediately prior to the date for payment, where “Clearing System Business Day” means Monday to Friday inclusive except 25 December and 1 January.

Prescription

Claims against the Issuer in respect of Covered Bonds that are represented by a Permanent Global Covered Bond or by a Global Certificate will become void unless it is presented for payment within a period of 10 years (in the case of principal) and five years (in the case of interest) from the appropriate Relevant Date (as defined in Condition 7).

Meetings

The holder of the Covered Bonds represented by a Permanent Global Covered Bond or by a Global Certificate shall (unless such Permanent Global Covered Bond or Global Certificate represents only one Covered Bond) be treated as being two persons for the purposes of any quorum requirements of a meeting of Covered Bondholders and, at any such meeting, and the holder of a Permanent Global Covered Bond shall be treated as having one vote in respect of each integral currency unit of the Specified Currency of the Covered Bonds.

Cancellation

Cancellation of any Covered Bond represented by a Permanent Global Covered Bond or by a Global Certificate that is required by the Conditions to be cancelled (other than upon its redemption) will be effected by reduction in the nominal amount of the relevant Permanent Global Covered Bond or the relevant Global Certificate, as the case may be, or its presentation to or to the order of the Issuing and Paying Agent for endorsement in the relevant schedule of such Permanent Global Covered Bond or such Global Certificate, whereupon the principal amount thereof shall be reduced for all purposes by the amount so cancelled and endorsed.

Purchase

Covered Bonds represented by a Permanent Global Covered Bond or by a Global Certificate may only be purchased by the Issuer or any of its subsidiaries if they are purchased together with the rights to receive all future payments of interest thereon.

Issuer's Option

Any option of the Issuer provided for in the Conditions of any Covered Bonds while such Covered Bonds are represented by a Permanent Global Covered Bond or by a Global Certificate shall be exercised by the Issuer giving notice to the Covered Bondholders within the time limits set out in and containing the information required by the Conditions, except that the notice shall not be required to contain the serial numbers of Covered Bonds drawn in the case of a partial exercise of an option and accordingly no drawing of Covered Bonds shall be required.

Covered Bondholders' Options

Any option of the Covered Bondholders provided for in the Conditions of any Covered Bonds while such Covered Bonds are represented by a Permanent Global Covered Bond or by a Global Certificate may be exercised by such holder giving notice to the Issuing and Paying Agent within the time limits relating to the deposit of Covered Bonds with a Paying Agent set out in the Conditions substantially in the form of the notice available from any Paying Agent, except that the notice shall not be required to contain the serial numbers of the Covered Bonds in respect of which the option has been exercised, and stating the nominal amount of Covered Bonds in respect of which the option is exercised and at the same time presenting the Permanent Global Covered Bond to the Issuing and Paying Agent, or to a Paying Agent acting on behalf of the Issuing and Paying Agent, for notation.

Trustee's Powers

In considering the interests of Covered Bondholders while any Global Covered Bond is held on behalf of, or Registered Covered Bonds are registered in the name of any nominee for, a clearing system, the Trustee may have regard to any information provided to it by such clearing system or its operator as to the identity (either individually or by category) of its accountholders with entitlements to such Global Covered Bond or Registered Covered Bonds and may consider such interests as if such accountholders were the holders of the Covered Bonds represented by such Global Covered Bond or Global Certificate.

Notices

So long as any Covered Bonds are represented by a Global Covered Bond or a Global Certificate and such Global Covered Bond or Global Certificate is held on behalf of a clearing system, notices to the holders of Covered Bonds of that Series may be given by delivery of the relevant notice to that clearing system for communication by it to entitled accountholders in substitution for publication as required by the Conditions or by delivery of the relevant notice to the holder of the Global Covered Bond.

Electronic Consent and Written Resolution

While any Global Covered Bond is held on behalf of, or any Global Certificate is registered in the name of any nominee for, a clearing system, then:

- (a) where the terms of the resolution proposed by the Issuer or the Trustee (as the case may be) have been notified to the Covered Bondholders through the relevant clearing system(s) as provided in subparagraphs (i) and/or (ii) below, each of the Issuer and the Trustee shall be entitled to rely upon approval of such resolution proposed by the Issuer or the Trustee (as the case may be) given by way of electronic consents communicated through the electronic communications systems of the relevant clearing system(s) to the Issuing and Paying Agent or another specified agent and/or the Trustee in accordance with their operating rules and procedures by or on behalf of the holders of not less than 75% in nominal amount of the Covered Bonds outstanding (or, in the case of a Substitution Resolution, at least the percentage in nominal amount of the Covered Bonds outstanding as is required by the Korean Covered Bond Laws (the “**Required Proportion**”)) (“**Electronic Consent**”) by close of business on the Electronic Consent Due Date. Any resolution passed in such manner shall be binding on all Covered Bondholders and Couponholders, even if the relevant consent or instruction proves to be defective. None of the Issuer or the Trustee shall be liable or responsible to anyone for such reliance:
 - i. When a proposal for a resolution to be passed as an Electronic Consent has been made, at least 10 days' notice (exclusive of the day on which the notice is given and of the day on which affirmative consents will be counted) shall be given to the Covered Bondholders through the relevant clearing system(s). The notice shall specify, in sufficient detail to enable Covered Bondholders to give their

consents in relation to the proposed resolution, the method by which their consents may be given (including, where applicable, blocking of their accounts in the relevant clearing system(s)) and the time and date (the “**Electronic Consent Relevant Date**”) by which they must be received in order for such consents to be validly given, in each case subject to and in accordance with the operating rules and procedures of the relevant clearing system(s).

- ii. If, on the Electronic Consent Relevant Date on which the consents in respect of an Electronic Consent are first counted, such consents do not represent the Required Proportion, the resolution shall, if the party proposing such resolution (the “**Proposer**”) so determines, be deemed to be defeated. Such determination shall be notified in writing to the other party or parties to the Trust Deed. Alternatively, the Proposer may give a further notice to Covered Bondholders that the resolution will be proposed again on such date and for such period as shall be agreed with the Trustee (unless the Trustee is the Proposer). Such notice must inform Covered Bondholders that insufficient consents were received in relation to the original resolution and the information specified in sub-paragraph (i) above. For the purpose of such further notice, references to “Electronic Consent Relevant Date” shall be construed accordingly.

For the avoidance of doubt, an Electronic Consent may only be used in relation to a resolution proposed by the Issuer or the Trustee which is not then the subject of a meeting that has been validly convened in accordance with the Trust Deed, unless that meeting is or shall be cancelled or dissolved; and where Electronic Consent is not being sought, for the purpose of determining whether a Written Resolution (as defined in the Trust Deed) has been validly passed, the Issuer and the Trustee shall be entitled to rely on consent or instructions given in writing directly to the Issuer and/or the Trustee, as the case may be, by accountholders in the clearing system with entitlements to such Global Covered Bond or Global Certificate or, where the accountholders hold any such entitlement on behalf of another person, on written consent from or written instruction by the person for whom such entitlement is ultimately beneficially held, whether such beneficiary holds directly with the accountholder or via one or more intermediaries and provided that, in each case, the Issuer and the Trustee have obtained commercially reasonable evidence to ascertain the validity of such holding and have taken reasonable steps to ensure that such holding does not alter following the giving of such consent or instruction and prior to the effecting or implementation of such consent or instruction. Any resolution passed in such manner shall be binding on all Covered Bondholders and Couponholders, even if the relevant consent or instruction proves to be defective. As used in this paragraph, “commercially reasonable evidence” includes any certificate or other document issued by Euroclear, Clearstream, DTC or any other relevant Alternative Clearing System, or issued by an accountholder of them or an intermediary in a holding chain, in relation to the holding of interests in the Covered Bonds. Any such certificate or other document shall, in the absence of manifest error, be conclusive and binding for all purposes. Any such certificate or other document may comprise any form of statement or print out of electronic records provided by the relevant clearing system (including Euroclear’s EUCLID or Clearstream’s CreationOnline system) in accordance with its usual procedures and in which the accountholder of a particular principal or nominal amount of the Covered Bonds is clearly identified together with the amount of such holding. Neither the Issuer nor the Trustee shall be liable to any person by reason of having accepted as valid or not having rejected any certificate or other document to such effect purporting to be issued by any such person and subsequently found to be forged or not authentic.

General

For so long as any Covered Bonds are listed on the SGX-ST and the rules of the SGX-ST so require, in the event that any Global Covered Bond or Global Certificate is exchanged for Definitive Covered Bonds, the Issuer shall appoint and maintain a paying agent in Singapore, where such Definitive Covered Bonds may be presented or surrendered for payment or redemption. In addition, in the event that a Global Covered Bond or Global Certificate is exchanged for Definitive Covered Bonds, an announcement of such exchange will be made by or on behalf of the Issuer through the SGX-ST, and such announcement will include all material information with respect to the delivery of the Definitive Covered Bonds, including details of the paying agent in Singapore.

Form of Pricing Supplement

Set out below is the form of Pricing Supplement which will be completed for each Tranche of Covered Bonds issued under the Programme.

[MiFID II product governance / Professional investors and ECPs only target market — Solely for the purposes of [the/each] manufacturer's product approval process, the target market assessment in respect of the Covered Bonds has led to the conclusion that: (i) the target market for the Covered Bonds is eligible counterparties and professional clients only, each as defined in Directive 2014/65/EU (as amended, "MiFID II"); and (ii) all channels for distribution of the Covered Bonds to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Covered Bonds (a "distributor") should take into consideration the manufacturer['s/s'] target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the Covered Bonds (by either adopting or refining the manufacturer['s/s'] target market assessment) and determining appropriate distribution channels.]

[UK MiFIR product governance / Professional investors and ECPs only target market — Solely for the purposes of [the/each] manufacturer's product approval process, the target market assessment in respect of the Covered Bonds has led to the conclusion that: (i) the target market for the Covered Bonds is only eligible counterparties, as defined in the FCA Handbook Conduct of Business Sourcebook, and professional clients, as defined in Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 ("UK MiFIR"); and (ii) all channels for distribution of the Covered Bonds to eligible counterparties and professional clients are appropriate. Any person subsequently offering, selling or recommending the Covered Bonds (a "distributor") should take into consideration the manufacturer['s/s'] target market assessment; however, a distributor subject to the FCA Handbook Product Intervention and Product Governance Sourcebook (the "UK MiFIR Product Governance Rules") is responsible for undertaking its own target market assessment in respect of the Covered Bonds (by either adopting or refining the manufacturer['s/s'] target market assessment) and determining appropriate distribution channels.]

[PROHIBITION OF SALES TO EEA RETAIL INVESTORS — The Covered Bonds are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the European Economic Area ("EEA"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client as defined in point (11) of Article 4(1) of Directive 2014/65/EU (as amended, "MiFID II"); (ii) a customer within the meaning of Directive (EU) 2016/97 (as amended, the "Insurance Distribution Directive"), where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or (iii) not a qualified investor as defined in Regulation (EU) 2017/1129 (as amended, the "Prospectus Regulation"). Consequently no key information document required by Regulation (EU) No 1286/2014 (as amended, the "PRIIPs Regulation") for offering or selling the Covered Bonds or otherwise making them available to retail investors in the EEA has been prepared and therefore offering or selling the Covered Bonds or otherwise making them available to any retail investor in the EEA may be unlawful under the PRIIPs Regulation.]¹

[UK PRIIPs REGULATION — PROHIBITION OF SALES TO UK RETAIL INVESTORS — The Covered Bonds are not intended to be offered, sold or otherwise made available to and should not be offered, sold or otherwise made available to any retail investor in the United Kingdom ("UK"). For these purposes, a retail investor means a person who is one (or more) of: (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018 ("EUWA"); (ii) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the Financial Services and Markets Act 2000 ("FSMA") to implement Directive (EU) 2016/97, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA; or [(iii) not a qualified investor as defined in Article 2 of Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the EUWA. Consequently no key information document required by Regulation (EU) No 1286/2014 as it forms part of domestic law by virtue of the EUWA (the "UK PRIIPs Regulation") for offering or selling the Covered Bonds or otherwise making them available to retail investors in the UK has been prepared and therefore offering or selling the Covered Bonds or otherwise making them available to any retail investor in the UK may be unlawful under the UK PRIIPs Regulation.]

¹ Legend to be included on front of the pricing supplement if the Covered Bonds potentially constitute "packaged" products or the issuer wishes to prohibit offers to EEA retail investors for any other reason, in which case the selling restriction should be specified to be "Applicable".

[Notification under Section 309B(1)(c) of the Securities and Futures Act 2001 of Singapore (the “SFA”) —the Issuer has determined, and hereby notifies all relevant persons (as defined in Section 309A(1) of the SFA), that the Covered Bonds are [prescribed capital markets products [OR] capital markets products other than prescribed capital markets products] (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore) and [Excluded Investment Products [OR] Specified Investment Products] (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).]²

² To be inserted if the Covered Bonds will be offered to investors in Singapore.

[Date]

KEB HANA BANK

Issue of [Aggregate Nominal Amount of Tranche] [Title of Covered Bonds] under the

U.S.\$5,000,000,000 Global Covered Bond Programme

Part A — Contractual Terms

Terms used herein shall be deemed to be defined as such for the purposes of the Conditions set forth in this Offering Circular dated [date] [and the supplement[s] to this Offering Circular dated [date] which [together] constitute[s] this Offering Circular. This document constitutes the Pricing Supplement relating to the issue of the Covered Bonds described herein and contains the final terms of the Covered Bonds and must be read in conjunction with this Offering Circular [as so supplemented].

[The following language applies if the Covered Bonds rely on the exemption as set out in Article 2-2-2, Paragraph 2, Item 3 of the Securities Issuance and Disclosure Regulations promulgated by the Financial Services Commission of Korea.]

The Covered Bonds have not been and will not be registered with the Financial Services Commission of Korea under the Financial Investment Services and Capital Markets Act of Korea. Accordingly, the Covered Bonds may not be offered, delivered, or sold, directly or indirectly, in the Republic of Korea (“Korea”) or to, or for the account or benefit of, any resident of Korea (as defined in the Foreign Exchange Transaction Act of Korea and the rules and regulations promulgated thereunder) or to others for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except as otherwise permitted under applicable Korean laws and regulations. In addition, during the first year after the issuance of the Covered Bonds, the Covered Bonds may not be transferred to any resident of Korea other than a “qualified institutional buyer” (a “Korean QIB” as defined under the Securities Issuance and Disclosure Regulations) who is registered with the Korea Financial Investment Association as a Korean QIB, provided that the amount of the Covered Bonds acquired by the Korean QIBs in the primary market is limited to not more than 20% of the aggregate principal amount of the Covered Bonds.

[The following language applies if the Covered Bonds rely on the exemption as set out in Article 2-2-2, Paragraph 2 (other than Item 3) of the Securities Issuance and Disclosure Regulations promulgated by the Financial Services Commission of Korea.]

The Covered Bonds have not been and will not be registered with the Financial Services Commission of Korea under the Financial Investment Services and Capital Markets Act of Korea. Accordingly, the Covered Bonds may not be offered, delivered, or sold, directly or indirectly, in the Republic of Korea (“Korea”) or to, or for the account or benefit of, any resident of Korea (as defined in the Foreign Exchange Transaction Act of Korea and the rules and regulations promulgated thereunder) or to others for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except as otherwise permitted under applicable Korean laws and regulations. In addition, during the first year after the issuance of the Covered Bonds, the Covered Bonds may not be transferred to any resident of Korea except as otherwise permitted under applicable Korean laws and regulations.

[Include whichever of the following apply or specify as “Not Applicable” (N/A). Note that the numbering should remain as set out below, even if “Not Applicable” is indicated for individual paragraphs or sub-paragraphs. Italics denote directions for completing the Pricing Supplement.]

1 (i) Series Number: [●]

(ii) Tranche Number: [●]

(If fungible with an existing Series, series number, tranche number, issue date and the date on which the Covered Bonds become fungible to be specified)

2 Specified Currency or Currencies: [●]

3 Aggregate Nominal Amount:

(i) Series: [●]

- (ii) Tranche: [●]
- 4 (i) Issue Price: [●] per cent. of the Aggregate Nominal Amount [plus accrued interest from *[insert date]* (if applicable)]
- (ii) Net Proceeds (after deducting a combined management and underwriting commission but not estimated expenses): [●]
- (iii) Use of Proceeds: [●]
- 5 (i) Specified Denominations: [●]
- (No Covered Bonds may be issued which have a minimum denomination of less than U.S.\$200,000 (but so that in no event will the minimum denomination be lower than €100,000 or its equivalent at the date of issue of the relevant Covered Bonds) and integral multiples of U.S.\$1,000)*
- (ii) Calculation Amount: [●]
- 6 (i) Issue Date: [●]
- (ii) Interest Commencement Date (if different from the Issue Date): [●]
- (a) Period to Maturity Date: [●]
- (b) Period from Maturity Date up to Extended Maturity Date: [Not Applicable] *[specify period]*
- 7 (i) Maturity Date: *[Fixed rate—specify date/Floating Rate—Interest Payment Date falling in or nearest to [specify month and year]]*
- (ii) Extended Maturity Date: [Applicable/Not Applicable]
- [The Extended Maturity Date is [insert date]]³*
- (If an Extended Maturity Date is specified hereon as applicable and if the Issuer fails to redeem all of the relevant Series of Covered Bonds in full on the Maturity Date or within 10 days thereafter, the maturity of the Covered Bonds and the date on which such Covered Bonds will be due and payable for the purposes of the Conditions will be automatically extended up to but no later than the Extended Maturity Date, subject as otherwise provided hereon. See Conditions 4(j) and 5(b).)*
- 8 Interest Basis:
- (i) Period to (and including) Maturity Date: [[●] per cent. Fixed Rate]
- [[EURIBOR/SOFR Benchmark] +/- [●] per cent. Floating Rate]
- (further particulars specified below)

³ If applicable, the date should be that falling one year after the Maturity Date. If not applicable, insert “Not Applicable.”

- (ii) Period from (but excluding) Maturity Date up to (and including) Extended Maturity Date: [[EURIBOR/SOFR Benchmark] +/- [●] per cent. Floating Rate]
(further particulars specified below)
- 9 Redemption/Payment Basis: Redemption at par
- 10 Change of Interest Basis: *[Specify the date when any fixed to floating rate change occurs or refer to paragraphs 7, 8, 15 and 16 below if details are included there]*
- 11 Put/Call Options: [Put Option]
[Call Option]
(further particulars specified below)
- 12 Method of distribution: [Syndicated/Non-syndicated]
- 13 Prohibition of Sales to EEA Retail Investors: [Applicable/Not Applicable]
[If the Covered Bonds clearly do not constitute “packaged” products, “Not Applicable” should be specified. If the Covered Bonds may constitute “packaged” products and no KID will be prepared, “Applicable” should be specified]
- 14 Prohibition of Sales to UK Retail Investors: [Applicable/Not Applicable]
[If the Covered Bonds clearly do not constitute “packaged” products, “Not Applicable” should be specified. If the Covered Bonds may constitute “packaged” products and no KID will be prepared, “Applicable” should be specified]

Provisions Relating to Interest (if any) Payable

- 15 Fixed Rate Covered Bond Provisions
- To Maturity Date: [Applicable/Not Applicable]
(If the above is not applicable, delete the remaining sub-paragraphs of this paragraph)
- (i) Rate(s) of Interest: [●] per cent. per annum [payable [annually/ semi-annually/ quarterly] in arrear]
- (ii) Interest Payment Date(s): [●] in each year up to and including the Maturity Date/[specify other]

(N.B. This will need to be amended in the case of long or short coupons)
- (iii) Fixed Coupon Amount(s): [●] per Calculation Amount
- (iv) Broken Amount(s): [●] per Calculation Amount, payable on the Interest Payment Date falling [in/on] [●]
- (v) Day Count Fraction (subject to paragraph 23): [Actual/Actual (ICMA) or 30/360 or [specify other]]

(vi) Determination Date(s): [●] in each year

[Insert regular interest payment dates, ignoring issue date or maturity date in the case of a long or short first or last coupon]

N.B. This will need to be amended in the case of regular interest payment dates which are not of equal duration

N.B. Only relevant where Day Count Fraction is Actual/Actual (ICMA)]

(vii) Other terms relating to the method of calculating interest for Fixed Rate Covered Bonds: [None/Give details]

16 Floating Rate Covered Bond Provisions

(i) To Maturity Date: [Applicable/Not Applicable]

(ii) From Maturity Date up to Extended Maturity Date: [Applicable/Not Applicable]

(If (i) and (ii) above are not applicable, delete the remaining sub-paragraphs of this paragraph)

(iii) Interest Period(s)/Specified Interest Payment Dates:

(a) To Maturity Date: [Not Applicable] [●] [in each case subject to adjustment in accordance with the Business Day Convention]

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable] [●] [in each case subject to adjustment in accordance with the Business Day Convention]

(iv) Business Day Convention:

(a) To Maturity Date: [Not Applicable] [Floating Rate Business Day Convention/Following Business Day Convention/Modified Following Business Day Convention/Preceding Business Day Convention/[specify other]]

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable] [Floating Rate Business Day Convention/Following Business Day Convention/Modified Following Business Day Convention/Preceding Business Day Convention/[specify other]]

(v) Additional Business Centre(s):

(a) To Maturity Date: [Not Applicable] [●]

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable] [●]

(vi) Manner in which the Rate of Interest and Interest Amount is to be determined:

(a) To Maturity Date: [Screen Rate Determination/ISDA Determination/[specify other]]

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable] [Screen Rate Determination/ISDA Determination/[specify other]]

(vii) Party responsible for calculating the Rate of Interest and Interest Amount (if not the Calculation Agent):

(a) To Maturity Date: [Not Applicable] [●]

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable] [●]

(viii) Screen Rate Determination:

(a) To Maturity Date: [Not Applicable] [●]

—Reference Rate: [●] month

(Either EURIBOR, SOFR Benchmark or other, — although additional information is required if other —including the fallback provisions in the Conditions)

—Interest Determination Date(s): [●]

(Second day on which T2 is open prior to the start of each Interest Period if EURIBOR)

—Relevant Screen Page: [●]

(In the case of EURIBOR, if not Reuters Page EURIBOR01 (or any successor page), ensure it is a page which shows a composite rate or amend the fallback provisions appropriately)

—SOFR Benchmark: [Not Applicable/Compounded Daily SOFR/SOFR Index] (Only applicable where the Reference Rate is SOFR)

—Compounded Daily SOFR: [Not Applicable/SOFR Lag/SOFR Observation Shift] (Only applicable in the case of Compounded Daily SOFR)

—Lookback Days: [Not Applicable/[●] U.S. Government Securities Business Day(s)] (Only applicable in the case of SOFR Lag)

—SOFR Observation Shift Days: [Not Applicable/[●] U.S. Government Securities Business Day(s)] (Only applicable in the case of SOFR Observation Shift or SOFR Index)

—SOFR Index_{Start}: [Not Applicable/[●] U.S. Government Securities Business Day(s)] (Only applicable in the case of SOFR Index)

—SOFR Index_{End}: [Not Applicable/[●] U.S. Government Securities Business Day(s)] (Only applicable in the case of SOFR Index)

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable]

—Reference Rate: [●]

(Either EURIBOR, SOFR Benchmark or other,—although additional information is required if other—including the fallback provisions in the Conditions)

—Interest Determination Date(s): [●]

(Second day on which T2 is open prior to the start of each Interest Period if EURIBOR)

—Relevant Screen Page: [●]

(In the case of EURIBOR, if not Reuters Page EURIBOR01 (or any successor page), ensure it is a page which shows a composite rate or amend the fallback provisions appropriately)

—SOFR Benchmark: [Not Applicable/Compounded Daily SOFR/SOFR Index]
(Only applicable where the Reference Rate is SOFR)

—Compounded Daily SOFR: [Not Applicable/SOFR Lag/SOFR Observation Shift] (Only applicable in the case of Compounded Daily SOFR)

—Lookback Days: [Not Applicable/[●] U.S. Government Securities Business Day(s)] (Only applicable in the case of SOFR Lag)

—SOFR Observation Shift Days: [Not Applicable/[●] U.S. Government Securities Business Day(s)] (Only applicable in the case of SOFR Observation Shift or SOFR Index)

—SOFR Index_{Start}: [Not Applicable/[●] U.S. Government Securities Business Day(s)] (Only applicable in the case of SOFR Index)

—SOFR Index_{End}: [Not Applicable/[●] U.S. Government Securities Business Day(s)] (Only applicable in the case of SOFR Index)

(ix) ISDA Determination

(a) To Maturity Date: [Not Applicable]

—Floating Rate Option: [●]

—Designated Maturity: [●]

—Reset Date: [●]

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable]

—Floating Rate Option: [●]

—Designated Maturity: [●]

—Reset Date: [●]

(x) Margin(s):

(a) To Maturity Date: [Not Applicable] [+/-][●] per cent. per annum

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable] [+/-][●] per cent. per annum

(xi) Minimum Rate of Interest:

(a) To Maturity Date: [Not Applicable] [●] per cent. per annum

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable] [●] per cent. per annum

(xii) Maximum Rate of Interest:

(a) To Maturity Date: [Not Applicable] [●] per cent. per annum

(b) From Maturity Date up to Extended Maturity Date: [Not Applicable] [●] per cent. per annum

(xiii) Day Count Fraction:

- (a) To Maturity Date: [Not Applicable]
[Actual/365 (Fixed)
Actual/365 (Sterling)
Actual/360
30/360
30E/360
Other]
- (b) From Maturity Date up to Extended Maturity Date: [Not Applicable]
[Actual/365 (Fixed)
Actual/365 (Sterling)
Actual/360
30/360
30E/360
Other]
(See Condition 4(h) for alternatives)

(xiv) Fallback provisions, rounding provisions and any other terms relating to the method of calculating interest on Floating Rate Covered Bonds, if different from those set out in the Conditions:

- (a) To Maturity Date: [Not Applicable] [●]
- (b) From Maturity Date up to Extended Maturity Date: [Not Applicable] [●]
- (xv) Benchmark Replacement [Applicable/Not Applicable]
(SOFR)

Provisions Relating to Redemption

- 17 Call Option [Applicable/Not Applicable]

(If not applicable, delete the remaining sub-paragraphs of this paragraph)

- (i) Optional Redemption Date(s): [●]
- (ii) Optional Redemption Amount(s) and method, if any, of calculation of such amount(s): [●] per Calculation Amount
- (iii) If redeemable in part:
- (a) Minimum Redemption Amount: [●] per Calculation Amount

- (b) Maximum Redemption Amount: [●] per Calculation Amount
- (iv) Notice period (if other than as set out in the Conditions): [●]
- (N.B. If setting notice periods which are different from those provided in the Conditions, the Issuer is advised to consider the practicalities of distribution of information through intermediaries, for example, clearing systems and custodians, as well as any other notice requirements which may apply, for example, as between the Issuer and the Issuing and Paying Agent or the Covered Bondholders)*
- 18 Put Option: [Applicable/Not Applicable]
- (If not applicable, delete the remaining sub-paragraphs of this paragraph)*
- (i) Optional Redemption Date(s): [●]
- (ii) Optional Redemption Amount(s) of each Covered Bond and method, if any, of calculation of such amount(s): [●] per Calculation Amount
- (iii) Notice period (if other than as set out in the Conditions): [●]
- (N.B. If setting notice periods which are different from those provided in the Conditions, the Issuer is advised to consider the practicalities of distribution of information through intermediaries, for example, clearing systems and custodians, as well as any other notice requirements which may apply, for example, as between the Issuer and the Trustee or the Covered Bondholders)*
- 19 Final Redemption Amount of each Covered Bond: [●] per Calculation Amount

Provisions Relating to Social, Green or Sustainability Covered Bonds

- 20 (i) Social, Green or Sustainable Covered Bond: [[Social]/[Green]/[Sustainable] Covered Bond under the Issuer's Sustainable Financing Framework. See "Use of Proceeds" and "Sustainable Financing Framework" of the Offering Circular]/[Not Applicable]
- (ii) Reviewer: [Moody's Investors Service (opinion dated March 2023)]/[Not Applicable]

General Provisions Applicable to the Covered Bonds

21	Form of Covered Bonds:	[Bearer Covered Bonds: Temporary Global Covered Bond exchangeable for a Permanent Global Covered Bond which is exchangeable for Definitive Bearer Covered Bonds in the limited circumstances specified in the Permanent Global Covered Bond] [Permanent Global Covered Bond exchangeable for Definitive Covered Bonds in the limited circumstances specified in the Permanent Global Covered Bond] [Registered Covered Bonds: [Unrestricted Global Certificate registered in the name of a nominee for [DTC/a Common Depositary for Euroclear and Clearstream, Luxembourg] [Restricted Global Certificate registered in the name of a nominee for [DTC/a Common Depositary for Euroclear and Clearstream, Luxembourg]]
22	Additional Financial Centre(s) or other special provisions relating to Payment Dates:	[Not Applicable/<i>give details</i>] <i>(Note that this item relates to the place of payment, and not Interest Period end dates to which item 14(iii) relates)</i>
23	Talons for future Coupons to be attached to Definitive Covered Bonds (and dates on which such Talons mature):	[Yes/No. <i>If yes, give details</i>]
24	U.S. Selling Restrictions:	[Reg. S Compliance Category [1/2]/Rule 144A/ TEFRA D/ TEFRA C/TEFRA not applicable]
25	Additional selling restrictions:	[Not Applicable/ <i>give details</i>]
26	Calculation Agent:	[●]

[LISTING APPLICATION

This Pricing Supplement comprises the final terms required to list the issue of Covered Bonds described herein pursuant to the U.S.\$5,000,000,000 Global Covered Bond Programme of KEB Hana Bank.

The Singapore Exchange Securities Trading Limited (the “SGX-ST”) assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained in this Pricing Supplement. Approval in-principle from, admission to the Official List of, and listing and quotation of the Covered Bonds on, the SGX-ST are not to be taken as an indication of the merits of the Issuer, the Programme or the Covered Bonds.

[Application will be made/Application has been made/Approval in-principle has been received for the Covered Bonds to be recognised under the SGX Sustainable Fixed Income initiative on the SGX-ST. There is no guarantee that such application for recognition under the SGX Sustainable Fixed Income initiative will be approved. Recognition under the SGX Sustainable Fixed Income initiative does not guarantee that the Covered Bonds will satisfy any investor’s expectations or requirements on its sustainability-related performance or

impact. If approved, the SGX-ST may remove the recognition from the Covered Bonds at its discretion. The latest list of fixed income securities that have been granted recognition under the SGX Sustainable Fixed Income initiative is available at the website of the SGX-ST.]⁴⁵

Responsibility

[[●] has been extracted from [●]. The Issuer confirms that such information has been accurately reproduced and that, so far as it is aware and is able to ascertain from information published by [●], no facts have been omitted which would render the reproduced information inaccurate or misleading.]

Signed on behalf of the Issuer:

By: [●]

Duly authorised

Part B — Other Information

1 Listing and Admission to Trading:

- (a) Listing and Admission to trading: [[Application will be made to / Application has been made to / Approval in-principle has been received from] the SGX-ST for the listing and quotation of the Covered Bonds on the SGX-ST.] [Not applicable]
- (b) Estimate of total expenses related to admission to trading: [●]

2 Ratings

- Ratings: [The Covered Bonds to be issued [have been]/[are expected to be] assigned the following rating:
- [S&P: [●]]
- [Fitch]: [●]]
- The Covered Bonds to be issued have not been assigned any rating]

3 Interests of Natural and Legal Persons involved in the Issue

[Save for any fees payable to the [Arranger/Dealers], so far as the Issuer is aware, no person involved in the issue of the Covered Bonds has an interest material to the offer.] [The [Arranger/ Dealers] and their affiliates have engaged, and may in the future engage, in investment banking and/or commercial banking transactions with, and may perform other services for, the Issuer and its affiliates in the ordinary course of business.] *(Need to include a description of any interest, including conflicting ones, that is material to the issue/offer, detailing the persons involved and the nature of the interest.)*

4 Yield to Maturity Date (Fixed Rate Covered Bonds only)

- Indication of yield: [●] [Not applicable]

⁴ For SGX-ST listing: Paragraph to be included if the Covered Bonds are green/social/sustainability bonds and the Issuer intends to apply for recognition under SGX's Sustainable Fixed Income initiative.

⁵ For SGX-ST listing: For drawdowns based on the 6 January 2025 Offering Circular, please note that if the Issuer's audited financials for financial year 2024 have since become available, this should be appended in full to the pricing supplement.

5 Operational Information

(a) ISIN Code: [●]

[The temporary ISIN code is [●]. After the Exchange Date, the ISIN code will be [●]]

(b) Common Code: [●]

[The temporary Common Code is [●]. After the Exchange Date, the Common Code will be [●].]

(c) LEI: 6RPK2YDJN6L35AS0M510

(d) Any clearing system(s) other than Euroclear and Clearstream, Luxembourg and the relevant identification number(s): [Not Applicable/[●] *[address]*] [(Name and Address)]

(e) Delivery: Delivery [against/free of] payment

(f) Names and addresses of additional Paying Agent(s) (if any): [●]

TERMS AND CONDITIONS OF THE COVERED BONDS

The following is the text of the terms and conditions that, subject to completion and amendment and as supplemented or varied in accordance with the provisions of Part A of the relevant Pricing Supplement, shall be applicable to the Covered Bonds in definitive form (if any) issued in exchange for the Global Covered Bond(s) or the Global Certificate(s) representing each Series. Either (i) the full text of these terms and conditions together with the relevant provisions of Part A of the Pricing Supplement or (ii) these terms and conditions as so completed, amended, supplemented or varied (and subject to simplification by the deletion of non-applicable provisions), shall be endorsed on such Bearer Covered Bonds or on the Certificates relating to such Registered Covered Bonds. All capitalised terms that are not defined in these Conditions will have the meanings given to them in Part A of the relevant Pricing Supplement or the Master Definitions Agreement, as the case may be. Those definitions will be endorsed on the definitive Covered Bonds or Certificates, as the case may be. References in these Conditions to “Covered Bonds” are to the Covered Bonds of one Series only, not to all Covered Bonds that may be issued under the Programme, unless otherwise provided.

The Covered Bonds are constituted by a Trust Deed (as amended or supplemented as at the date of issue of the Covered Bonds (the “**Issue Date**”) and from time to time thereafter, the “**Trust Deed**”) dated 24 December 2020 between the Issuer and BNY Mellon Corporate Trustee Services Limited as original trustee, as amended by the trustee appointment deed dated 28 September 2021 among the Issuer, BNY Mellon Corporate Trustee Services Limited as original trustee, Citicorp International Limited (the “**Trustee**”, which expression shall include all persons for the time being the trustee or trustees under the Trust Deed) as successor trustee for the Covered Bondholders (as defined below), unrestricted registrar and restricted registrar and Citibank, N.A., London Branch as issuing and paying agent, paying agent, calculation agent and transfer agent. These terms and conditions (the “**Conditions**”) include summaries of, and are subject to, the detailed provisions of the Trust Deed, which includes the form of the Bearer Covered Bonds, Certificates, Coupons and Talons referred to below. An Agency Agreement (as amended or supplemented as at the Issue Date and from time to time thereafter, the “**Agency Agreement**”) dated 24 December 2020 has been entered into in relation to the Covered Bonds between the Issuer, the Trustee, Citibank, N.A., London Branch as successor issuing and paying agent and the other agents named in it. The issuing and paying agent, the other paying agents, the registrars, the transfer agents and the calculation agent(s) for the time being (if any) are referred to below respectively as the “**Issuing and Paying Agent**”, the “**Paying Agents**” (which expression shall include the Issuing and Paying Agent), the “**Registrars**”, the “**Transfer Agents**” and the “**Calculation Agent(s)**.” Copies of the Trust Deed, the Agency Agreement and each of the other Transaction Documents are available for inspection at all reasonable times during usual business hours (being between 9.00 a.m. (London time) and 3.00 p.m. (London time)) at the principal office of the Trustee (being at the Issue Date at 40/F, Champion Tower, Three Garden Road, Central, Hong Kong) and at the specified offices of the Paying Agents. The Covered Bondholders and the holders of the interest coupons (the “**Coupons**”) relating to interest bearing Covered Bonds in bearer form and, where applicable in the case of such Covered Bonds, talons for further Coupons (the “**Talons**”) (the “**Couponholders**”) are entitled to the benefit of, are bound by, and are deemed to have notice of, all the provisions of the Trust Deed and are deemed to have notice of those provisions of the Agency Agreement, the Master Definitions Agreement and each of the other Transaction Documents which are applicable to them.

Except where the context otherwise requires, capitalised terms used and not otherwise defined in these Conditions (including the preceding paragraphs) shall bear the meanings given to them in the master definitions schedule made between, *inter alios*, the Issuer, the Trustee, the Issuing and Paying Agent and the Registrars (as amended and/or supplemented and/or restated from time to time, the “**Master Definitions Agreement**”).

The Trust Deed contains provisions for determining the U.S. dollar equivalent of the nominal amount of any Covered Bonds denominated in a currency other than U.S. dollars, where any matter has to be determined by reference to either (i) an Extraordinary Resolution of the holders of the Covered Bonds of all outstanding Series as if they were a single Series or (ii) the holders of a specified percentage in nominal amount of the Covered Bonds of all outstanding Series as if they were a single Series.

1. Form, Denomination and Title

The Covered Bonds are issued in bearer form (“**Bearer Covered Bonds**”) or in registered form (“**Registered Covered Bonds**”), in each case in the specified denomination(s) shown in the relevant Pricing Supplement (the “**Specified Denomination**”). References in these Conditions to “**Covered Bonds**” are to Bearer Covered Bonds and Registered Covered Bonds collectively, or to the Bearer Covered Bonds or, as the case may be, the Registered Covered Bonds, as applicable.

This Covered Bond is a Fixed Rate Covered Bond or a Floating Rate Covered Bond or any other kind of Covered Bond, depending upon the Interest and Redemption/Payment Basis shown in the relevant Pricing Supplement.

Bearer Covered Bonds are serially numbered and are issued with Coupons (and, where appropriate, a Talon) attached.

Registered Covered Bonds are represented by registered certificates (“**Certificates**”) and, save as provided in Condition 2(c), each Certificate shall represent the entire holding of Registered Covered Bonds by the same holder.

Title to the Bearer Covered Bonds and the Coupons and Talons shall pass by delivery. Title to the Registered Covered Bonds shall pass by registration in the register that the Issuer shall procure to be kept by the relevant Registrar in accordance with the provisions of the Agency Agreement (the “**Register**”). Except as ordered by a court of competent jurisdiction or as required by law, the holder (as defined below) of any Covered Bond, Coupon or Talon shall be deemed to be and may be treated as its absolute owner for all purposes whether or not it is overdue and regardless of any notice of ownership, trust or an interest in it, any writing on it (or on the Certificate representing it) or its theft or loss (or that of the related Certificate) and no person shall be liable for so treating the holder.

In these Conditions, “**Covered Bondholder**” means the bearer of any Bearer Covered Bond or the person in whose name a Registered Covered Bond is registered (as the case may be), “**holder**” (in relation to a Covered Bond, Coupon or Talon) means the bearer of any Bearer Covered Bond, Coupon or Talon or the person in whose name a Registered Covered Bond is registered (as the case may be) and capitalised terms have the meanings given to them hereon, the absence of any such meaning indicating that such term is not applicable to the Covered Bonds.

2. No Exchange of Covered Bonds and Transfers of Registered Covered Bonds

- (a) **No Exchange of Covered Bonds:** Registered Covered Bonds may not be exchanged for Bearer Covered Bonds. Bearer Covered Bonds of one Specified Denomination may not be exchanged for Bearer Covered Bonds of another Specified Denomination. Bearer Covered Bonds may not be exchanged for Registered Covered Bonds.
- (b) **Transfer of Registered Covered Bonds:** Subject to the Agency Agreement and Condition 2(f), one or more Registered Covered Bonds may be transferred upon the surrender (at the specified office of the relevant Registrar or any Transfer Agent) of the Certificate representing such Registered Covered Bonds to be transferred, together with the form of transfer endorsed on such Certificate, (or another form of transfer substantially in the same form and containing the same representations and certifications (if any), unless otherwise agreed by the Issuer), duly completed and executed and any other evidence as the relevant Registrar or such Transfer Agent may require. In the case of a transfer of part only of a holding of Registered Covered Bonds represented by one Certificate, a new Certificate shall be issued to the transferee in respect of the part transferred and a further new Certificate in respect of the balance of the holding not transferred shall be issued to the transferor. All transfers of Covered Bonds and entries on the Register will be made subject to the detailed regulations concerning transfers of Covered Bonds scheduled to the Agency Agreement. The regulations may be changed by the Issuer, with the prior written approval of the relevant Registrar and the Trustee or, by the relevant Registrar, with the prior written approval of the Trustee. A copy of the current regulations will be made available by the relevant Registrar (at the cost of the Issuer) to any Covered Bondholder following written request and proof of holding and identity satisfactory to such relevant Registrar.
- (c) **Exercise of Options or Partial Redemption in Respect of Registered Covered Bonds:** In the case of an exercise of an Issuer’s or the Covered Bondholders’ option in respect of, or a partial redemption of, a holding of Registered Covered Bonds represented by a single Certificate, a new Certificate shall be issued to the holder to reflect the exercise of such option or in respect of the balance of the holding not redeemed. In the case of a partial exercise of an option resulting in Registered Covered Bonds of the same holding having different terms, separate Certificates shall be issued in respect of those Covered Bonds of that holding that have the same terms. New Certificates shall only be issued against surrender of the existing Certificates to the relevant Registrar or Transfer Agent. In the case of a transfer of Registered Covered Bonds to a person who is already a holder of Registered Covered Bonds, a new Certificate representing the enlarged holding shall only be issued against surrender of the Certificate representing the existing holding.

- (d) **Delivery of New Certificates:** Each new Certificate to be issued pursuant to Condition 2(b) or Condition 2(c) shall be available for delivery within seven business days of receipt of the form of transfer or Exercise Notice (as defined in Condition 5(e)) and surrender of the Certificate for exchange. Delivery of the new Certificate(s) shall be made at the specified office of the relevant Registrar or of the relevant Transfer Agent (as the case may be) to whom delivery or surrender of such form of transfer, Exercise Notice or Certificate shall have been made or, at the option of the holder making such delivery or surrender as aforesaid and as specified in the relevant form of transfer, Exercise Notice or otherwise in writing, be mailed by uninsured post at the risk of the holder entitled to the new Certificate to such address as may be so specified, unless such holder requests otherwise and pays in advance to the relevant Registrar or the relevant Transfer Agent (as the case may be) the costs of such other method of delivery and/or such insurance as it may specify. In this Condition 2(d), “**business day**” means a day, other than a Saturday, Sunday or public holiday, on which banks are open for business in the place of the specified office of the relevant Registrar or the relevant Transfer Agent (as the case may be).
- (e) **Transfers Free of Charge:** Transfers of Covered Bonds and Certificates on registration, transfer, exercise of an option or partial redemption shall be effected without charge by or on behalf of the Issuer, the relevant Registrar or the Transfer Agents, but upon payment by the relevant Covered Bondholder of any tax or other governmental charges that may be imposed in relation to it (or the giving of such indemnity and/or security and/or prefunding as the relevant Registrar or the relevant Transfer Agent may require).
- (f) **Closed Periods:** No Covered Bondholder may require the transfer of a Registered Covered Bond to be registered (i) during the period of 15 days ending on the due date for redemption of that Covered Bond, (ii) during the period of 15 days prior to any date on which Covered Bonds may be called for redemption by the Issuer at its option pursuant to Condition 5(d), (iii) after any such Covered Bond has been called for redemption, or (iv) during the period of seven days ending on (and including) any Record Date.

3. Status

The Covered Bonds and the Coupons constitute unsubordinated obligations of the Issuer issued in accordance with the Act on Issuance of Covered Bonds and relevant executive decrees and regulations related thereto as the same may be supplemented, amended, modified or varied from time to time (the “**Korean Covered Bond Laws**”) and shall at all times rank *pari passu* and without any preference among themselves and with all other obligations of the Issuer that have been provided the same priority as the Covered Bonds under the Cover Pool Priority of Payments. To the extent that claims in relation to the Covered Bonds, the Coupons and the Priority Payment Rights are not met out of the assets of the Issuer that are covered in accordance with the Korean Covered Bond Laws, the residual claims will at all times rank at least equally with all other unsecured and unsubordinated indebtedness and monetary obligations of the Issuer (other than those preferred by law), present and future. By subscribing for a Covered Bond, each Covered Bondholder agrees to be bound by the Cover Pool Priority of Payments.

4. Interest and other Calculations

- (a) **Interest on Fixed Rate Covered Bonds:** Each Fixed Rate Covered Bond bears interest on its outstanding nominal amount from and including the Interest Commencement Date at the rate per annum (expressed as a percentage) equal to the Rate of Interest, such interest being payable in arrear on each Interest Payment Date. The amount of interest payable shall be determined in accordance with Condition 4(e).
- (b) **Interest on Floating Rate Covered Bonds:**
 - (i) **Interest Payment Dates:** Each Floating Rate Covered Bond bears interest on its outstanding nominal amount from and including the Interest Commencement Date at the rate per annum (expressed as a percentage) equal to the Rate of Interest, such interest being payable in arrear on each Interest Payment Date. The amount of interest payable shall be determined in accordance with Condition 4(e). Such Interest Payment Date(s) is/are either shown in the relevant Pricing Supplement as Specified Interest Payment Dates or, if no Specified Interest Payment Date(s) is/are shown in the relevant Pricing Supplement, “**Interest Payment Date**” shall mean each date which falls the number of months or other period shown in the relevant Pricing Supplement as the Interest Period after the preceding Interest Payment Date or, in the case of the first Interest Payment Date, after the Interest Commencement Date.

- (ii) *Business Day Convention*: If any date referred to in these Conditions that is specified to be subject to adjustment in accordance with a Business Day Convention would otherwise fall on a day that is not a Business Day, then, if the Business Day Convention specified is (A) the Floating Rate Business Day Convention, such date shall be postponed to the next day that is a Business Day unless it would thereby fall into the next calendar month, in which event (x) such date shall be brought forward to the immediately preceding Business Day and (y) each subsequent such date shall be the last Business Day of the month in which such date would have fallen had it not been subject to adjustment, (B) the Following Business Day Convention, such date shall be postponed to the next day that is a Business Day, (C) the Modified Following Business Day Convention, such date shall be postponed to the next day that is a Business Day unless it would thereby fall into the next calendar month, in which event such date shall be brought forward to the immediately preceding Business Day or (D) the Preceding Business Day Convention, such date shall be brought forward to the immediately preceding Business Day.

- (iii) *Rate of Interest for Floating Rate Covered Bonds*: The Rate of Interest in respect of Floating Rate Covered Bonds for each Interest Accrual Period shall be determined in the manner specified in the relevant Pricing Supplement and the provisions below relating to either ISDA Determination or Screen Rate Determination shall apply, depending upon which is specified in the relevant Pricing Supplement.

(A) ISDA Determination for Floating Rate Covered Bonds:

Where ISDA Determination is specified in the relevant Pricing Supplement as the manner in which the Rate of Interest is to be determined, the Rate of Interest for each Interest Accrual Period shall be determined by the Calculation Agent as a rate equal to the relevant ISDA Rate. For the purposes of this sub-paragraph (A), “**ISDA Rate**” for an Interest Accrual Period means a rate equal to the Floating Rate that would be determined by the Calculation Agent under a Swap Transaction under the terms of an agreement incorporating the ISDA Definitions and under which:

- (x) the Floating Rate Option is as specified in the relevant Pricing Supplement;
- (y) the Designated Maturity is a period specified in the relevant Pricing Supplement; and
- (z) the relevant Reset Date is the first day of that Interest Accrual Period unless otherwise specified in the relevant Pricing Supplement.

For the purposes of Condition 4(b)(iii)(A) and Condition 4(b)(iii)(C), “**Floating Rate**”, “**Calculation Agent**”, “**Floating Rate Option**”, “**Designated Maturity**”, “**Reset Date**” and “**Swap Transaction**” have the meanings given to those terms in the ISDA Definitions.

(B) Screen Rate Determination for Floating Rate Covered Bonds where the Reference Rate is not specified as being SOFR Benchmark:

- (x) Where Screen Rate Determination is specified in the relevant Pricing Supplement as the manner in which the Rate of Interest is to be determined, the Rate of Interest for each Interest Accrual Period will, subject as provided below, be either:

- (1) the offered quotation; or
- (2) the arithmetic mean of the offered quotations,

(expressed as a percentage rate per annum) for the Reference Rate (as defined below) which appears or appear, as the case may be, on the Relevant Screen Page (or any other such page as may replace that page on the relevant service, or such other service as may be nominated by the provider of the relevant service, for the purpose of displaying comparable rates) (the “**Relevant Screen Page Rate**”) as at 11.00 a.m. (Brussels time in the case of EURIBOR) on the Interest Determination Date (as defined below) in question as determined by the Calculation Agent. If five or more of such offered quotations are available on the Relevant Screen Page, the highest (or, if there is more than one such highest quotation, one only of such quotations) and the lowest (or, if there is more than one such lowest quotation, one only of such quotations) shall be disregarded by the Calculation Agent for the purpose of determining the arithmetic mean of such offered quotations.

If the Reference Rate from time to time in respect of Floating Rate Covered Bonds is specified in the relevant Pricing Supplement as being other than EURIBOR, the Rate of Interest in respect of such Covered Bonds will be determined as provided in the relevant Pricing Supplement.

- (y) If the Relevant Screen Page is not available or if sub-paragraph (x)(1) above applies and no such offered quotation appears on the Relevant Screen Page or if sub-paragraph (x)(2) above applies and fewer than three such offered quotations appear on the Relevant Screen Page, in each case as at the time specified above, then subject as provided below, the Issuer shall request, if the Reference Rate is EURIBOR, the principal Euro-zone office of each of the Reference Banks, to provide the Calculation Agent with its offered quotation (expressed as a percentage rate per annum) for the Reference Rate, if the Reference Rate is EURIBOR, at approximately 11.00 a.m. (Brussels time) on the Interest Determination Date in question. If two or more of the Reference Banks provide the Calculation Agent with such offered quotations, the Rate of Interest for such Interest Accrual Period shall be the arithmetic mean of such offered quotations as determined by the Calculation Agent.
- (z) If sub-paragraph (y) above applies and the Issuer determines that fewer than two Reference Banks are providing offered quotations to the Calculation Agent, subject as provided below, the Rate of Interest shall be the arithmetic mean of the rates per annum (expressed as a percentage) as communicated to the Calculation Agent by the Reference Banks or any two or more of them, at which such banks were offered, if the Reference Rate is EURIBOR, at approximately 11.00 a.m. (Brussels time) on the relevant Interest Determination Date, deposits in the Specified Currency (as defined below) for a period equal to that which would have been used for the Reference Rate by leading banks in, if the Reference Rate is EURIBOR, the Euro-zone inter-bank market, as the case may be, or, if fewer than two of the Reference Banks provide the Calculation Agent with such offered rates, the offered rate for deposits in the Specified Currency for a period equal to that which would have been used for the Reference Rate, or the arithmetic mean of the offered rates for deposits in the Specified Currency for a period equal to that which would have been used for the Reference Rate, at which, if the Reference Rate is EURIBOR, at approximately 11.00 a.m. (Brussels time), on the relevant Interest Determination Date, any one or more banks (which bank or banks is or are in the opinion of the Issuer suitable for such purpose) informs the Calculation Agent it is quoting to leading banks in, if the Reference Rate is EURIBOR, the Euro-zone inter-bank market, as the case may be, provided that, if the Rate of Interest cannot be determined in accordance with the foregoing provisions of this paragraph, the Rate of Interest shall be determined as at the last preceding Interest Determination Date (though substituting, where a different Margin or Maximum Rate of Interest or Minimum Rate of Interest is to be applied to the relevant Interest Accrual Period from that which applied to the last preceding Interest Accrual Period, the Margin or Maximum Rate of Interest or Minimum Rate of Interest relating to the relevant Interest Accrual Period, in place of the Margin or Maximum Rate of Interest or Minimum Rate of Interest relating to that last preceding Interest Accrual Period).

(C) Linear Interpolation:

Where Linear Interpolation is specified in the relevant Pricing Supplement as applicable in respect of an Interest Accrual Period, the Rate of Interest for such Interest Accrual Period shall be calculated by the Calculation Agent by straight line linear interpolation by reference to two rates based on the relevant Reference Rate (where Screen Rate Determination is specified in the relevant Pricing Supplement as applicable) or the relevant Floating Rate Option (where ISDA Determination is specified in the relevant Pricing Supplement as applicable), one of which shall be determined as if the Applicable Maturity were the period of time for which rates are available next shorter than the length of the relevant Interest Accrual Period and the other of which shall be determined as if the Applicable Maturity were the period of time for which rates are available next longer than the length of the relevant Interest Accrual Period provided

however that if there is no rate available for the period of time next shorter or, as the case may be, next longer, then the Calculation Agent shall determine such rate at such time and by reference to such sources as it determines appropriate.

“**Applicable Maturity**” means: (a) in relation to Screen Rate Determination, the period of time designated in the Reference Rate, and (b) in relation to ISDA Determination, the Designated Maturity.

- (D) Screen Rate Determination for Floating Rate Covered Bonds where the Reference Rate is specified as being SOFR Benchmark

Where Screen Rate Determination is specified in the applicable Pricing Supplement as the manner in which the Rate of Interest is to be determined where the Reference Rate is SOFR Benchmark, the Rate of Interest for each Interest Period will, subject as provided below, be equal to the relevant SOFR Benchmark plus or minus the Margin (if any), all as determined by the Calculation Agent on the relevant Interest Determination Date.

The “SOFR Benchmark” will be determined based on Compounded Daily SOFR or SOFR Index, as follows (subject in each case to Condition 4(g) as further specified in the applicable Pricing Supplement):

- (1) If Compounded Daily SOFR (“**Compounded Daily SOFR**”) is specified in the applicable Pricing Supplement as the manner in which the SOFR Benchmark will be determined, the SOFR Benchmark for each Interest Period shall be equal to the compounded average of daily SOFR reference rates for each day during the relevant Interest Period (where SOFR Lag is specified in the applicable Pricing Supplement to determine Compounded Daily SOFR) or the SOFR Observation Period (where SOFR Observation Shift is specified in the applicable Pricing Supplement to determine Compounded Daily SOFR).

Compounded Daily SOFR shall be calculated by the Calculation Agent in accordance with one of the formulas referenced below depending upon which is specified in the applicable Pricing Supplement:

- (A) SOFR Lag:

$$\left(\prod_{i=1}^{d_o} \left(1 + \frac{\text{SOFR}_{i-\text{xUSBD}} \times n_i}{360} \right) - 1 \right) \times \frac{360}{d}$$

with the resulting percentage being rounded, if necessary, to the nearest one hundred-thousandth of a percentage point, with 0.000005 per cent. being rounded upwards (e.g., 9.876541 per cent. (or 0.09876541) being rounded down to 9.87654 per cent. (or 0.0987654) and 9.876545 per cent. (or 0.09876545) being rounded up to 9.87655 per cent. (or 0.0987655)) and where:

SOFR_{i-xUSBD}” for any U.S. Government Securities Business Day “i” in the relevant Interest Period, is equal to the SOFR reference rate for the U.S. Government Securities Business Day falling the number of Lookback Days prior to that U.S. Government Securities Business Day “i”;

“**Lookback Days**” means such number of U.S. Government Securities Business Days as specified in the applicable Pricing Supplement;

“**d**” means the number of calendar days in the relevant Interest Period;

“**d_o**” for any Interest Period, means the number of U.S. Government Securities Business Days in the relevant Interest Period;

“**i**” means a series of whole numbers ascending from one to d_o, representing each relevant U.S. Government Securities Business Day from (and including) the first U.S. Government Securities Business Day in the relevant Interest Period (each a “**U.S. Government Securities Business Day “i”**”); and “**n_i**” for any U.S. Government Securities Business Day “i” means the number of calendar days from (and including) such U.S. Government Securities Business Day “i” up to (but excluding) the following U.S. Government Securities Business Day.

(B) SOFR Observation Shift:

$$\left(\prod_{i=1}^{d_o} \left(1 + \frac{SOFR_i \times n_i}{360} \right) - 1 \right) \times \frac{360}{d}$$

with the resulting percentage being rounded, if necessary, to the nearest one hundred-thousandth of a percentage point, with 0.000005 per cent. being rounded upwards (e.g., 9.876541 per cent. (or 0.09876541) being rounded down to 9.87654 per cent. (or 0.0987654) and 9.876545 per cent. (or 0.09876545) being rounded up to 9.87655 per cent. (or 0.0987655)) and where:

“**SOFR_i**” for any U.S. Government Securities Business Day “i” in the relevant SOFR Observation Period, is equal to the SOFR reference rate for that U.S. Government Securities Business Day “i”;

“**SOFR Observation Period**” means, in respect of an Interest Period, the period from (and including) the date falling the number of SOFR Observation Shift Days prior to the first day of such Interest Period to (but excluding) the date falling the number of SOFR Observation Shift Days prior to the Interest Payment Date for such Interest Period;

“**SOFR Observation Shift Days**” means the number of U.S. Government Securities Business Days as specified in the applicable Pricing Supplement;

“**d**” means the number of calendar days in the relevant SOFR Observation Period;

“**d_o**” for any SOFR Observation Period, means the number of U.S. Government Securities Business Days in the relevant SOFR Observation Period;

“**i**” means a series of whole numbers ascending from one to do, representing each U.S. Government Securities Business Day from (and including) the first U.S. Government Securities Business Day in the relevant SOFR Observation Period (each a “**U.S. Government Securities Business Day “i”**”); and “**n_i**” for any U.S. Government Securities Business Day “i” means the number of calendar days from (and including) such U.S. Government Securities Business Day “i” up to (but excluding) the following U.S. Government Securities Business Day.

The following defined terms shall have the meanings set out below for the purpose of this Condition 4(b)(iii)(D)(1):

“**Bloomberg Screen SOFRRATE Page**” means the Bloomberg screen designated “SOFRRATE” or any successor page or service;

“**Reuters Page USDSOFR=**” means the Reuters page designated “USDSOFR=“ or any successor page or service;

“**SOFR**” means, in respect of a U.S. Government Securities Business Day, the reference rate determined by the Calculation Agent in accordance with the following provision:

- (i) the Secured Overnight Financing Rate published at the SOFR Determination Time as such reference rate is reported on the Bloomberg Screen SOFRRATE Page; the Secured Overnight Financing Rate published at the SOFR Determination Time as such reference rate is reported on the Reuters Page USDSOFR=; or the Secured Overnight Financing Rate published at the SOFR Determination Time on the SOFR Administrator’s Website;
- (ii) if the reference rate specified in (i) above does not appear and a SOFR Benchmark Transition Event and its related SOFR Benchmark Replacement Date have not occurred, the SOFR reference rate shall be the reference rate published on the SOFR Administrator’s Website for the first preceding U.S. Government Securities Business Day for which SOFR was published on the SOFR Administrator’s Website; or

- (iii) if the reference rate specified in (i) above does not appear and a SOFR Benchmark Transition Event and its related SOFR Benchmark Replacement Date have occurred, the provisions set forth in Condition 4(g) shall apply as specified in the applicable Pricing Supplement;

“**SOFR Determination Time**” means approximately 3:00 p.m. (New York City time) on the immediately following U.S. Government Securities Business Day.

- (2) If SOFR Index (“**SOFR Index**”) is specified in the applicable Pricing Supplement, the SOFR Benchmark for each Interest Period shall be equal to the compounded average of daily SOFR reference rates for each day during the relevant SOFR Observation Period as calculated by the Calculation Agent as follows:

$$\left(\frac{SOFR\ Index_{End}}{SOFR\ Index_{Start}} - 1 \right) \times \left(\frac{360}{d_c} \right)$$

with the resulting percentage being rounded, if necessary, to the nearest one hundred-thousandth of a percentage point, with 0.000005 per cent. being rounded upwards (e.g., 9.876541 per cent. (or 0.09876541) being rounded down to 9.87654 per cent. (or 0.0987654) and 9.876545 per cent. (or 0.09876545) being rounded up to 9.87655 per cent. (or 0.0987655)) and where:

“**SOFR Index**” means, in respect of a U.S. Government Securities Business Day, the SOFR Index value as published on the SOFR Administrator’s Website at the SOFR Index Determination Time on such U.S. Government Securities Business Day, provided that:

- (A) if the value specified above does not appear and a SOFR Benchmark Transition Event and its related SOFR Benchmark Replacement Date have not occurred, the “SOFR Index” shall be calculated on any Interest Determination Date with respect to an Interest Period, in accordance with the Compounded Daily SOFR formula described above in Condition 4(b)(iii)(D)(1)(B) “SOFR Observation Shift”, and the term “SOFR Observation Shift Days” shall mean five U.S. Government Securities Business Days; or
- (B) if the value specified above does not appear and a SOFR Benchmark Transition Event and its related SOFR Benchmark Replacement Date have occurred, the provisions set forth in Condition 4(g) shall apply as specified in the applicable Pricing Supplement;

“**SOFR Index_{End}**” means, in respect of an Interest Period, the SOFR Index value on the date that is the number of U.S. Government Securities Business Days specified in the applicable Pricing Supplement prior to the Interest Payment Date for such Interest Period (or in the final Interest Period, the Maturity Date);

“**SOFR Index_{Start}**” means, in respect of an Interest Period, the SOFR Index value on the date that is the number of U.S. Government Securities Business Days specified in the applicable Pricing Supplement prior to the first day of such Interest Period;

“**SOFR Index Determination Time**” means, in respect of a U.S. Government Securities Business Day, approximately 3:00 p.m. (New York City time) on such U.S. Government Securities Business Day;

“**SOFR Observation Period**” means, in respect of an Interest Period, the period from (and including) the date falling the number of SOFR Observation Shift Days prior to the first day of such Interest Period to (but excluding) the date falling the number of SOFR Observation Shift Days prior to the Interest Payment Date for such Interest Period;

“**SOFR Observation Shift Days**” means the number of U.S. Government Securities Business Days as specified in the applicable Pricing Supplement; and “**d_c**” means the number of calendar days in the applicable SOFR Observation Period.

The following defined terms shall have the meanings set out below for purpose of this Condition 4(b)(iii)(D):

“Interest Determination Date” means, with respect to a Rate of Interest and Interest Period, the date specified as such in the applicable Pricing Supplement or, if none is so specified, the second U.S. Government Securities Business Day prior to the last day of each Interest Period;

“SOFR Administrator’s Website” means the website of the Federal Reserve Bank of New York (currently, <https://www.newyorkfed.org/markets/reference-rates/sofr-averages-and-index>), or any successor source;

“SOFR Benchmark Replacement Date” means the Benchmark Replacement Date with respect to the then-current Benchmark;

“SOFR Benchmark Transition Event” means the occurrence of a Benchmark Event with respect to the then-current Benchmark; and

“U.S. Government Securities Business Day” means any day except for a Saturday, a Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities

- (3) If the Covered Bonds become due and payable in accordance with Condition 10, the final Interest Determination Date shall, notwithstanding any Interest Determination Date specified in the applicable Pricing Supplement, be deemed to be the date on which the Covered Bonds became due and payable and the Rate of Interest on the Covered Bonds shall, for so long as the Covered Bonds remain outstanding, be that determined on such date.
- (c) **Accrual of Interest:** Interest shall cease to accrue on each Covered Bond on the due date for redemption unless, upon due presentation, payment is improperly withheld or refused, in which event interest shall continue to accrue (both before and after judgement) at the Rate of Interest in the manner provided in this Condition 4 to the Relevant Date (as defined in Condition 7).
- (d) **Margin, Maximum/Minimum Rates of Interest, Redemption Amounts and Rounding:**
- (i) If any Margin is specified in the relevant Pricing Supplement (either (A) generally, or (B) in relation to one or more Interest Accrual Periods), an adjustment shall be made to all Rates of Interest, in the case of (A), or the Rates of Interest for the specified Interest Accrual Periods, in the case of (B), calculated in accordance with Condition 4(b) above by adding (if a positive number) or subtracting (if a negative number) the absolute value of such Margin, subject always to Condition 4(d)(ii) below.
- (ii) If any Maximum Rate of Interest or Minimum Rate of Interest or Redemption Amount is specified in the relevant Pricing Supplement, then any Rate of Interest or Redemption Amount shall be subject to such maximum or minimum, as the case may be. Regardless of whether or not a Minimum Rate of Interest or Maximum Rate of Interest is specified in the relevant Pricing Supplement, in no event shall the Rate of Interest (including any applicable Margin) be less than zero.
- (iii) For the purposes of any calculations required pursuant to these Conditions (unless otherwise specified), (A) all percentages resulting from such calculations shall be rounded, if necessary, to the nearest one hundred-thousandth of a percentage point (with 0.000005 of a percentage point being rounded up), (B) all figures shall be rounded to seven significant figures (provided that if the eighth significant figure is a five or greater, the seventh significant figure shall be rounded up) and (C) all currency amounts that fall due and payable shall be rounded to the nearest unit of such currency (with half a unit being rounded up), save in the case of yen, which shall be rounded down to the nearest yen. For these purposes, **“unit”** means the lowest amount of such currency that is available as legal tender in the relevant country of such currency.
- (e) **Calculations:** The amount of interest payable per calculation amount specified in the relevant Pricing Supplement (or, if no such amount is specified, the Specified Denomination) (the **“Calculation Amount”**) in respect of any Covered Bond for any Interest Accrual Period shall be

equal to the product of the Rate of Interest, the Calculation Amount specified in the relevant Pricing Supplement, and the Day Count Fraction for such Interest Accrual Period, unless an Interest Amount (or a formula for its calculation) is applicable to such Interest Accrual Period, in which case the amount of interest payable per Calculation Amount in respect of such Covered Bond for such Interest Accrual Period shall equal such Interest Amount (or be calculated in accordance with such formula). Where any Interest Period comprises two or more Interest Accrual Periods, the amount of interest payable per Calculation Amount in respect of such Interest Period shall be the sum of the Interest Amounts payable in respect of each of those Interest Accrual Periods. In respect of any other period for which interest is required to be calculated, the provisions above shall apply save that the Day Count Fraction shall be for the period for which interest is required to be calculated.

- (f) **Determination and Publication of Rates of Interest, Interest Amounts, Final Redemption Amounts and Optional Redemption Amounts:** The Calculation Agent shall, as soon as practicable on each Interest Determination Date, or such other time on such date as the Calculation Agent may be required to calculate any rate or amount or make any determination or calculation, and provided, where applicable, that the Calculation Agent has been provided with any quotations or other information as contemplated in Condition 4(b), determine such rate and calculate the Interest Amounts for the relevant Interest Accrual Period, calculate the Final Redemption Amount or Optional Redemption Amount or make such determination or calculation, as the case may be, and cause the Rate of Interest and the Interest Amounts for each Interest Accrual Period and the relevant Interest Payment Date and, if required to be calculated, the Final Redemption Amount or Optional Redemption Amount to be notified to the Trustee, the Issuer, each of the Paying Agents, the Covered Bondholders, any other Calculation Agent appointed in respect of the Covered Bonds that is to make a further calculation upon receipt of such information as soon as possible after their determination but in no event later than (i) the commencement of the relevant Interest Period, if determined prior to such time, in the case of notification to such exchange of a Rate of Interest and Interest Amount, or (ii) in all other cases, the fourth Business Day after such determination. Where any Interest Payment Date or Interest Period Date is subject to adjustment pursuant to Condition 4(b)(ii), the Interest Amounts and the Interest Payment Date so published may subsequently be amended (or appropriate alternative arrangements made with the prior written consent of the Trustee by way of adjustment) without notice in the event of an extension or shortening of the Interest Period. If the Covered Bonds become due and payable under Condition 10, the accrued interest and the Rate of Interest payable in respect of the Covered Bonds shall nevertheless continue to be calculated as previously in accordance with this Condition 4 but no publication of the Rate of Interest or the Interest Amount so calculated need be made unless the Trustee otherwise requires. The determination of any rate or amount and the making of each determination or calculation by the Calculation Agent(s) shall (in the absence of manifest error) be final and binding upon all parties.
- (g) **Benchmark Replacement (SOFR):** The following provisions shall apply if Benchmark Replacement (SOFR) is specified in the applicable Pricing Supplement:
- (i) **Benchmark Replacement**
- If the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee determines on or prior to the relevant Reference Time that a Benchmark Event and its related Benchmark Replacement Date have occurred with respect to the then current Benchmark, the Benchmark Replacement will replace the then-current Benchmark for all purposes relating to the Covered Bonds in respect of all determinations on such date and for all determinations on all subsequent dates.
- (ii) **SOFR Benchmark Replacement Conforming Changes**
- In connection with the implementation of a Benchmark Replacement, the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee will have the right to make SOFR Benchmark Replacement Conforming Changes from time to time. For the avoidance of doubt, any of the Agents shall, at the direction and expense of the Issuer, effect such consequential amendments to the Agency Agreement and these Conditions as may be required to give effect to this Condition 4(g). Covered Bondholders' consent shall not be required in connection with effecting any such changes, including the execution of any documents or any steps to be taken by the Agents (if required). Further, none of the Calculation Agent, the Paying Agents, the Registrars or the Transfer Agents shall be responsible or liable for any determinations, decisions or elections made by the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee

with respect to any Benchmark Replacement or any other changes and shall be entitled to rely conclusively on any certifications provided to each of them in this regard.

(iii) **Decisions and Determinations**

Any determination, decision or election that may be made by the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee pursuant to this Condition 4(g), including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection i) will be conclusive and binding absent manifest error, (ii) will be made in the sole discretion of the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee, as applicable, and (iii) notwithstanding anything to the contrary in the documentation relating to the Covered Bonds, shall become effective with respect to the applicable Covered Bonds without consent from any other party.

(iv) **Notices, etc.**

Any Benchmark Replacement (including any Benchmark Replacement Adjustment) and the specific terms of any SOFR Benchmark Replacement Conforming Changes determined under this Condition 4(g) will be notified promptly by the Issuer or (following the service of an Issuer EOD Notice) the Asset Monitor to the Trustee, the Agents and, in accordance with Condition 16, the Covered Bondholders. Such notice shall be irrevocable and shall specify the effective date of the SOFR Benchmark Replacement Conforming Changes, if any.

No later than notifying the Covered Bondholders of the same, the Issuer or the Asset Monitor (as the case may be) shall deliver to the Trustee, the Calculation Agent and the Paying Agents a certificate signed by one Authorised Signatory of the Issuer or the duly authorised signatories of the Asset Monitor (as the case may be):

- (1) confirming (1) that a Benchmark Event has occurred and (2) the Benchmark Replacement (including any Benchmark Replacement Adjustment) and the specific terms of any SOFR Benchmark Replacement Conforming Changes, in each case as determined in accordance with the provisions of this Condition 4(g); and
- (2) certifying that the SOFR Benchmark Replacement Conforming Changes are necessary to ensure the proper operation of the Benchmark Replacement.

The Trustee and the Agents shall be entitled to rely conclusively on such certificate (without liability to any person) as sufficient evidence thereof.

(v) **Survival of the Benchmark**

Without prejudice to the obligations of the Issuer or the Asset Monitor (as the case may be) under Condition 4(g)(i), 4(g)(ii), 4(g)(iii) and 4(g)(iv), the Benchmark and the fallback provisions provided for in the Agency Agreement will continue to apply unless and until the Trustee, the Calculation Agent and the Paying Agents have been notified of the Benchmark Replacement (including any Benchmark Replacement Adjustment) and the specific terms of any SOFR Benchmark Replacement Conforming Changes, in accordance with Condition 4(g)(iv).

(vi) **Certain Defined Terms**

As used in this Condition 4(g):

“**Benchmark**” means, initially, the relevant SOFR Benchmark specified in the applicable Pricing Supplement; provided that if the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee determines on or prior to the Reference Time that a Benchmark Event and its related Benchmark Replacement Date have occurred with respect to the relevant SOFR Benchmark (including any daily published component used in the calculation thereof) or the then-current Benchmark, then “**Benchmark**” means the applicable Benchmark Replacement;

“**Benchmark Event**” means the occurrence of one or more of the following events with respect to the then-current Benchmark (including any daily published component used in the calculation thereof):

- (i) a public statement or publication of information by or on behalf of the administrator of the Benchmark (or such component) announcing that such administrator has ceased or

will cease to provide the Benchmark (or such component), permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark (or such component); or

- (ii) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark (or such component), the central bank for the currency of the Benchmark (or such component), an insolvency official with jurisdiction over the administrator for the Benchmark (or such component), a resolution authority with jurisdiction over the administrator for the Benchmark (or such component) or a court or an entity with similar insolvency or resolution authority over the administrator for the Benchmark, which states that the administrator of the Benchmark (or such component) has ceased or will cease to provide the Benchmark (or such component) permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark (or such component); or
- (iii) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark announcing that the Benchmark is no longer representative;

“Benchmark Replacement” means the first alternative set forth in the order below that can be determined by the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee as of the Benchmark Replacement Date:

- (i) the sum of:
 - (1) the alternate reference rate that has been selected or recommended by the Relevant Governmental Body as the replacement for the then-current Benchmark (including any daily published component used in the calculation thereof); and
 - (2) the Benchmark Replacement Adjustment;
- (ii) the sum of:
 - (1) the ISDA Fallback Rate; and
 - (2) the Benchmark Replacement Adjustment; or
- (iii) the sum of:
 - (1) the alternate reference rate that has been selected by the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee as the replacement for the then-current Benchmark (including any daily published component used in the calculation thereof) giving due consideration to any industry-accepted reference rate as a replacement for the then-current Benchmark (including any daily published component used in the calculation thereof) for U.S. dollar-denominated Floating Rate Covered Bonds at such time; and
 - (2) the Benchmark Replacement Adjustment;

“Benchmark Replacement Adjustment” means the first alternative set forth in the order below that can be determined by the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee as of the Benchmark Replacement Date:

- (i) the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected or recommended by the Relevant Governmental Body for the applicable Unadjusted Benchmark Replacement;
- (ii) if the applicable Unadjusted Benchmark Replacement is equivalent to the ISDA Fallback Rate, the ISDA Fallback Adjustment; or
- (iii) the spread adjustment (which may be a positive or negative value or zero) that has been selected by the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee giving due consideration to any industry-accepted spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of the then-current Benchmark (including any daily published component used in the calculation thereof) with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated Floating Rate Covered Bonds at such time;

“Benchmark Replacement Date” means the earliest to occur of the following events with respect to the then-current Benchmark (including any daily published component used in the calculation thereof):

- (i) in the case of sub-paragraph (i) or (ii) of the definition of “Benchmark Event”, the later of:
 - (1) the date of the public statement or publication of information referenced therein; and
 - (2) the date on which the administrator of the Benchmark permanently or indefinitely ceases to provide the Benchmark (or such component); or
- (ii) in the case of sub-paragraph (iii) of the definition of “Benchmark Event”, the date of the public statement or publication of information referenced therein;

“ISDA Definitions” means the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. or any successor thereto, as amended or supplemented from time to time, or any successor definitional booklet for interest rate derivatives published from time to time;

“ISDA Fallback Adjustment” means the spread adjustment, (which may be a positive or negative value or zero) that would apply for derivatives transactions referencing the ISDA Definitions to be determined upon the occurrence of an index cessation event with respect to the Benchmark for the applicable tenor;

“ISDA Fallback Rate” means the rate that would apply for derivatives transactions referencing the ISDA Definitions to be effective upon the occurrence of an index cessation date with respect to the Benchmark (including any daily published component used in the calculation thereof) for the applicable tenor excluding the applicable ISDA Fallback Adjustment;

“Reference Time” with respect to any determination of the Benchmark means (1) if the Benchmark is the SOFR Benchmark, the SOFR Determination Time (where Simple SOFR Average or Compounded Daily SOFR is specified as applicable hereon) or SOFR Index Determination Time (where SOFR Index is specified as applicable hereon), or (2) if the Benchmark is not the SOFR Benchmark, the time determined by the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee after giving effect to the SOFR Benchmark Replacement Conforming Changes;

“Relevant Governmental Body” means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or the Federal Reserve Bank of New York or any successor thereto;

“SOFR Benchmark Replacement Conforming Changes” means, with respect to any Benchmark Replacement, any technical, administrative or operational changes (including changes to the timing and frequency of determining rates and making payments of interest, rounding of amounts or tenors, and other administrative matters) the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee decides may be appropriate to reflect the adoption of such Benchmark Replacement in a manner substantially consistent with market practise (or, if the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee decides that adoption of any portion of such market practise is not administratively feasible or if the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee determines that no market practise for use of the Benchmark Replacement exists, in such other manner as the Issuer or its designee or (following the service of an Issuer EOD Notice) the Asset Monitor or its designee determines is reasonably necessary); and

“Unadjusted Benchmark Replacement” means the Benchmark Replacement excluding the Benchmark Replacement Adjustment.

- (h) **Definitions:** In these Conditions, unless the context otherwise requires, the following defined terms shall have the meanings set out below:

“Business Centre” means each of London, New York, Seoul and Hong Kong, unless the context otherwise requires or unless otherwise specified in the relevant Pricing Supplement;

“Business Day” means:

- (i) in the case of a currency other than euro, a day (other than a Saturday or Sunday) on which commercial banks and foreign exchange markets settle payments in the principal financial centre for such currency; and/or
- (ii) in the case of euro, any day on which T2 is open for the settlement of payments in euro (a **“TARGET Business Day”**); and/or
- (iii) in the case of a currency and/or one or more Business Centres, a day (other than a Saturday or a Sunday) on which commercial banks and foreign exchange markets settle payments in such currency in the Business Centre(s) or, if no currency is indicated, generally in each of the Business Centres;

“Day Count Fraction” means, in respect of the calculation of an amount of interest on any Covered Bond for any period of time (from and including the first day of such period to but excluding the last) (whether or not constituting an Interest Period or an Interest Accrual Period, the **“Interest Calculation Period”**):

- (i) if **“Actual/Actual”** or **“Actual/Actual - ISDA”** is specified in the relevant Pricing Supplement, the actual number of days in the Interest Calculation Period divided by 365 (or, if any portion of that Interest Calculation Period falls in a leap year, the sum of (A) the actual number of days in that portion of the Interest Calculation Period falling in a leap year divided by 366 and (B) the actual number of days in that portion of the Interest Calculation Period falling in a non-leap year divided by 365);
- (ii) if **“Actual/365 (Fixed)”** is specified in the relevant Pricing Supplement, the actual number of days in the Interest Calculation Period divided by 365;
- (iii) if **“Actual/365 (Sterling)”** is specified in the relevant Pricing Supplement, the actual number of days in the Interest Calculation Period divided by 365 or, in the case of an Interest Payment Date falling in a leap year, 366;
- (iv) if **“Actual/360”** is specified in the relevant Pricing Supplement, the actual number of days in the Interest Calculation Period divided by 360;
- (v) if **“30/360”**, **“360/360”** or **“Bond Basis”** is specified in the relevant Pricing Supplement, the number of days in the Interest Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“Y₁” is the year, expressed as a number, in which the first day of the Interest Calculation Period falls;

“Y₂” is the year, expressed as a number, in which the day immediately following the last day included in the Interest Calculation Period falls;

“M₁” is the calendar month, expressed as a number, in which the first day of the Interest Calculation Period falls;

“M₂” is the calendar month, expressed as a number, in which the day immediately following the last day included in the Interest Calculation Period falls;

“D₁” is the first calendar day, expressed as a number, of the Interest Calculation Period, unless such number would be 31, in which case D₁ will be 30; and

“D₂” is the calendar day, expressed as a number, immediately following the last day included in the Interest Calculation Period, unless such number would be 31 and D₁ is greater than 29, in which case D₂ will be 30;

- (vi) if **“30E/360”** or **“Eurobond Basis”** is specified in the relevant Pricing Supplement, the number of days in the Interest Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“**Y₁**” is the year, expressed as a number, in which the first day of the Interest Calculation Period falls;

“**Y₂**” is the year, expressed as a number, in which the day immediately following the last day included in the Interest Calculation Period falls;

“**M₁**” is the calendar month, expressed as a number, in which the first day of the Interest Calculation Period falls;

“**M₂**” is the calendar month, expressed as a number, in which the day immediately following the last day included in the Interest Calculation Period falls;

“**D₁**” is the first calendar day, expressed as a number, of the Interest Calculation Period, unless such number would be 31, in which case D₁ will be 30; and

“**D₂**” is the calendar day, expressed as a number, immediately following the last day included in the Interest Calculation Period, unless such number would be 31, in which case D₂ will be 30;

- (vii) if “**30E/360 (ISDA)**” is specified in the relevant Pricing Supplement, the number of days in the Interest Calculation Period divided by 360, calculated on a formula basis as follows:

$$\text{Day Count Fraction} = \frac{[360 \times (Y_2 - Y_1)] + [30 \times (M_2 - M_1)] + (D_2 - D_1)}{360}$$

where:

“**Y₁**” is the year, expressed as a number, in which the first day of the Interest Calculation Period falls;

“**Y₂**” is the year, expressed as a number, in which the day immediately following the last day included in the Interest Calculation Period falls;

“**M₁**” is the calendar month, expressed as a number, in which the first day of the Interest Calculation Period falls;

“**M₂**” is the calendar month, expressed as a number, in which the day immediately following the last day included in the Interest Calculation Period falls;

“**D₁**” is the first calendar day, expressed as a number, of the Interest Calculation Period, unless (i) that day is the last day of February or (ii) such number would be 31, in which case D₁ will be 30; and

“**D₂**” is the calendar day, expressed as a number, immediately following the last day included in the Interest Calculation Period, unless (i) that day is the last day of February but not the Maturity Date or (ii) such number would be 31, in which case D₂ will be 30;

- (viii) if “**Actual/Actual-ICMA**” is specified in the relevant Pricing Supplement,

- (a) if the Interest Calculation Period is equal to or shorter than the Determination Period during which it falls, the number of days in the Interest Calculation Period divided by the product of (x) the number of days in such Determination Period and (y) the number of Determination Periods normally ending in any year; and
- (b) if the Interest Calculation Period is longer than one Determination Period, the sum of:
- (x) the number of days in such Interest Calculation Period falling in the Determination Period in which it begins divided by the product of (1) the number of days in such Determination Period and (2) the number of Determination Periods normally ending in any year; and
- (y) the number of days in such Interest Calculation Period falling in the next Determination Period divided by the product of (1) the number of days in such Determination Period and (2) the number of Determination Periods normally ending in any year,

where:

“**Determination Period**” means the period from and including a Determination Date in any year to but excluding the next Determination Date; and “**Determination Date**”

means the date(s) specified as such in the relevant Pricing Supplement or, if none is so specified, the Interest Payment Date(s);

“Euro-zone” means the region comprised of member states of the European Union that adopt the single currency in accordance with the Treaty establishing the European Community, as amended;

“Interest Accrual Period” means the period beginning on (and including) the Interest Commencement Date and ending on (but excluding) the first Interest Period Date and each successive period beginning on (and including) an Interest Period Date and ending on (but excluding) the next succeeding Interest Period Date;

“Interest Amount” means:

- (i) in respect of an Interest Accrual Period, the amount of interest payable per Calculation Amount for that Interest Accrual Period and which, in the case of Fixed Rate Covered Bonds, and unless otherwise specified in the relevant Pricing Supplement, shall mean the Fixed Coupon Amount or Broken Amount specified in the relevant Pricing Supplement as being payable on the Interest Payment Date ending the Interest Period of which such Interest Accrual Period forms part; and
- (ii) in respect of any other period, the amount of interest payable per Calculation Amount for that period;

“Interest Commencement Date” means the Issue Date or such other date as may be specified in the relevant Pricing Supplement;

“Interest Determination Date” means, with respect to a Rate of Interest and Interest Accrual Period, the date specified as such in the relevant Pricing Supplement or, if none is so specified, (i) the first day of such Interest Accrual Period if the Specified Currency is Sterling, (ii) the day falling two Business Days in London for the Specified Currency prior to the first day of such Interest Accrual Period if the Specified Currency is neither Sterling nor euro or (iii) the day falling two TARGET Business Days prior to the first day of such Interest Accrual Period if the Specified Currency is euro;

“Interest Period” means the period beginning on and including the Interest Commencement Date and ending on but excluding the first Interest Payment Date and each successive period beginning on and including an Interest Payment Date and ending on but excluding the next succeeding Interest Payment Date unless otherwise specified in the relevant Pricing Supplement;

“Interest Period Date” means each Interest Payment Date unless otherwise specified in the relevant Pricing Supplement;

“ISDA Definitions” means the 2006 ISDA Definitions, as published by the International Swaps and Derivatives Association, Inc. (as the same may be updated, amended or supplemented from time to time), unless otherwise specified in the relevant Pricing Supplement;

“Rate of Interest” means the rate of interest payable from time to time in respect of this Covered Bond and that is either specified or calculated in accordance with the provisions in the relevant Pricing Supplement;

“Reference Banks” means, in the case of a determination of EURIBOR, the principal Euro-zone office of four major banks in the Euro-zone inter-bank market, in each case selected by the Issuer or as specified in the relevant Pricing Supplement;

“Reference Rate” means the relevant EURIBOR or other rate as specified in the relevant Pricing Supplement;

“Relevant Screen Page” means such page, section, caption, column or other part of a particular information service as may be specified in the relevant Pricing Supplement (or any successor or replacement page, section, caption, column or other part of a particular information service);

“Specified Currency” means the currency specified as such in the relevant Pricing Supplement or, if none is specified, the currency in which the Covered Bonds are denominated; and

“T2” means the real time gross settlement system operated by the Eurosystem, or any successor system,

- (i) **Calculation Agent:** The Issuer shall procure that there shall at all times be one or more Calculation Agents if provision is made for them in the relevant Pricing Supplement and for so long as any Covered Bond is outstanding (as defined in the Master Definitions Agreement). Where more than one Calculation Agent is appointed in respect of the Covered Bonds, references in these Conditions to the Calculation Agent shall be construed as each Calculation Agent performing its respective duties under the Conditions. If the Calculation Agent is unable or unwilling to act as such or if the Calculation Agent fails duly to establish the Rate of Interest for an Interest Accrual Period or to calculate any Interest Amount, Final Redemption Amount or Optional Redemption Amount, as the case may be, or to comply with any other requirement, the Issuer shall (with the prior written approval of the Trustee) appoint a leading bank or financial institution engaged in the interbank market (or, if appropriate, money, swap or over-the-counter index options market) that is most closely connected with the calculation or determination to be made by the Calculation Agent (acting through its principal London office or any other office actively involved in such market) to act as such in its place. The Calculation Agent may not resign its duties without a successor having been appointed as aforesaid.
- (j) **Interest Rate and Payments in the event of an extension of maturity of the Covered Bonds:** If an Extended Maturity Date is specified in the relevant Pricing Supplement and the maturity of the Covered Bonds is extended beyond the Maturity Date in accordance with Condition 5(b), the following provisions shall apply:
- (i) each Covered Bond shall bear interest on its outstanding nominal amount from (and including) the Maturity Date to (but excluding) the earlier of the relevant Interest Payment Date after the Maturity Date on which it is redeemed in full and the Extended Maturity Date;
 - (ii) such interest shall be payable in arrear on each such Interest Payment Date falling after the Maturity Date, in respect of the interest periods beginning on (and including) the Maturity Date and ending on (but excluding) the first Interest Payment Date after the Maturity Date and each subsequent interest period beginning on (and including) an Interest Payment Date and ending on (but excluding) the next Interest Payment Date, subject as otherwise provided in the relevant Pricing Supplement. The final Interest Payment Date shall fall no later than the Extended Maturity Date; and
 - (iii) the rate of interest payable in respect of the outstanding nominal amount on each Covered Bond on each such Interest Payment Date falling after the Maturity Date will be a floating rate as specified in the relevant Pricing Supplement and, where applicable, determined by the Calculation Agent as specified in the relevant Pricing Supplement.

This Condition 4(j) shall only apply to the Covered Bonds in respect of which an Extended Maturity Date is specified in the relevant Pricing Supplement and only if the Issuer fails to redeem those Covered Bonds (in full) on the Maturity Date (or within 10 days thereafter) and the maturity of those Covered Bonds is automatically extended up to the Extended Maturity Date in accordance with Condition 5(b).

(k) **Benchmark Discontinuation (General)**

- (i) **Independent Adviser:** If a Benchmark Transition Event occurs in relation to an Original Reference Rate when any Rate of Interest (or any component part thereof) remains to be determined by reference to such Original Reference Rate the Issuer shall use its reasonable endeavours to appoint an Independent Adviser, as soon as reasonably practicable, to determine a Successor Rate, failing which an Alternative Rate (in accordance with Condition 4(k)(ii)) and, in either case, an Adjustment Spread and any Benchmark Amendments (in accordance with 4(k)(iv)). In making such determination, the Independent Adviser appointed pursuant to this Condition 4(k) shall act in good faith and in a commercially reasonable manner as an expert. In the absence of bad faith or fraud, the Independent Adviser shall have no liability whatsoever to the Issuer, the Paying Agents, or the Covered Bondholders for any determination made by it, pursuant to this Condition 4(k).

If (i) the Issuer is unable to appoint an Independent Adviser, or (ii) the Independent Adviser appointed by it fails to determine a Successor Rate or, failing which, an Alternative Rate in accordance with this Condition 4(k)(i) prior to the date which is 10 business days prior to the relevant Interest Determination Date, the Rate of Interest applicable to the next succeeding

Interest Period shall be equal to the Rate of Interest last determined in relation to Floating Rate Covered Bonds in respect of the immediately preceding Interest Period. If there has not been a first Interest Payment Date, the Rate of Interest shall be the initial Rate of Interest / determined using the Original Reference Rate last displayed on the Relevant Screen Page prior to the relevant Interest Determination Date. Where a different Margin or Maximum or Minimum Rate of Interest is to be applied to the relevant Interest Period from that which applied to the last preceding Interest Period, the Margin or Maximum or Minimum Rate of Interest relating to the relevant Interest Period shall be substituted in place of the Margin or Maximum or Minimum Rate of Interest relating to that last preceding Interest Period. For the avoidance of doubt, this paragraph shall apply to the relevant next succeeding Interest Period only and any subsequent Interest Periods are subject to the subsequent operation of, and to adjustment as provided in, the first paragraph of this Condition 4(k)(i).

(ii) **Successor Rate or Alternative Rate:** If the Independent Adviser, determines that:

- (a) there is a Successor Rate, then such Successor Rate and the applicable Adjustment Spread shall subsequently be used in place of the Original Reference Rate to determine the Rate of Interest (or the relevant component part thereof) for all future payments of interest on Floating Rate Covered Bonds (subject to the operation of this Condition 4(k)); or
- (b) there is no Successor Rate but that there is an Alternative Rate, then such Alternative Rate and the applicable Adjustment Spread shall subsequently be used in place of the Original Reference Rate to determine the Rate of Interest (or the relevant component part thereof) for all future payments of interest on Floating Rate Covered Bonds (subject to the operation of this Condition 4(k)).

(iii) **Adjustment Spread:** The Adjustment Spread (or the formula or methodology for determining the Adjustment Spread) shall be applied to the Successor Rate or the Alternative Rate (as the case may be). If the Independent Adviser is unable to determine the quantum of, or a formula or methodology for determining, such Adjustment Spread, then the Successor Rate or Alternative Rate (as applicable) will apply without an Adjustment Spread.

(iv) **Benchmark Amendments:** If any Successor Rate or Alternative Rate and, in either case, the applicable Adjustment Spread is determined in accordance with this Condition 4(k) and the Independent Adviser determines (i) that amendments to these Conditions and/or the Agency Agreement are necessary to ensure the proper operation of such Successor Rate or Alternative Rate and/or (in either case) the applicable Adjustment Spread (such amendments, the “**Benchmark Amendments**”), and (ii) the terms of the Benchmark Amendments, then the Issuer shall, subject to giving notice thereof in accordance with Condition 4(k)(v), without any requirement for the consent or approval of Covered Bondholders, vary these Conditions and/or the Agency Agreement to give effect to such Benchmark Amendments with effect from the date specified in such notice.

Notwithstanding any other provision of this Condition 4(k), the Calculation Agent or any Paying Agent is not obliged to concur with the Issuer or the Independent Adviser in respect of any changes or amendments as contemplated under this Condition 4(k) which, in the sole opinion of the Calculation Agent or the relevant Paying Agent, as the case may be, would impose more onerous obligations upon it or expose it to any additional duties, responsibilities or liabilities or reduce or amend the protective provisions afforded to the Calculation Agent or the relevant Paying Agent (as applicable) in the Agency Agreement and/or these Conditions.

In connection with any such variation in accordance with this Condition 4(k)(iv), the Issuer shall comply with the rules of any stock exchange on which the Floating Rate Covered Bonds are for the time being listed or admitted to trading.

(v) **Notices, etc.:** Any Successor Rate, Alternative Rate, Adjustment Spread and the specific terms of any Benchmark Amendments determined under this Condition 4(k) will be notified at least 10 business days prior to the relevant Interest Determination Date by the Issuer to the Calculation Agent, the Paying Agents and, in accordance with Condition 16, the Covered Bondholders. Such notice shall be irrevocable and shall specify the effective date of the Benchmark Amendments, if any.

No later than notifying the Covered Bondholders of the same, the Issuer shall deliver to the Calculation Agent and the Paying Agents a certificate signed by two directors of the Issuer:

- (a) confirming (i) that a Benchmark Transition Event has occurred, (ii) the Successor Rate or, as the case may be, the Alternative Rate, (iii) the applicable Adjustment Spread and (iv) the specific terms of the Benchmark Amendments (if any), in each case as determined in accordance with the provisions of this Condition 4(k); and
- (b) certifying that the Benchmark Amendments (if any) are necessary to ensure the proper operation of such Successor Rate or Alternative Rate and (in either case) the applicable Adjustment Spread.

No later than notifying the Covered Bondholders of the same, the Issuer shall deliver to the Calculation Agent and the Paying Agents a certificate signed by two directors of the Issuer.

Each of the Calculation Agent and the Paying Agents shall be entitled to rely on such certificate (without liability to any person) as sufficient evidence thereof. The Successor Rate or Alternative Rate and the Adjustment Spread and the Benchmark Amendments (if any) specified in such certificate will (in the absence of manifest error or bad faith in the determination of the Successor Rate or Alternative Rate and the Adjustment Spread and the Benchmark Amendments (if any) and without prejudice to the Calculation Agent's or the Paying Agents' ability to rely on such certificate as aforesaid) be binding on the Issuer, the Calculation Agent, the Paying Agents and the Covered Bondholders.

Notwithstanding any other provision of this Condition 4(k), if following the determination of any Successor Rate, Alternative Rate, Adjustment Spread or Benchmark Amendments (if any), in the Calculation Agent's opinion there is any uncertainty between two or more alternative courses of action in making any determination or calculation under this Condition 4(k), the Calculation Agent shall promptly notify the Issuer thereof and the Issuer shall direct the Calculation Agent in writing as to which alternative course of action to adopt. If the Calculation Agent is not promptly provided with such direction, or is otherwise unable (other than due to its own gross negligence, willful default or fraud) to make such calculation or determination for any reason, it shall notify the Issuer thereof and the Calculation Agent shall be under no obligation to make such calculation or determination and (in the absence of such gross negligence, willful default or fraud) shall not incur any liability for not doing so.

- (vi) **Survival of Original Reference Rate:** Without prejudice to the obligations of the Issuer under Condition 4(k)(i), Condition 4(k)(ii), Condition 4(k)(iii) and Condition 4(k)(iv), the Original Reference Rate and the fallback provisions provided for in Condition 4(b)(iii)(B) will continue to apply unless and until a Benchmark Transition Event has occurred.
- (vii) **Definitions:** As used in this Condition 4(k):

“**Adjustment Spread**” means either (x) a spread (which may be positive, negative or zero) or (y) a formula or methodology for calculating a spread, in each case to be applied to the Successor Rate or the Alternative Rate (as the case may be) and is the spread, formula or methodology which:

- (a) (in the case of a Successor Rate, is formally recommended in relation to the replacement of the Original Reference Rate with the Successor Rate by any Relevant Nominating Body; or (if no such recommendation has been made, or in the case of an Alternative Rate);
- (b) the Independent Adviser determines, is customarily applied to the relevant Successor Rate or the Alternative Rate (as the case may be) in international debt capital markets transactions to produce an industry-accepted replacement rate for the Original Reference Rate; or (if the Independent Adviser determines that no such spread is customarily applied);
- (c) the Independent Adviser determines is recognised or acknowledged as being the industry standard for over-the-counter derivative transactions which reference the Original Reference Rate, where such rate has been replaced by the Successor Rate or the Alternative Rate (as the case may be);

“**Alternative Rate**” means an alternative benchmark or screen rate which the Independent Adviser determines in accordance with Condition 4(k)(ii) is customarily applied in

international debt capital markets transactions for the purposes of determining rates of interest (or the relevant component part thereof) in the same Specified Currency as the Floating Rate Covered Bonds;

“Benchmark Amendments” has the meaning given to it in Condition 4(k)(iv);

“Benchmark Replacement Conforming Changes” means, with respect to the Benchmark Amendments, any technical, administrative or operational changes (including changes to the timing and frequency of determining rates and making payments of interest, rounding of amounts or tenors, and other administrative matters) that the Issuer or its designee decides may be appropriate to reflect the adoption of such Benchmark Amendments in a manner substantially consistent with market practise (or, if the Issuer or its designee decides that adoption of any portion of such market practise is not administratively feasible or if the Issuer or its designee determine that no market practise for use of the Benchmark Amendments exists, in such other manner as the Issuer or its designee determines is reasonably necessary);

“designee” means a designee as selected and separately appointed by the Issuer in writing;

“Benchmark Transition Event” means:

- (a) the Original Reference Rate ceasing to be published for a period of at least 5 Business Days or ceasing to exist; or
- (b) a public statement by the administrator of the Original Reference Rate that it has ceased or that it will cease publishing the Original Reference Rate permanently or indefinitely (in circumstances where no successor administrator has been appointed that will continue publication of the Original Reference Rate); or
- (c) a public statement by the supervisor of the administrator of the Original Reference Rate, that the Original Reference Rate has been or will be permanently or indefinitely discontinued; or
- (d) a public statement by the supervisor of the administrator of the Original Reference Rate as a consequence of which the Original Reference Rate will be prohibited from being used either generally, or in respect of the Floating Rate Covered Bonds; or
- (e) the making of a public statement by the supervisor of the administrator of the Original Reference Rate that the Original Reference Rate is or will be (or is or will be deemed by such supervisor to be) no longer representative of its relevant underlying market; or
- (f) it has become unlawful for any Paying Agent, the Calculation Agent, the Issuer or other party to calculate any payments due to be made to any Covered Bondholders using the Original Reference Rate,

provided that the Benchmark Transition Event shall be deemed to occur (i) in the case of sub-paragraphs (b) and (c) above, on the date of the cessation of publication of the Original Reference Rate or the discontinuation of the Original Reference Rate, as the case may be, (ii) in the case of sub-paragraph (d) above, on the date of the prohibition of use of the Original Reference Rate and (iii) in the case of sub-paragraph (e) above, on the date with effect from which the Original Reference Rate will no longer be (or will be deemed by the relevant supervisor to no longer be) representative of its relevant underlying market and which is specified in the relevant public statement, and, in each case, not the date of the relevant public statement.

The occurrence of a Benchmark Transition Event shall be determined by the Issuer and promptly notified to the Calculation Agent and the Paying Agents. For the avoidance of doubt, neither the Calculation Agent nor the Paying Agents shall have any responsibility for making such determination;

“Independent Adviser” means an independent financial institution of international repute or an independent financial adviser with appropriate expertise appointed by the Issuer under Condition 4(k)(i);

“Original Reference Rate” means the originally-specified benchmark or screen rate (as applicable) used to determine the Rate of Interest (or any component part thereof) on the Floating Rate Covered Bonds;

“Relevant Nominating Body” means, in respect of a benchmark or screen rate (as applicable):

- (a) the central bank for the currency to which the benchmark or screen rate (as applicable) relates, or any central bank or other supervisory authority which is responsible for supervising the administrator of the benchmark or screen rate (as applicable); or
- (b) any working group or committee sponsored by, chaired or co-chaired by or constituted at the request of (i) the central bank for the currency to which the benchmark or screen rate (as applicable) relates, (ii) any central bank or other supervisory authority which is responsible for supervising the administrator of the benchmark or screen rate (as applicable), (iii) a group of the aforementioned central banks or other supervisory authorities or (iv) the Financial Stability Board or any part thereof; and

“Successor Rate” means a successor to or replacement of the Original Reference Rate which is formally recommended by any Relevant Nominating Body. In connection with the implementation of the Benchmark Amendments, the Issuer or its designee will have the right to make Benchmark Replacement Conforming Changes (as defined herein) from time to time.

5. Redemption, Purchase and Options

(a) Final Redemption:

Unless previously redeemed, purchased and cancelled as provided below, each Covered Bond shall be redeemed on the Maturity Date specified in the relevant Pricing Supplement at its Final Redemption Amount (which is its nominal amount), subject to Condition 5(b) if an Extended Maturity Date is specified in the relevant Pricing Supplement.

(b) Extension of maturity up to Extended Maturity Date:

- (i) An Extended Maturity Date may be specified in the relevant Pricing Supplement as applying to the relevant Series of Covered Bonds, and this Condition 5(b) shall only apply to the relevant Series of Covered Bonds if an Extended Maturity Date is specified in the relevant Pricing Supplement.
- (ii) If an Extended Maturity Date is specified in the relevant Pricing Supplement as applicable and the Issuer fails to redeem all of the relevant Series of Covered Bonds in full on the Maturity Date or within 10 days thereafter, the maturity of the Covered Bonds and the date on which such Covered Bonds will be due and payable for the purposes of these Conditions will be automatically extended up to but no later than the Extended Maturity Date, subject as otherwise provided for in the relevant Pricing Supplement. The Issuer (or, if the Trustee has given an Issuer EOD Notice pursuant to Condition 10(a), the Asset Monitor on behalf of the Issuer) shall give notice to the holders of Covered Bonds (in accordance with Condition 16) and to the Trustee, the Paying Agents and the Rating Agencies in writing at least five Business Days prior to the Maturity Date confirming whether or not it intends to redeem all or any of the principal amount outstanding of the Covered Bonds on the Maturity Date or within 10 days thereafter. Any failure by the Issuer to notify such persons shall not affect the validity or effectiveness of any redemption by the Issuer on the Maturity Date or within 10 days thereafter or, as the case may be, of any extension of the maturity of the Covered Bonds, or give rise to rights to any such persons.
- (iii) Following an extension of the date on which the Series of Covered Bonds will be due and payable to the Extended Maturity Date, the Issuer may redeem all or any part of the principal amount outstanding of the Covered Bonds on any Interest Payment Date falling after the Maturity Date up to and including the Extended Maturity Date or as otherwise provided in the relevant Pricing Supplement. The Issuer (or, if the Trustee has given an Issuer EOD Notice pursuant to Condition 10(a), the Asset Monitor on behalf of the Issuer) shall give notice to the holders of Covered Bonds (in accordance with Condition 16) and to the Trustee and the Paying Agents in writing of its intention to redeem all or any of the principal amount outstanding of the Covered Bonds at least five Business Days prior to the relevant Interest Payment Date or, as applicable, the Extended Maturity Date (such amount to be redeemed to be determined, following the giving of an Issuer EOD Notice, in accordance with the applicable priority of payments as set out in the Establishment Deed). Any failure by the

Issuer to notify such persons shall not affect the validity or effectiveness of any redemption by the Issuer on a relevant Interest Payment Date or, as applicable, the Extended Maturity Date or give rise to rights to any such persons.

- (iv) Any extension of the maturity of the Covered Bonds under this Condition 5(b) shall be irrevocable.
 - (v) In the event of the extension of the maturity of the Covered Bonds under this Condition 5(b), interest rates, interest periods and interest payment dates on the Covered Bonds from (and including) the Maturity Date to (but excluding) the Extended Maturity Date shall be determined and made in accordance with the terms specified in the relevant Pricing Supplement and Condition 4(j).
 - (vi) If the Issuer redeems part and not all of the principal amount outstanding of the Covered Bonds on any Interest Payment Date falling after the Maturity Date, the redemption proceeds shall be applied rateably across the Covered Bonds and the principal amount outstanding of the Covered Bonds shall be reduced by the level of that redemption.
- (c) **Redemption for Taxation Reasons:** The Covered Bonds may be redeemed at the option of the Issuer in whole, but not in part, on any Interest Payment Date (if this Covered Bond is a Floating Rate Covered Bond) or at any time (if this Covered Bond is not a Floating Rate Covered Bond), on giving not less than 30 nor more than 60 days' notice to the Covered Bondholders in accordance with Condition 16 (which notice shall be irrevocable) and to the Trustee and the Paying Agents in writing, at their Final Redemption Amount (as described in Condition 5(a) above) (together with interest accrued to but excluding the date fixed for redemption), if the Issuer satisfies the Trustee immediately prior to the giving of such notice that (i) it has or will become obliged to pay additional amounts as described under Condition 7 as a result of any change in, or amendment to, the laws or regulations of Korea or any political subdivision or, in each case, any authority thereof or therein having power to tax, or any change in the application or official interpretation of such laws or regulations, which change or amendment becomes effective on or after the date on which agreement is reached to issue the first Tranche of the Covered Bonds, and (ii) such obligation cannot be avoided by the Issuer taking reasonable measures available to it, provided that no such notice of redemption shall be given earlier than 90 days prior to the earliest date on which the Issuer would be obliged to pay such additional amounts were a payment in respect of the Covered Bonds then due.

Prior to the publication of any notice of redemption pursuant to this Condition 5(c), the Issuer shall deliver or procure that there is delivered to the Issuing and Paying Agent and the Trustee:

- (x) a certificate in English signed by an Authorised Signatory of the Issuer stating that the Issuer is entitled to effect such redemption and setting forth a statement of facts showing that the conditions precedent to the right of the Issuer so to redeem have occurred; and
- (y) an opinion of independent tax or legal advisers of recognised standing to the effect that the Issuer has or is likely to become obliged to pay such additional amounts as a result of such change or amendment.

The Trustee shall be entitled to accept any such certificate and opinion as sufficient evidence of the satisfaction of the conditions precedent set out in (i) and (ii) of this Condition 5(c) above without further enquiry and without liability to any Covered Bondholder, Couponholder or any other person, in which event the same shall be conclusive and binding on the Covered Bondholders and Couponholders.

- (d) **Redemption at the Option of the Issuer:** If Call Option is specified in the relevant Pricing Supplement, the Issuer may, on giving not less than 15 nor more than 30 days' irrevocable notice to the Covered Bondholders in accordance with Condition 16 (or such other notice period as may be specified in the relevant Pricing Supplement) and to the Trustee and the Paying Agents in writing, redeem all or, if so provided in the relevant Pricing Supplement, some of the Covered Bonds on any Optional Redemption Date. Any such redemption of Covered Bonds shall be at their Optional Redemption Amount specified in the relevant Pricing Supplement, together with interest accrued to but excluding the date fixed for redemption. Any such redemption or exercise must relate to Covered Bonds of a nominal amount at least equal to the Minimum Redemption Amount to be redeemed specified in the relevant Pricing Supplement and no greater than the Maximum Redemption Amount to be redeemed specified in the relevant Pricing Supplement.

All Covered Bonds in respect of which any such notice is given shall be redeemed on the date specified in such notice in accordance with this Condition 5(d).

In the case of a partial redemption, the notice to Covered Bondholders shall also contain the certificate numbers of the Bearer Covered Bonds or, in the case of Registered Covered Bonds, the relevant Covered Bonds shall be surrendered to the Registrar or the relevant Transfer Agent for payment and payment shall be made in accordance with the directions of the holder(s) of such Registered Covered Bonds given on the relevant redemption notice.

- (e) **Redemption at the Option of Covered Bondholders:** If Put Option is specified in the relevant Pricing Supplement, the Issuer shall, at the option of the holder of any such Covered Bond, upon the holder of such Covered Bond giving not less than 15 nor more than 30 days' notice to the Issuer (or such other notice period as may be specified in the relevant Pricing Supplement) redeem such Covered Bond on the Optional Redemption Date(s) at its Optional Redemption Amount specified in the relevant Pricing Supplement, together with interest accrued to but excluding the date fixed for redemption.

To exercise such option the holder must deposit (in the case of Bearer Covered Bonds) such Covered Bond (together with all unmatured Coupons and unexchanged Talons) with any Paying Agent or (in the case of Registered Covered Bonds) the Certificate representing such Covered Bond(s) with the relevant Registrar or any other Transfer Agent at its specified office, together with a duly completed option exercise notice (an "**Exercise Notice**") in the form obtainable from any Paying Agent, the relevant Registrar or any Transfer Agent (as applicable) within the notice period. No Covered Bond or Certificate so deposited and option exercised may be withdrawn (except as provided in the Agency Agreement) without the prior consent of the Issuer.

- (f) **Purchases:** The Issuer and its subsidiaries may at any time purchase Covered Bonds (provided that all unmatured Coupons and unexchanged Talons relating thereto are attached thereto or surrendered therewith) in the open market or otherwise at any price. For the purposes of this Condition 5(f), a "**subsidiary**" of a company or corporation (the "**parent**") shall be construed as a reference to any company or corporation (i) in which the parent holds a majority of the voting rights or (ii) of which the parent is a member and has the right to appoint or remove a majority of the board of directors or (iii) of which the parent is a member and controls a majority of the voting rights, and includes any company which is a subsidiary of a subsidiary of the parent.
- (g) **Cancellation:** All Covered Bonds purchased by or on behalf of the Issuer or any of its subsidiaries may be surrendered for cancellation, in the case of Bearer Covered Bonds, by surrendering each such Covered Bond together with all unmatured Coupons and all unexchanged Talons to the Issuing and Paying Agent and, in the case of Registered Covered Bonds, by surrendering the Certificate representing such Covered Bonds to the relevant Registrar and, in each case, if so surrendered, shall, together with all Covered Bonds redeemed by the Issuer, be cancelled forthwith (together with all unmatured Coupons and unexchanged Talons attached thereto or surrendered therewith). Any Covered Bonds so surrendered for cancellation may not be reissued or resold and the obligations of the Issuer in respect of any such Covered Bonds shall be discharged.

6. Payments and Talons

- (a) **Bearer Covered Bonds:** Payments of principal and interest in respect of Bearer Covered Bonds shall, subject as mentioned below, be made against presentation and surrender of the relevant Covered Bonds (in the case of interest, as specified in Condition 6(f)(v)) or Coupons (in the case of interest, save as specified in Condition 6(f)(ii)), as the case may be, at the specified office of any Paying Agent outside the United States by transfer to an account denominated in such currency with a Bank. In this Condition 6, "**Bank**" means a bank in the principal financial centre for such currency or, in the case of euro, in a city in which banks have access to T2.
- (b) **Registered Covered Bonds:**
- (i) Payments of principal in respect of Registered Covered Bonds shall be made against presentation and surrender of the relevant Certificates at the specified office of any of the relevant Registrar or any of the other Transfer Agents and in the manner provided in Condition 6(b)(ii) below.
 - (ii) Interest on Registered Covered Bonds shall be paid to the person shown on the Register at the close of business on the fifteenth day before the due date for payment thereof (the "**Record Date**"). Payments of interest on each Registered Covered Bond shall be made in the relevant currency by transfer to an account in the relevant currency maintained by the payee with a Bank.

- (c) **Payments in the United States:** Notwithstanding the foregoing, if any Bearer Covered Bonds are denominated in U.S. dollars, payments in respect thereof may be made at the specified office of any Paying Agent in New York City in the same manner as aforesaid if (i) the Issuer shall have appointed Paying Agents with specified offices outside the United States with the reasonable expectation that such Paying Agents would be able to make payment of the amounts on the Covered Bonds in the manner provided above when due, (ii) payment in full of such amounts at all such offices is illegal or effectively precluded by exchange controls or other similar restrictions on payment or receipt of such amounts and (iii) such payment is then permitted by United States law, without involving, in the opinion of the Issuer, any adverse tax consequence to the Issuer.
- (d) **Payments subject to Laws:** Save as provided in Condition 7, all payments are subject in all cases to any applicable fiscal or other laws, regulations and directives in the place of payment or other laws and regulations to which the Issuer or its Agents agree to be subject and the Issuer will not be liable for any taxes or duties of whatever nature imposed or levied by such laws, regulations, directives or agreements. No commission or expenses shall be charged to the Covered Bondholders or Couponholders in respect of such payments.
- (e) **Appointment of Agents:** The Issuing and Paying Agent, the other Paying Agents, the Registrars, the Transfer Agents and the Calculation Agent initially appointed by the Issuer and their respective specified offices are listed below. The Issuing and Paying Agent, the other Paying Agents, the Registrars, the other Transfer Agents and the Calculation Agents act solely as agents of the Issuer and do not assume any obligation or relationship of agency or trust for or with any Covered Bondholder or Couponholder. The Issuer reserves the right at any time with the prior written approval of the Trustee to vary or terminate the appointment of the Issuing and Paying Agent, any other Paying Agent, any of the Registrars, any Transfer Agent or any of the Calculation Agent(s) and to appoint additional or other Paying Agents or Transfer Agents, provided that the Issuer shall at all times maintain (i) an Issuing and Paying Agent, (ii) a relevant Registrar in relation to Registered Covered Bonds, (iii) a Transfer Agent in relation to Registered Covered Bonds, (iv) one or more Calculation Agent(s) where the Conditions so require and (v) such other agents as may be required by any other stock exchange on which the Covered Bonds may be listed in each case, as approved by the Trustee.

In addition, the Issuer shall forthwith appoint a Paying Agent in New York City in respect of any Bearer Covered Bonds denominated in U.S. dollars in the circumstances described in Condition 6(c) above.

Notice of any such change or any change of any specified office shall promptly be given by the Issuer to the Covered Bondholders.

- (f) **Unmatured Coupons and Unexchanged Talons:**
- (i) Upon the due date for redemption of Bearer Covered Bonds which comprise Fixed Rate Covered Bonds, such Covered Bonds should be surrendered for payment together with all unmaturing Coupons (if any) relating thereto, failing which an amount equal to the face value of each missing unmaturing Coupon (or, in the case of payment not being made in full, that proportion of the amount of such missing unmaturing Coupon that the sum of principal so paid bears to the total principal due) shall be deducted from the Final Redemption Amount or Optional Redemption Amount, as the case may be, due for payment. Any amount so deducted shall be paid in the manner mentioned above against surrender of such missing Coupon within a period of 10 years from the Relevant Date for the payment of such principal (whether or not such Coupon has become void pursuant to Condition 8).
- (ii) Upon the due date for redemption of any Bearer Covered Bond comprising a Floating Rate Covered Bond, unmaturing Coupons relating to such Covered Bond (whether or not attached) shall become void and no payment shall be made in respect of them.
- (iii) Upon the due date for redemption of any Bearer Covered Bond, any unexchanged Talon relating to such Covered Bond (whether or not attached) shall become void and no Coupon shall be delivered in respect of such Talon.
- (iv) Where any Bearer Covered Bond that provides that the relative unmaturing Coupons are to become void upon the due date for redemption of those Covered Bonds is presented for redemption without all unmaturing Coupons, and where any Bearer Covered Bond is presented for redemption without any unexchanged Talon relating to it, redemption shall be made only against the provision of such indemnity and/or security as the Issuer or the relevant Agent may require.

- (v) If the due date for redemption of any Covered Bond is not a due date for payment of interest, interest accrued from the preceding due date for payment of interest or the Interest Commencement Date, as the case may be, shall only be payable against presentation (and surrender if appropriate) of the relevant Bearer Covered Bond or Certificate representing it, as the case may be. Interest accrued on a Covered Bond that only bears interest after its Maturity Date shall be payable on redemption of such Covered Bond against presentation of the relevant Covered Bond or Certificate representing it, as the case may be.
- (g) **Talons:** On or after the Interest Payment Date for the final Coupon forming part of a Coupon sheet issued in respect of any Bearer Covered Bond, the Talon forming part of such Coupon sheet may be surrendered at the specified office of the Issuing and Paying Agent in exchange for a further Coupon sheet (and if necessary another Talon for a further Coupon sheet) (but excluding any Coupons that may have become void pursuant to Condition 8).
- (h) **Non-Business Days:** If any date for payment in respect of any Covered Bond or Coupon is not a business day, the holder shall not be entitled to payment until the next following business day nor to any interest or other sum in respect of such postponed payment. In this Condition 6, “**business day**” means a day (other than a Saturday, a Sunday or a public holiday) on which banks and foreign exchange markets are open for business in the relevant place of presentation, in such jurisdictions as shall be specified as “**Financial Centres**” in the relevant Pricing Supplement and:
 - (i) (in the case of a payment in a currency other than euro) where payment is to be made by transfer to an account maintained with a bank in the relevant currency, on which foreign exchange transactions may be carried on in the relevant currency in the principal financial centre of the country of such currency; or
 - (ii) (in the case of a payment in euro) which is a TARGET Business Day.

7. Taxation

All payments of principal and interest by or on behalf of the Issuer in respect of the Covered Bonds and the Coupons shall be made free and clear of, and without withholding or deduction for or on account of, any taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by Korea or any authority therein or thereof having power to tax, unless such withholding or deduction is required by law. In that event, the Issuer shall pay such additional amounts as shall result in receipt by the Covered Bondholders and Couponholders of such amounts as would have been received by them had no such withholding or deduction been required, except that no such additional amounts shall be payable with respect to any Covered Bond or Coupon:

- (a) **Presentation:** to, or to a third party on behalf of, a holder who presented such Covered Bond or Coupon for payment (where presentation is necessary) in Korea (solely to the extent that such taxes, duties, assessments or governmental charges would not have been imposed if such Covered Bond or Coupon, as the case may be, was presented at an office of a Paying Agent outside Korea); or
- (b) **Other connection:** to, or to a third party on behalf of, a holder who is liable to such taxes, duties, assessments or governmental charges in respect of such Covered Bond or Coupon by reason of his having some connection with Korea other than the mere holding of the Covered Bond or Coupon; or
- (c) **Lawful avoidance of withholding:** to, or to a third party on behalf of, a holder who could lawfully avoid (but has not so avoided) such deduction or withholding by complying or procuring that any third party complies with any statutory requirements or by making or procuring that any third party makes a declaration of non-residence or other similar claim for exemption to any tax authority in the place where the relevant Covered Bond (or the Certificate representing it) or Coupon is presented for payment; or
- (d) **Presentation more than 30 days after the Relevant Date:** presented (or in respect of which the Certificate representing it is presented) for payment more than 30 days after the Relevant Date except to the extent that the holder of it would have been entitled to such additional amounts on presenting it for payment on the thirtieth day.

Notwithstanding any other provision of these Conditions, any amounts to be paid on the Covered Bonds by or on behalf of the Issuer will be paid net of any deduction or withholding imposed or required pursuant to an agreement described in Section 1471(b) of the Code, or otherwise imposed pursuant to Sections 1471 through 1474 of the Code (or any regulations thereunder or official interpretations thereof) or an intergovernmental

agreement between the United States and another jurisdiction facilitating the implementation thereof (or any fiscal or regulatory legislation, rules or practises implementing such an intergovernmental agreement) (any such withholding or deduction, a “**FATCA Withholding**”). Neither the Issuer nor any other person (including without limitation the Trustee or any Agent) will be required to pay any additional amounts in respect of FATCA Withholding.

As used in these Conditions, “**Relevant Date**” in respect of any Covered Bond or Coupon means the date on which payment in respect of it first becomes due or (if any amount of the money payable is improperly withheld or refused) the date on which payment in full of the amount outstanding is made or (if earlier) the date seven days after that on which notice is duly given to the Covered Bondholders that, upon further presentation of the Covered Bond (or relative Certificate) or Coupon being made in accordance with the Conditions, such payment will be made, provided that payment is in fact made upon such presentation.

References in these Conditions to (i) “**principal**” shall be deemed to include any premium payable in respect of the Covered Bonds, Final Redemption Amounts, Optional Redemption Amounts and all other amounts in the nature of principal payable pursuant to Condition 5 or any amendment or supplement to it, (ii) “**interest**” shall be deemed to include all Interest Amounts and all other amounts payable pursuant to Condition 4 or any amendment or supplement to it, and (iii) “**principal**” and/or “**interest**” shall be deemed to include any additional amounts that may be payable under this Condition 7 or any undertaking given in addition to or in substitution for it under the Trust Deed.

8. Prescription

Claims against the Issuer for payment in respect of the Covered Bonds and Coupons (which, for this purpose, shall not include Talons) shall be prescribed and become void unless made within 10 years (in the case of principal) or five years (in the case of interest) from the appropriate Relevant Date in respect of them.

9. Issuer Covenants

The Issuer makes the covenants set out in clause 4 (*Issuer Covenants*) of the Establishment Deed (in these Conditions, the “**Issuer Covenants**”) in favour of the Trustee for so long as any of the Covered Bonds are outstanding. The Trustee shall hold the benefit of the Issuer Covenants on trust for the Covered Bondholders and Couponholders of the relevant Series.

10. Events of Default

- (a) **Issuer Events of Default:** If any of the following events (each an “**Issuer Event of Default**”) occurs, the Trustee at its discretion may (but is not obliged to do so) and, if so requested in writing by holders of at least 25 per cent. in nominal amount of the Covered Bonds of this Series and the Covered Bonds of all other Series then outstanding as if they were all a single Series or if so directed by an Extraordinary Resolution of holders of Covered Bonds of all outstanding Series as if they were all a single Series shall (but in the case of the happening of any of the events mentioned in sub-paragraph (iii) below, the Trustee may but shall not be obliged to certify that the occurrence of such event is materially prejudicial to the interests of the holders of the Covered Bonds of any Series) (subject in each case to the Trustee being indemnified and/or secured and/or pre-funded to its satisfaction), give notice to the Issuer (which notice shall be copied to the Asset Monitor and the Rating Agencies) (an “**Issuer EOD Notice**”) that an Issuer Event of Default has occurred:
 - (i) **Non-payment under Covered Bonds:** default is made in the payment of any amount of principal or interest in respect of the Covered Bonds of any Series on the due date for payment thereof (including, in respect of Covered Bonds for which an Extended Maturity Date is specified, default in the payment of principal in full on the Maturity Date) and such default remains unremedied for 10 days or, in the case of default in the payment of interest, 15 days thereafter; or
 - (ii) **Non-payment under Swap Agreement:** default is made by the Issuer in the payment of any amount under any Swap Agreement on the due date for payment thereof and the expiration of any applicable grace period; or
 - (iii) **Breach of Issuer Covenants:** default is made in the performance or observance of any of the Issuer Covenants (other than in respect of the Pre-Maturity Test (for which Condition 10(a)(x)

applies) or the Asset Coverage Test (for which Condition 10(a)(xi) applies)) and such default remains unremedied for 30 days (or such longer period as the Trustee may permit) after written notice thereof, addressed to the Issuer, has been delivered by the Trustee to the Issuer; or

- (iv) **Cross-acceleration:** (A) any Indebtedness in aggregate exceeding U.S.\$20,000,000 (or its equivalent in one or more currencies) of the Issuer is not paid within 30 days after the due date or, as the case may be, the expiry of any originally applicable grace period, (B) any Indebtedness in aggregate exceeding U.S.\$20,000,000 (or its equivalent in one or more currencies) becomes due and payable prior to its stated maturity by reason of acceleration following a default by the Issuer or (in the absence of any event of default, howsoever described) any person entitled to such Indebtedness or (C) the Issuer fails to pay within 30 days after the due date or, as the case may be, the expiry of any originally applicable grace period, any amount in aggregate exceeding U.S.\$20,000,000 (or its equivalent in one or more currencies) payable by it under any Surety, in each case excluding any Indebtedness or Surety for which non-payment is due to an on-going litigation or dispute in a court, arbitral body or other regulatory authority regarding payment of such Indebtedness or Surety; or
- (v) **Enforcement proceedings:** an execution or other legal process is levied, enforced or sued out upon or against the whole or substantially the whole of the property of the Issuer which is material in its effect upon the operations of the Issuer and is not discharged or stayed within 60 days; or
- (vi) **Security enforced:** a secured party takes possession, or a receiver, manager or other similar officer is appointed, of the whole or substantially the whole of the undertaking, assets and revenues of the Issuer; or
- (vii) **Insolvency, etc.:** (A) the Issuer becomes insolvent or is unable to pay its debts generally as they fall due; (B) an administrator or liquidator of the Issuer or the whole or substantially the whole of the undertaking, assets and revenues of the Issuer is appointed (or application for any such appointment is made and is not withdrawn within 60 days thereafter) or (C) the Issuer takes any action for a readjustment or deferment of any of its obligations or makes a general assignment or an arrangement or composition with or for the benefit of its creditors or declares a moratorium in respect of any of its Indebtedness or any Surety given by it; or
- (viii) **Winding up:** an order is made or an effective resolution is passed for the winding up of the Issuer; or
- (ix) **Analogous event:** any event occurs which under the laws of Korea has an analogous effect to any of the events referred to in Conditions 10(a)(v) to 10(a)(viii) (both inclusive) above (including, without limitation, rehabilitation under the Debtor Rehabilitation and Bankruptcy Act); or
- (x) **Failure of Pre-Maturity Test:** (A) the Pre-Maturity Test in respect of any Series of Hard Bullet Covered Bonds is breached during the Pre-Maturity Test Period of such Series of Hard Bullet Covered Bonds and the Issuer does not add Pre-Maturity Liquidity Assets to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account with a Pre-Maturity Liquidity Assets Value at least equal to the Series Required Redemption Amount on or before the earlier of (1) 20 Korean Business Days following such failure of the Pre-Maturity Test and (2) the Maturity Date of such Series of Hard Bullet Covered Bonds (such earlier date, the “**Series Required Redemption Amount Cut-off Date**”), except where the Pre-Maturity Test Cure Requirement is satisfied in respect of all Series of Hard Bullet Covered Bonds which are scheduled to mature within 12 months of such Pre-Maturity Test Date on or prior to the Series Required Redemption Amount Cut-off Date, or (B) in relation to all PMT Ongoing Test Series, the Issuer fails to add Pre-Maturity Liquidity Assets to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account with a Pre-Maturity Liquidity Assets Value at least equal to the PMT Shortfall Amount (if any) in respect of a PMT Shortfall Valuation Date on or before the immediately succeeding PMT Shortfall Valuation Date, except where the Pre-Maturity Test Cure Requirement is satisfied on any Pre-Maturity Test Date during the period from the date of determination of such PMT Shortfall Amount to (and including) such immediately succeeding PMT Shortfall Valuation Date; or

- (xi) **Failure of Asset Coverage Test:** (A) an Asset Coverage Test Breach Notice has been served and remains outstanding and has not been revoked or deemed to have been revoked on or before the second Calculation Date after service of such Asset Coverage Test Breach Notice by the Asset Monitor on the Issuer, or (B) an Asset Coverage Test Breach Notice has been served on the Issuer by the Asset Monitor following the determination by the Asset Monitor that there have been errors in the relevant calculations of the Asset Coverage Test performed by the Issuer and that the Asset Coverage Test was not satisfied on the previous three Calculation Dates (where the Issuer had recorded it as being satisfied on those days), and such breach of the Asset Coverage Test is not cured within 60 days of receipt of that Asset Coverage Test Breach Notice; or
- (xii) **Covered Bond Event of Default:** the occurrence of a Covered Bond Event of Default.
- (b) **Covered Bond Events of Default:** If, following the occurrence of an Issuer Event of Default which is continuing and in respect of which an Issuer EOD Notice has been given by the Trustee to the Issuer, any of the following events (each a “**Covered Bond Event of Default**”) occurs, the Trustee at its discretion may (but is not obliged to do so) and, if so requested in writing by holders of at least 25 per cent. in nominal amount of the Covered Bonds of this Series and the Covered Bonds of all other Series then outstanding as if they were all a single Series, or if so directed by an Extraordinary Resolution of holders of Covered Bonds of all outstanding Series as if they were all a single Series, shall (subject in each case to the Trustee being indemnified and/or secured and/or pre-funded to its satisfaction) give notice to the Issuer (which notice shall be copied to the Asset Monitor and the Rating Agencies) (an “**Acceleration Notice**”) that the Covered Bonds shall immediately become due and repayable, whereupon the Covered Bonds shall immediately become due and repayable at their Final Redemption Amount together with accrued interest as provided in the Trust Deed:
 - (i) **Failure of Amortisation Test:** failure to satisfy the Amortisation Test, and the Issuer fails to bring the Cover Pool into compliance with the Amortisation Test within 30 days of such breach; or
 - (ii) **Non-payment:** default is made in the payment of any amount of principal or interest in respect of the Covered Bonds of any Series on the due date for payment thereof (subject to Condition 5(b)) and such default remains unremedied for 20 days or, in the case of default in the payment of interest, 25 days thereafter.
- (c) The Issuer shall not issue any further Covered Bonds if the Trustee has given an Issuer EOD Notice to the Issuer in accordance with Condition 10(a).
- (d) In these Conditions:
 - (i) “**Indebtedness**” means any obligation (whether present or future, actual or contingent) for the payment or repayment of money which has been borrowed or raised (including money raised by way of acceptances or leasing);
 - (ii) “**Person**” means any individual, company, corporation, firm, partnership, joint venture, association, organisation, state, agency of a state or other entity, whether or not having a separate legal personality; and
 - (iii) “**Surety**” means any obligation of any Person(s) to pay any Indebtedness of another Person(s) in an aggregate principal amount of not less than U.S.\$20,000,000 including, without limitation, (A) any obligation to purchase such Indebtedness, (B) any obligation to lend or give money, to purchase or subscribe shares or other securities or to purchase assets or services in order to provide funds for the payment of such Indebtedness, (C) any indemnity against the consequences of a default payment in the payment of such indebtedness and (D) any other agreement to be responsible for such indebtedness.

11. Meetings of Covered Bondholders, Modification, Waiver and Substitution

- (a) **Meetings of Covered Bondholders:** The Trust Deed contains provisions for convening meetings of Covered Bondholders to consider any matter affecting their interests, including the sanctioning by Extraordinary Resolution (as defined in the Trust Deed) of a modification of any of these Conditions or any provisions of the Trust Deed or the other Transaction Documents. Such a meeting may be convened by the Issuer or the Trustee and shall be convened by the Trustee if requested in writing by Covered Bondholders holding not less than 10 per cent. in nominal amount of the Covered Bonds for

the time being outstanding (subject to, in each case, the Trustee being indemnified and/or secured and/or prefunded to its satisfaction against the costs and expenses of such meeting). The quorum for any meeting convened to consider an Extraordinary Resolution shall be two or more persons holding or representing more than 50 per cent. in nominal amount of the Covered Bonds for the time being outstanding, or at any adjourned meeting two or more persons being or representing Covered Bondholders whatever the nominal amount of the Covered Bonds held or represented, unless (i) the business of such meeting is the substitution of the Issuer as principal debtor under the Trust Deed, in which case no quorum is required provided that the holders of the relevant nominal amount outstanding of the Covered Bonds have approved such substitution; or (ii) the business of such meeting includes consideration of proposals, *inter alia*, (A) to amend the dates of maturity or redemption of the Covered Bonds, any date for payment of interest or Interest Amounts on the Covered Bonds, in each case, for the avoidance of doubt, other than due to an Extended Maturity Date being specified in the relevant Pricing Supplement, (B) to reduce or cancel the nominal amount of, or any premium payable on redemption of, the Covered Bonds, (C) to reduce the rate or rates of interest in respect of the Covered Bonds or to vary the method or basis of calculating the rate or rates or amount of interest or the basis for calculating any Interest Amount in respect of the Covered Bonds, (D) if a Minimum Rate of Interest and/or a Maximum Rate of Interest or Redemption Amount is shown in the relevant Pricing Supplement, to reduce any such Minimum Rate of Interest and/or Maximum Rate of Interest or any such Redemption Amount, (E) to vary any method of, or basis for, calculating the Final Redemption Amount or the Optional Redemption Amount or (F) to modify the provisions concerning the quorum required at any meeting of Covered Bondholders or the majority required to pass an Extraordinary Resolution, in which case the necessary quorum shall be two or more persons holding or representing not less than 75 per cent, or at any adjourned meeting not less than 25 per cent, in nominal amount of the Covered Bonds for the time being outstanding. Any Extraordinary Resolution duly passed shall be binding on Covered Bondholders (whether or not they were present at the meeting at which such resolution was passed) and on all Couponholders.

The Trust Deed provides that a resolution:

- (i) in writing signed by or on behalf of; or
- (ii) approved by way of electronic consents communicated through the electronic communications systems of the relevant clearing system(s) to the Issuing and Paying Agent or another specified agent and/or the Trustee in accordance with their operating rules and procedures by or on behalf of,

the holders of not less than 75 per cent. (or, in the case of a resolution regarding the substitution of the Issuer as principal debtor under the Trust Deed, such percentage as is required by the Korean Covered Bond Laws) in nominal amount of the Covered Bonds outstanding shall for all purposes be as valid and effective as an Extraordinary Resolution passed at a meeting of Covered Bondholders duly convened and held. Such a resolution in writing may be contained in one document or several documents in the same form, each signed by or on behalf of one or more Covered Bondholders.

The Trust Deed sets out the requirements for the holding of meetings of the Covered Bondholders where the relevant resolution affects one Series alone or more than one Series. The Trust Deed further provides that where any provisions of the Trust Deed or the Conditions expressly require an Extraordinary Resolution of the Covered Bonds of all outstanding Series as if they were all a single Series, any such Extraordinary Resolution shall be deemed to have been duly passed only if passed at a single meeting of the Covered Bondholders of all Series (provided that any such resolution may also be passed by resolutions in writing or approved by way of electronic consents).

These Conditions may be amended, modified or varied in relation to any Series of Covered Bonds by the terms of the relevant Pricing Supplement in relation to such Series.

(b) Modification of the Transaction Documents:

- (i) Subject to Condition 11(b)(ii) below, the Trustee may agree, without the consent of the Covered Bondholders or Couponholders, to (A) any modification of any of the provisions of the Transaction Documents (including these Conditions) that is in the opinion of the Trustee of a formal, minor or technical nature or is made to correct a manifest error or to comply with any mandatory provision of law, and (B) any other modification (other than a modification relating to a Series Reserved Matter or a modification requiring the consent of Covered Bondholders under the Korean Covered Bond Laws), and any waiver or authorisation of any

breach or proposed breach, of any of the provisions of the Transaction Documents (including these Conditions) that is in the opinion of the Trustee not materially prejudicial to the interests of the Covered Bondholders of any Series, provided that in the case of a waiver or authorisation, the Trustee shall not do so in contravention of an express direction given by an Extraordinary Resolution or a request made pursuant to this Condition 11, and provided further that in each case the Trustee has received a legal opinion from a reputable law firm in Korea confirming that in respect of the relevant modification, waiver or authorisation either (x) no consent is required from the FSC, the MOEF and/or any other relevant Korean authority; or that (y) such consent has been received from the FSC, the MOEF and/or any other relevant Korean authority.

- (ii) Notwithstanding Condition 11(b)(i) above and subject to the terms of the Trust Deed, the Trustee shall, without the consent of the Covered Bondholders or Couponholders, be obliged to concur with the Issuer in making any modifications (other than a modification relating to a Series Reserved Matter or a modification requiring the consent of Covered Bondholders under the Korean Covered Bond Laws) to the Transaction Documents (including these Conditions) to which it is a party or entering into any new documents, whether in its existing capacity as Trustee or in a new capacity, that the Issuer considers necessary:
 - (I) for the purpose of adding any additional Rating Agency or replacing any existing Rating Agency with a replacement Rating Agency or removing any Rating Agency in relation to the Programme and/or maintaining the current rating and complying with, or implementing or reflecting, any change in the criteria of one or more of the Rating Agencies which may be applicable from time to time to maintain that rating, provided that the Issuer certifies in writing to the Trustee that such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect and if applicable, is necessary to comply with such criteria (including to avoid a downgrade, withdrawal or suspension of the then current rating assigned by each Rating Agency to any Series of Covered Bonds);
 - (II) for the purpose of enabling any Series of Covered Bonds to achieve a S&P rating of “AAA” and/or a Fitch rating of “AAA” and/or equivalent rating of any replacement Rating Agency, provided that the Issuer certifies in writing to the Trustee that such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect and is necessary to achieve such a rating;
 - (III) for the purpose of making any modification to a Transaction Document or entering into new documents proposed by the Issuer in order (A) for a Swap Provider or an Account Bank to remain eligible to perform its role in such capacity in conformity with the criteria of the Rating Agencies and/or (B) for the Swap Provider or an Account Bank to avoid taking action which it would otherwise be required to take to enable it to continue performing such role (including, without limitation, posting collateral or advancing funds), provided that the Issuer certifies in writing to the Trustee that such modification or entry into new documents is necessary for the purposes described in Conditions 11(b)(ii)(III)(A) and/or 11(b)(ii)(III)(B) above;
 - (IV) for the purpose of enabling the Covered Bonds issued under the Programme to qualify or to continue to qualify as regulated covered bonds under the Korean Covered Bond Laws and which the Issuer certifies in writing to the Trustee are necessary to comply with the Korean Covered Bond Laws and are required solely for such purpose and have been drafted solely to such effect or, as the case may be, are solely to implement and reflect the Korean Covered Bond Laws;
 - (V) for the purpose of enabling the Covered Bonds issued under the Programme or any relevant Transaction Party to comply with any mandatory provisions of law, provided that the Issuer certifies to the Trustee in writing that such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect;
 - (VI) for the purpose of enabling the Covered Bonds to be (or to remain) listed on the Stock Exchange, provided that the Issuer certifies to the Trustee in writing that such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect;

(VII) for the purpose of enabling the Issuer to issue Covered Bonds in the form of N Bonds under the Programme on the following terms: (1) the terms and conditions of the N Bonds shall be governed by German law (save for Condition 3 (*Status*), which shall be governed by Korean law); (2) the N Bonds shall not be listed or traded on any Stock Exchange, but shall be issued in registered form on a private placement basis to eligible investors; and (3) the N Bonds shall constitute “Covered Bonds” issued under the Programme, ranking *pari passu* with all other Covered Bonds issued from time to time; or

(VIII) in order to enable the Issuer and/or the Swap Provider (or any potential Swap Provider), as the case may be, to comply with:

- (i) any obligation which applies to it under Articles 9, 10 and 11 of Regulation (EU) 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories dated 4 July 2012 (including, without limitation, any associated regulatory technical standards and advice, guidance or recommendations from relevant supervisory regulators) (EMIR); or
- (ii) any other obligation which applies to it under EMIR; or
- (iii) any other obligation under any applicable laws or regulations that require parties to uncleared over-the-counter derivative transactions to report such transactions to a trade repository and/or to exchange collateral in the form of initial margin and/or variation margin,

and any modification in connection with sub-paragraphs (VIII)(i) to (VIII)(iii) above may include (and without limitation) modifications to the provisions set out in the Transaction Documents regarding payments using assets in the Cover Pool, withdrawal of cash from the Cover Pool, opening of additional Cover Pool Accounts by the Issuer and the priority of payments in order to allow payments in respect of collateral by the Issuer (or, following the service of an Issuer EOD Notice, the Asset Monitor) to the Swap Provider in priority to amounts payable to the Covered Bondholders or Couponholders (but, for the avoidance of doubt, the Trustee is not obliged to agree to modifications to allow such payments to be made *pari passu* or in priority to payments to the Trustee in the priority of payments provisions); or

(IX) for the purpose of enabling the Covered Bonds issued under the Programme to qualify or to continue to qualify under any equivalence regime introduced for third-country credit institutions issuing covered bonds and for investors in those covered bonds as referred to in Article 31 of Directive (EU) 2019/2162 of the European Parliament and of the Council of 27 November 2019 on the issue of covered bonds and covered bond public supervision and amending Directives 2009/65/EC and 2014/59/EU (“**EU Covered Bond Directive**”) and which the Issuer certifies in writing to the Trustee are necessary to comply with any such equivalence regime in relation to the EU Covered Bond Directive and/or Regulation (EU) 2019/2160 of the European Parliament and of the Council of 27 November 2019 amending Regulation (EU) No 575/2013 as regards exposures in the form of Covered Bonds, and are required solely for such purpose and have been drafted solely to such effect,

provided that the Issuer (or, in the case of sub-paragraph (VIII) above, the Issuer, the Swap Provider and/or the potential Swap Provider, as appropriate) certifies to the Trustee in writing (and in the case of the Issuer, any such certificate to be signed by an Authorised Signatory of the Issuer) that (i) such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect and (ii) the Issuer has received advice from a reputable law firm in Korea that in respect of the relevant modification or entry into new documents either (x) no consent is required from the FSC, the MOEF and any other relevant Korean authority (other than an amendment filing to the Covered Bond Issuance Plan and acceptance thereof by the FSC); or that (y) any and all consents which are required from the FSC, the MOEF and any other relevant Korean authority have been received from the FSC, the MOEF and any other relevant Korean authority and are in full force and effect.

Each certificate to be provided by the Issuer or the relevant Transaction Party or the relevant potential Swap Provider, as the case may be, pursuant to paragraphs (I) to (VIII) above is a

“Modification Certificate” and it is agreed that the Trustee shall rely on any Modification Certificate absolutely and without further enquiry or liability to any Covered Bondholders or Couponholders or any other person, provided that:

- (1) except for any modification or entry into new documents pursuant to Condition 11(b)(ii)(VII) the Issuer has provided at least 30 days’ notice to the Covered Bondholders of each Series of the proposed modification or entry into new documents in accordance with Condition 16; and
- (2) the Modification Certificate(s) in relation to such modification or entry into new documents shall be provided to the Trustee both at the time the Trustee is notified of the proposed modification or entry into new documents and on the date that such modification or entry into new documents takes effect,

and further provided that:

- (3) except for any modification or entry into new documents pursuant to Condition 11(b)(ii)(VII), Covered Bondholders representing at least 10 per cent. in nominal amount of the Covered Bonds of all Series then outstanding as if they were all a single Series (and for this purpose, the nominal amount of Covered Bonds which are not denominated in U.S. dollars shall be the equivalent in U.S. dollars at the spot rate of a bank nominated by the Issuer or (following the service of an Issuer EOD Notice) the Asset Monitor for the conversion of the relevant currency or currencies into U.S. dollars on the seventh dealing day prior to the last day of the notification period referred to above) have not contacted the Trustee in writing (or otherwise in accordance with the then current practise of any applicable clearing system through which such Covered Bonds may be held) within such notification period notifying the Trustee that such Covered Bondholders do not consent to the modification or entry into new documents.

If Covered Bondholders representing at least 10 per cent. in nominal amount of the Covered Bonds of all Series then outstanding as if they were all a single Series (and for this purpose, the nominal amount of Covered Bonds which are not denominated in U.S. dollars shall be the equivalent in U.S. dollars at the spot rate of a bank nominated by the Issuer or (following the service of an Issuer EOD Notice) the Asset Monitor for the conversion of the relevant currency or currencies into U.S. dollars on the seventh dealing day prior to the last day of the notification period referred to above) have notified the Trustee in writing (or otherwise in accordance with the then current practise of any applicable clearing system through which such Covered Bonds may be held) within the notification period referred to above that they do not consent to the modification or entry into new documents, then such modification or entry into new documents will not be made unless a single Extraordinary Resolution or, as determined in accordance with the provisions of the Trust Deed, separate Extraordinary Resolutions of the Covered Bondholders of the Series affected by such modification or entry into new documents is/are passed in favour of such modification or entry into new documents in accordance with Condition 11(a). Objections made in writing other than through the applicable clearing system must be accompanied by evidence to the Trustee’s satisfaction (having regard to prevailing market practises) of the relevant Covered Bondholder’s holding of the Covered Bonds;

- (4) the Issuer:
 - (i) obtains from each of the Rating Agencies written confirmation that such modification or entry into new documents would not result in a downgrade, withdrawal or suspension of the then current ratings assigned to any Series of Covered Bonds by such Rating Agency and would not result in any Rating Agency placing any Covered Bonds on rating watch negative (or equivalent) and delivers a copy of each such confirmation to the Issuer and the Trustee; or
 - (ii) certifies in the Modification Certificate that it has been unable to obtain such written confirmation, but has received oral confirmation from an appropriately authorised person at each of the Rating Agencies that such modification or entry into new documents would not result in (x) a downgrade, withdrawal or suspension of the then current ratings assigned to any Covered Bonds by such Rating Agency or (y) such Rating Agency placing any Covered Bonds on rating watch negative (or equivalent); or

- (iii) certifies in the Modification Certificate that it has informed the Rating Agencies of the proposed modification or entry into new documents and none of the Rating Agencies has indicated that such modification or entry into new documents would result in (x) a downgrade, withdrawal or suspension of the then current ratings assigned to any Covered Bonds by such Rating Agency or (y) such Rating Agency placing any Covered Bonds on rating watch negative (or equivalent);
 - (5) the Asset Monitor has provided its consent to such modification or entry into new documents prior to the date that such modification or entry into new documents takes effect, such consent not to be unreasonably withheld or delayed, and a copy of such consent has been provided to the Trustee; and
 - (6) the Issuer pays all fees, all costs and expenses (including legal fees) properly incurred and all liabilities and other amounts incurred by the Trustee in connection with such modification, or entry into new documents.
- (iii) Any such modification, entry into new documents, authorisation or waiver in accordance with the Trust Deed and this Condition 11(b) shall be binding on the Covered Bondholders and the Couponholders and such modification or entry into new documents shall be notified by the Issuer as soon as reasonably practicable to the Covered Bondholders (in accordance with Condition 16), the Asset Monitor and, so long as any of the Covered Bonds rated by the Rating Agencies remains Outstanding, each Rating Agency.
- (c) **Substitution:** The Trust Deed provides that if, pursuant to Article 22(3) of the Korean Covered Bond Act, the FSC has requested that the consent of Covered Bondholders be sought in preparation for an order to be given by the FSC that the contracts relating to the Covered Bonds be transferred to another issuer, the Issuer will seek, subject to such amendment of the Trust Deed and such other conditions as the Trustee may require, the consent of holders of Covered Bonds of all outstanding Series as if they were all a single Series of Covered Bonds acting by Extraordinary Resolution, to the substitution of the relevant substitute issuer that is an 'Eligible Issuer' for the purposes of the Korean Covered Bond Act (the "**Substituted Obligor**") in place of the Issuer, or of any previous substituted company, as principal debtor under the Trust Deed and the Covered Bonds, provided that the Issuer and the Substituted Obligor comply with such other requirements as the Trustee may direct in the interests of the Covered Bondholders.

Notice of the substitution shall be given by the Issuer to the Covered Bondholders (in accordance with Condition 16), with a copy of such notice provided to each Rating Agency, within 14 days of the execution of such amendment and/or transfer documents as aforesaid and compliance with such requirements.

Provided that holders of Covered Bonds of all outstanding Series as if they were a single Series, acting by Extraordinary Resolution, have approved such substitution, and upon completion of the formalities set out in the Trust Deed, the Substituted Obligor shall be deemed to be named in the Transaction Documents, the Covered Bonds, the Certificates, the Coupons and the Talons as the principal debtor in place of the Issuer (or of any previous substitute) and the Transaction Documents, the Covered Bonds, the Certificates, the Coupons and the Talons shall be deemed to be amended as necessary to give effect to the substitution.

- (d) **Entitlement of the Trustee:** In connection with the exercise of its functions, rights, powers and discretions (including but not limited to those referred to in this Condition 11) the Trustee shall have regard to the interests of the Covered Bondholders as a class and shall not have regard to the consequences of such exercise for individual Covered Bondholders or Couponholders, and the Trustee shall not be entitled to require on behalf of any Covered Bondholder or Couponholder, nor shall any Covered Bondholder or Couponholder be entitled to claim, from the Issuer any indemnification or payment in respect of any tax consequence of any such exercise upon individual Covered Bondholders or Couponholders.
- (e) **Deemed consent to termination or resignation of Asset Monitor:** By holding Covered Bonds, each Covered Bondholder is deemed to consent to the resignation or termination of the Asset Monitor if:
 - (i) such resignation or termination of the Asset Monitor is due to the appointment of the Asset Monitor as the auditor of the Issuer or where it is expected that the Asset Monitor will be appointed as the auditor of the Issuer; or

- (ii) an Extraordinary Resolution of holders of Covered Bonds of all outstanding Series as if they were all a single Series has approved such resignation or termination of the Asset Monitor.

12. Enforcement

At any time after the Covered Bonds become due and payable, the Trustee may, at its discretion and without further notice, institute such proceedings and/or take such other steps and/or action (including lodging an appeal in any proceedings) against or in relation to the Issuer or any other person as it may think fit to enforce the terms of the Trust Deed, the Covered Bonds and the Coupons, but it need not institute any such proceedings and/or take any such other steps or action unless (a) it shall have been so directed by the Covered Bondholders acting by way of an Extraordinary Resolution of holders of Covered Bonds of all outstanding Series as if they were all a single Series or so requested in writing by Covered Bondholders holding at least 25 per cent. in nominal amount of the Covered Bonds of all outstanding Series as if they were all a single Series, and (b) it shall have been indemnified and/or secured and/or pre-funded to its satisfaction. No Covered Bondholder or Couponholder may proceed directly against the Issuer unless the Trustee, having become bound so to proceed, fails to do so within a reasonable time and such failure is continuing. Any proceeds received by a Covered Bondholder pursuant to any such proceedings brought by a Covered Bondholder shall be paid promptly following receipt thereof to the Trustee for application pursuant to clause 12 of the Establishment Deed or, as the case may be, pursuant to Clause 5.1 of the Trust Deed.

13. Indemnification of the Trustee

The Trust Deed contains provisions for the indemnification of the Trustee and for its relief from responsibility. The Trustee is entitled to enter into business transactions with the Issuer and/or any other Transaction Party and any entity related to the Issuer and/or any other Transaction Party without accounting for any profit.

The Trustee may rely without liability to Covered Bondholders or Couponholders, the Issuer, any other Transaction Party or any other person on any report, confirmation or certificate or any advice or opinion of any accountants, legal advisers, financial advisers, financial institution or any other expert, whether or not addressed to it and whether their liability in relation thereto is limited (by its terms or by any engagement letter relating thereto entered into by the Trustee or any other person or in any other manner) by reference to a monetary cap, methodology or otherwise. The Trustee may accept and shall be entitled to rely on any such report, confirmation, certificate, advice or opinion and, in such event, such report, confirmation, certificate, advice or opinion shall be binding on the Issuer, the Trustee and the Covered Bondholders and Couponholders.

None of the Trustee or any of the Agents shall be responsible for the performance by the Issuer, the Asset Monitor or any other person appointed by the Issuer in relation to the Covered Bonds of the duties and obligations on their part expressed in respect of the same or under the Transaction Documents and, unless it has express written notice from the Issuer to the contrary, the Trustee and each Agent shall be entitled to assume that the same are being duly performed.

None of the Trustee or any Agent shall be liable to any Covered Bondholders or Couponholder, the Issuer, any other Transaction Party or any other person for any action taken by the Trustee or such Agent in accordance with the instructions of the Covered Bondholders. The Trustee shall be entitled to rely on any direction, request or resolution of Covered Bondholders given by holders of the requisite principal amount of Covered Bonds outstanding or passed at a meeting of Covered Bondholders convened and held in accordance with the Trust Deed.

Whenever the Trustee is required or entitled by the terms of the Trust Deed, these Conditions or any other Transaction Document to exercise any discretion or power, take any action, make any decision or give any direction, the Trustee is entitled, prior to its exercising any such discretion or power, taking any such action, making any such decision, or giving any such direction, to seek directions from the Covered Bondholders by way of an Extraordinary Resolution, and the Trustee is not responsible or liable to any person for any loss or liability incurred by any person as a result of any delay in it exercising such discretion or power, taking such action, making such decision, or giving such direction where the Trustee is seeking such directions or in the event that no such directions are received.

The Trustee shall not be under any obligation to monitor compliance with the provisions of the Trust Deed, any other Transaction Document or these Conditions.

Each Covered Bondholder and Couponholder shall be solely responsible for making and continuing to make its own independent appraisal and investigation into the financial condition, creditworthiness, condition, affairs, status and nature of the Issuer, the Asset Monitor and each other Transaction Party, and the Trustee shall not at any time have any responsibility for the same and each Covered Bondholder and Couponholder shall not rely on the Trustee in respect thereof.

14. Replacement of Covered Bonds, Certificates, Coupons and Talons

If a Covered Bond, Certificate, Coupon or Talon is lost, stolen, mutilated, defaced or destroyed, it may be replaced, subject to applicable laws, regulations and stock exchange or other relevant authority regulations, at the specified office of the Issuing and Paying Agent (in the case of Bearer Covered Bonds, Coupons or Talons) and of the relevant Registrar (in the case of Certificates) or such other Paying Agent or Transfer Agent, as the case may be, as may from time to time be designated by the Issuer for the purpose and notice of whose designation is given to Covered Bondholders, in each case on payment by the claimant of the fees and costs incurred in connection therewith and on such terms as to evidence, security and indemnity (which may provide, *inter alia*, that if the allegedly lost, stolen or destroyed Covered Bond, Certificate, Coupon or Talon is subsequently presented for payment or, as the case may be, for exchange for further Coupons, there shall be paid to the Issuer on demand the amount payable by the Issuer in respect of such Covered Bonds, Certificates, Coupons or further Coupons) and otherwise as the Issuer may require. Mutilated or defaced Covered Bonds, Certificates, Coupons or Talons must be surrendered before replacements will be issued.

15. Further Issues

The Issuer may from time to time without the consent of the Covered Bondholders or Couponholders create and issue further covered bonds either having the same terms and conditions as the Covered Bonds in all respects (or in all respects except for the Issue Date and the first payment of interest on them) and so that such further issue shall be consolidated and form a single series with the outstanding Covered Bonds of any series (including the Covered Bonds) or upon such terms as the Issuer may determine at the time of their issue, subject to the Trustee first receiving written confirmation from the Issuer that:

- (a) the Asset Coverage Test was satisfied on the previous Calculation Date and will continue to be satisfied after the issue of any further covered bonds; and
- (b) no Issuer Event of Default has occurred or will occur as a consequence of the issue of any further covered bonds.

References in these Conditions to the Covered Bonds include (unless the context requires otherwise) any further covered bonds issued pursuant to this Condition 15 and forming a single series with the Covered Bonds. Any further covered bonds forming a single series with the outstanding securities of any series (including the Covered Bonds) constituted by the Trust Deed or any deed supplemental to it shall, and any other covered bonds may (with the consent of the Trustee), be constituted by the Trust Deed. The Trust Deed contains provisions for convening a single meeting of the Covered Bondholders and the holders of Covered Bonds of other series in certain circumstances. The Issuer shall notify each Rating Agency upon the issue of any further covered bonds.

16. Notices

Notices to the holders of Registered Covered Bonds shall be mailed to them at their respective addresses in the Register and deemed to have been given on the fourth weekday (being a day other than a Saturday or a Sunday) after the date of mailing. Notices to the holders of Bearer Covered Bonds shall be valid if published in a daily newspaper of general circulation in London (which is expected to be the *Financial Times*). Any such notice shall be deemed to have been given on the date of such publication or, if published more than once or on different dates, on the first date on which publication is made, as provided above.

Couponholders shall be deemed for all purposes to have notice of the contents of any notice given to the holders of Bearer Covered Bonds in accordance with this Condition 16.

17. Contracts (Rights of Third Parties) Act 1999

Without prejudice to Condition 12, no person shall have any right to enforce any term or condition of the Covered Bonds under the Contracts (Rights of Third Parties) Act 1999.

18. Governing Law and Jurisdiction

- (a) **Governing Law:** The Trust Deed, the Covered Bonds, the Coupons and the Talons and any non-contractual obligations arising out of or in connection with them are governed by, and shall be construed in accordance with, English law save that the provisions of Condition 3 are governed by, and shall be construed in accordance with, Korean law.
- (b) **Jurisdiction:** The courts of England are to have jurisdiction to settle any disputes (whether contractual or non-contractual) that may arise out of or in connection with any Covered Bonds, Coupons or Talons and accordingly any legal action or proceedings arising out of or in connection with any Covered Bonds, Coupons or Talons (“**Proceedings**”) may be brought in such courts. The Issuer has in the Trust Deed irrevocably submitted to the jurisdiction of such courts.
- (c) **Service of Process:** The Issuer has in the Trust Deed irrevocably appointed an agent in England to receive, for it and on its behalf, service of process in any Proceedings in England.

USE OF PROCEEDS

The net proceeds from each issue of Covered Bonds will be: (a) applied by the Issuer for its general corporate purposes; and/or (b) if so specified in the relevant Pricing Supplement, allocated by the Issuer towards the financing or refinancing, in whole or in part, of projects in Green Eligible Categories, Social Eligible Categories (each as defined below) or a combination of the two categories (in the case of Sustainability Bonds) in accordance with its Sustainable Financing Framework (see “*Sustainable Financing Framework*”).

According to the definition criteria set out by the International Capital Markets Association (“**ICMA**”) Green Bond Principles, the ICMA Social Bond Principles or the ICMA Sustainability Bond Guidelines (as defined herein), only Tranches of Covered Bonds allocated exclusively to financing or refinancing Green Eligible Categories, Social Eligible Categories or a combination of the two categories (in the case of Sustainability Bonds) may be designated as “Green Bonds,” “Social Bonds” or “Sustainability Bonds.”

Green Eligible Categories, Social Eligible Categories or a combination of the two categories (in the case of Sustainability Bonds) have been defined in accordance with the broad categorisation of eligibility for Green Projects, Social Projects or Sustainability Projects set out by the ICMA Green Bond Principles, the ICMA Social Bond Principles or the ICMA Sustainability Bond Guidelines.

“Green Eligible Categories” are those which comprise financing within the Green Eligible Categories set out in the Issuer’s Sustainable Financing Framework. Such Green Eligible Categories include those which relate to: renewable energy, energy efficiency, clean transportation, green buildings, pollution prevention and control and sustainable management of living natural resources and land use.

“Social Eligible Categories” are those which comprise financing within the Social Eligible Categories set out in the Issuer’s Sustainable Financing Framework. Such Social Eligible Categories include those which relate to: access to essential services, affordable housing, employment generation and socioeconomic advancement and empowerment.

Financings within categories related to the luxury sectors, industries associated with elevated risk of child labour, adult entertainment, weapons, alcohol, tobacco, fossil fuel, nuclear, large-scale hydro-power projects with a generating capacity of more than 25MW and biomass suitable for food production are specifically excluded from consideration for eligibility.

SUSTAINABLE FINANCING FRAMEWORK

As part of its commitment to responsible corporate citizenship, the Issuer has elected to create a Sustainability Financing Framework (the “**Framework**”), which will help the Issuer to issue financing instruments such as bonds and loans that contribute to sustainable development. Capitalised terms used but not otherwise defined herein shall have the same meanings as in the Framework, which is publicly available on the following website: <https://www.hanafn.com/esg/report/esgbond/archive.do>

The objective of the Framework is to reinforce the Issuer’s capabilities in financing green and social projects and contribute to the achievement of the UN Sustainable Development Goals.

The Framework is in line with:

- The ICMA Green Bond Principles (GBP), Social Bond Principles (SBP) and the Sustainability Bond Guidelines (SBG)
- The LMA Green Loan Principles (GLP) and Social Loan Principles (SLP) jointly published by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications and Trading Association

The Framework is presented through the following four key pillars:

- (1) Use of Proceeds
- (2) Process for Project Evaluation and Selection
- (3) Management of Proceeds
- (4) Reporting

The Framework enables the Issuer to launch sustainable financing transactions in the following formats (the “**Sustainability Financing Transaction**” or “**SFT**”):

- Green SFT: Financing of Eligible Green Assets (as defined in the Framework) and/or green bonds/loans for refinancing
- Social SFT: Finance of Eligible Social Assets (as defined in the Framework) and/or social bonds/loans for refinancing
- Sustainability SFT: Finance of a mix of Eligible Green Assets and Eligible Social Assets and/or sustainability bonds/loans for refinancing

Use of Proceeds

The amount equivalent to the net proceeds of SFTs issued under the Framework will be used to finance or refinance Eligible Assets that fall under one of the Eligible Categories defined in the Framework.

Process for Evaluation and Selection of Projects

The project evaluation and selection process will ensure that the amount equivalent to the net proceeds of the Issuer’s SFT is allocated to new lending or existing projects/expenditures that meet the criteria set out in the Framework.

In addition, the eligibility of assets will also be subject to consistency with the Issuer’s environmental and/or social (E&S) screening process applied during loan origination. The Issuer has enhanced the monitoring, assessment, and management of ESG-related issues and established clear direction and process for E&S risk management, including establishing a thorough screening and oversight process to minimise both direct and indirect negative E&S consequences that may be generated through the Issuer’s business activities and operations.

The Issuer has also set up an ESG Planning Section (“**ESG PS**”) to carry out the evaluation and selection process. The ESG PS collaborates with Hana Financial Group’s ESG Planning Section to align procedures between the Issuer and the Group.

On an ongoing basis, Eligible Assets from the Issuer's lending book will be identified and proposed by the Issuer's business units. Relevant business units will screen customer information against the Eligibility Criteria set out in the Framework and recommend eligible projects or expenditures for inclusion as Eligible Assets to the ESG PS. The ESG PS will evaluate and monitor the eligibility requests of the recommended projects at controversy and decide whether to include the recommended projects as Eligible Assets.

On an annual basis, the ESG PS will review all proposed Eligible Assets to determine their compliance with the Framework to approve the allocation of proceeds. The ESG PS will also review the allocation of the proceeds to the Eligible Use of Proceeds annually and determine if any changes are necessary (for instance, if assets have been prepaid, sold or otherwise become ineligible). Moreover, ESG PS will also review the management of proceeds and facilitate reporting.

Management of Proceeds

To manage the proceeds of its SFT, the Issuer will establish a Sustainable Financing Register. The amount equivalent to the net proceeds of each SFT will be deposited in general funding accounts and earmarked for allocation in the Sustainable Financing Register.

The Sustainable Financing Register will be reviewed annually by the ESG PS to account for any repayments and drawings on the Eligible Assets. The portfolio will be managed with a view to ensure that the amount of Eligible Assets allocated will be equal to or exceed the balance of the net proceeds of outstanding SFT issued over time.

Reporting

The Issuer will publish the Sustainable Bond Report on an annual basis until the full allocation of the proceeds or the maturity of the relevant bond. In the instances of any material changes in the projects allocated or replacement of the allocated assets, the Issuer will also publish an updated allocation report. The Sustainable Bond Report will cover the allocation and impact metrics and will be published on the following website:
<https://www.hanafn.com/esg/report/esgbond/archive.do>

External Review

The Issuer has engaged Moody's Investors Service to provide an External Review in the form of a Second Party Opinion that confirms the alignment of the Framework with the ICMA GBP, SBP, SBG, and the LMA GLP and SLP.

The Second Party Opinion will be made available on the following website:
<https://www.hanafn.com/esg/report/esgbond/archive.do>

Neither the Second Party Opinion nor the Issuer's Framework is and shall be deemed to be incorporated into and/or form part of this Offering Circular.

None of the Dealers makes any representation or warranty, express or implied, concerning any information in the Framework, and nothing contained in the Framework is, or shall be relied upon as, a promise or representation, from the Dealers. None of the Dealers accepts any responsibility for the contents of the Framework. The Dealers have not separately verified nor will make any assurances as to (i) whether any Green Bonds, Social Bonds or Sustainability Bonds will meet the investor criteria and expectations regarding environmental impact and sustainability performance of any investor, (ii) whether an amount equal to the net proceeds will be used for financing the Green Eligible Categories, Social Eligible Categories or a combination of the two categories (in the case of Sustainability Bonds) or (iii) the characteristics of the Green Eligible Categories or Social Eligible Categories, including their environmental and sustainability criteria.

None of the Dealers accepts any responsibility for any environmental, social and sustainability assessment of any Covered Bonds which will be issued as Green Bonds, Social Bonds or Sustainability Bonds or makes any representation or warranty or assurance whether such Covered Bonds will meet any investor expectations or requirements regarding such "green", "social", "sustainable" or similar labels or any requirements of such labels as they may evolve from time to time. None of the Dealers is responsible for the use or allocation of proceeds for

any Covered Bonds issued as Green Bonds, Social Bonds or Sustainability Bonds nor the impact or monitoring of such use of proceeds nor do any of the Dealers undertake to ensure that an amount equal to the net proceeds of the issue of such Green Bonds, Social Bonds or Sustainability Bonds will be used for financing the Green Eligible Categories, Social Eligible Categories or a combination of the two categories (in the case of Sustainability Bonds).

In addition, none of the Dealers is responsible for the assessment of the Framework including the assessment of the applicable eligibility criteria in relation to Green Bonds, Social Bonds or Sustainability Bonds set out therein. The Second Party Opinion is not intended to address any credit, market or other aspects of an investment in any Covered Bonds, including without limitation market price, marketability, investor preference or suitability of any security. The Second Party Opinion is not a statement of fact. No representation or assurance is given by the Dealers as to the suitability or reliability of the Second Party Opinion or any opinion or certification of any third party made available in connection with any issue of Covered Bonds issued as Green Bonds, Social Bonds or Sustainability Bonds. The Second Party Opinion and any other such opinion is not, nor should be deemed to be, a recommendation by the Dealers, or any other person to buy, sell or hold any Covered Bonds and is current only as of the date it is issued. The criteria and/or considerations that formed the basis of the Second Party Opinion or any such other opinion may change at any time and the Second Party Opinion may be amended, updated, supplemented, replaced and/or withdrawn. Prospective investors must determine for themselves the relevance of any such opinion and/or the information contained therein. The Framework may also be subject to review and change and may be amended, updated, supplemented, replaced and/or withdrawn from time to time and any subsequent version(s) may differ from any description given in this Offering Circular.

In the event any such Covered Bonds are, or are intended to be, listed, or admitted to trading on a dedicated “green”, “social”, “sustainable” or other equivalently labelled segment of a stock exchange or securities market, no representation or assurance is given by the Dealers that such listing or admission will be obtained or maintained for the lifetime of the Covered Bonds.

EXCHANGE RATES

The table below sets out, for the periods and dates indicated, information concerning the Market Average Exchange Rate, which is rounded to the nearest tenth of one Won. No representation is made that the Won or U.S. dollar amounts referred to herein could have been or could be converted into U.S. dollars or Won, as the case may be, at any particular rate, or at all.

<u>Year ended 31 December</u>	<u>Low</u>	<u>High</u>	<u>Average⁽¹⁾</u> <i>(Won per US\$1.00)</i>	<u>Period-end</u>
2019	1,111.6	1,218.9	1,165.7	1,157.8
2020	1,082.7	1,280.1	1,180.1	1,088.0
2021	1,083.1	1,199.1	1,144.4	1,185.5
2022	1,185.5	1,436.6	1,292.0	1,267.3
2023	1,219.3	1,360.6	1,305.4	1,289.4
2024	1,289.4	1,474.1	1,364.0	1,470.0
July	1,376.3	1,389.4	1,383.4	1,384.6
August	1,323.9	1,380.1	1,354.2	1,333.0
September	1,319.6	1,344.3	1,334.8	1,319.6
October	1,306.9	1,387.0	1,361.0	1,383.3
November	1,371.3	1,407.3	1,393.4	1,394.7
December	1,395.1	1,474.1	1,434.4	1,470.0
2025 (through 6 January)	1,466.8	1,470.0	1,468.4	1,466.8
January (through 6 January)	1,466.8	1,470.0	1,468.4	1,466.8

Source: Seoul Money Brokerage Services, Ltd.

(1) Represents the average of the daily Market Average Exchange Rate over the relevant period.

INVESTMENT CONSIDERATIONS

Prospective purchasers of Covered Bonds should carefully review the information contained in this Offering Circular, including the following matters.

Risks Relating to Our Business

Uncertainties and instability in global market conditions could adversely affect our business, financial condition and results of operations, as well as the value of the Covered Bonds.

Most of our assets are located in Korea, where we generate most of our income. Accordingly, our business and profitability are largely dependent on the general economic and social conditions in Korea, including interest rates, inflation, exports, personal expenditure and consumption, unemployment, demand for business products and services, debt service burden of households and businesses, the general availability of credit, the asset value of real estate and securities and other factors affecting the financial well-being of our corporate and retail customers. The Korean economy is closely integrated with, and is significantly affected by, developments in the global economy and financial markets. Accordingly, adverse global market conditions could adversely affect economic conditions in Korea and in turn our business, financial condition and results of operations. See “— Risks Relating to Korea — Adverse developments in Korea may have adverse effects on us.”

While there have been mixed signs of recovery in the global economy in recent years, the global economic outlook for the near future continues to remain uncertain, mainly due to the general uncertainty about economic and political conditions in Europe and Latin America, the COVID-19 pandemic, the slowdown of economic growth in China and other major emerging market economies, a potential escalation in trade conflicts between the United States and China, continuing geopolitical and social instability in various parts of the Middle East and the escalation of hostilities in the Middle East following the Israel-Hamas war, Russia’s ongoing invasion of Ukraine and ensuing sanctions against Russia and, more recently, fluctuations in policy interest rates globally to combat inflationary pressures among others. While there were rapid increases in interest rates globally between the second half of 2021 and the first half of 2024 to combat inflation, many central banks, including those of Korea and the U.S., began cutting their policy interest rates in late 2024 as global inflation showed signs of stabilisation. Further fluctuations in inflation and policy interest rates may materially and adversely affect the global economy and the financial markets and in turn, our business, financial condition and results of operations. The Korean economy also continues to face difficulties, including sluggishness in domestic consumption and investment, volatility in the real estate market, rising household debt, potential declines in productivity due to ageing demographics and low birth rates, and a rise in income disparities. Any future deterioration of the global and Korean economies could adversely affect our business, financial condition and results of operations.

Our exposure to large Korean conglomerates, known as “chaebols”, could have an adverse effect on us.

One of our core banking businesses has historically been, and continues to be, lending to large corporations. As of 30 September 2024, on a separate basis, our loan exposure (consisting of loans, confirmed guarantees, acceptances and debt securities) to our 10 largest borrowers was ₩30.0 trillion, which represented 8.3% of our total exposures, and a majority of such borrowers were named in the “Main Debtor Group”, as identified and designated by the FSS. The Main Debtor Group is a list of companies maintained by the FSS which sets forth those companies whose outstanding credit amount to a financial institution is not less than 0.075% of the total credit provided by such financial institution and total debt is not less than 0.1% of the nominal GDP of Korea, and includes most of the Korean conglomerates, or *chaebols*. Our largest exposure, on a separate basis, to a single *chaebol* group as of 30 September 2024 was ₩3.9 trillion, which represented 1.1% of our total exposures. See “Description of Assets and Liabilities — Loan Concentrations”. As of 30 September 2024, our 10 largest credits were all classified as normal. However, if any of our large credits were to become non-performing, the quality of our total loan portfolio could be adversely affected and additional provisions may be required. In addition, we may decide to reduce or freeze the amount of credit available to certain large conglomerates in order to avoid excessive credit concentration in any single borrower or related group of borrowers, which may have an adverse impact on our profitability.

Exposure to small- and medium-sized enterprises (“SMEs”), and financial difficulties experienced by such enterprises, may result in a deterioration of our asset quality.

We provide an extensive range of loan products and other banking services to SMEs. As of 30 September 2024, our total loans to SMEs (before allowance for loan losses and net deferred loan fees and costs) amounted to

₩146.4 trillion, representing 40.1% of our total loan portfolio. In addition, as of 31 December 2021, 2022 and 2023 and 30 September 2024, on a separate basis, our delinquent loans (which represent loans the principal and interest amount of which is past due for one month or more) to SMEs were ₩223.6 billion, ₩381.0 billion, ₩516.6 billion and ₩724.0 billion, respectively, representing delinquency ratios (defined, on a separate basis, as delinquent SME loan amount divided by total SME loan amount, net of charge-offs and loan sales) of 0.19%, 0.31%, 0.38% and 0.52%, respectively.

Compared to loans to large corporate borrowers, which tend to be better capitalised and better able to weather business downturns, or loans to individuals and households, which tend to be secured with homes and with respect to which the borrowers are therefore less willing to default, loans to SMEs have historically had a relatively higher delinquency ratio. Many SMEs represent sole proprietorships or very small businesses dependent on a relatively limited number of suppliers or customers and tend to be affected to a greater extent than large corporate borrowers by fluctuations in the Korean and global economy. In addition, SMEs often maintain less sophisticated financial records than large corporate borrowers. Therefore, it is generally more difficult for banks to judge the level of risk inherent in lending to these enterprises, as compared to large corporate borrowers. In addition, many SMEs have close business relationships with *chaebols* in Korea, primarily as suppliers. Any difficulties encountered by those *chaebols* would likely hurt the liquidity and financial condition of related SMEs, including those to which we have exposure, also resulting in an impairment of their ability to repay loans. In recent years, some *chaebols* have expanded into China and other countries with lower labour costs and other expenses by relocating their production plants and facilities to such countries, which may have a material adverse impact on such SMEs.

Due to the relatively vulnerable financial position faced by SMEs in Korea, the Government has historically introduced policies and initiatives intended to encourage Korean banks to provide financial support to SME borrowers. For instance, in response to a series of Government-led initiatives to mitigate the impacts of adverse market conditions induced by the COVID-19 pandemic on SMEs and small merchants, we provided special loans to small merchants affected by the COVID-19 pandemic starting from 24 January 2022, but have ceased to provide such loans to small merchants since December 2022. Additionally, in December 2023, we joined other major commercial banks in Korea in announcing a joint statement with the FSC and the FSS according to which more than ₩2 trillion was committed as a relief measure to relieve the financially vulnerable groups affected by the COVID-19 pandemic. The overall prospects for the Korean economy in 2025 and beyond remain uncertain, and the Government may extend or renew existing or past policies and initiatives or introduce new policies or initiatives to encourage Korean banks to provide financial support to SMEs. Our participation in such Government-led initiatives may lead us to extend credit to SME borrowers that we would not otherwise extend, or offer terms for such credit that we would not otherwise offer, in the absence of such initiatives. There is no guarantee that the financial condition and liquidity position of our SME borrowers benefiting from such initiatives will improve sufficiently for them to service their debt on a timely basis, or at all. Accordingly, increases in our exposure to SME borrowers resulting from such Government-led initiatives may have a material adverse effect on our business, financial condition and results of operations.

We have been taking active steps to curtail delinquency among our SME customers, including by way of increasing our exposure to so-called “blue-chip” companies with low credit risk profiles and reducing our exposure to companies with high credit risk profiles. Despite such efforts, our delinquent loans to SMEs and delinquency ratios have been steadily increasing in recent years primarily due to the economic downturn which particularly affected small and self-employed enterprises and there can be no assurance that delinquency levels for our loans to SMEs will not rise further in the future. In addition, aggressive marketing and intense competition among banks to lend to this segment, may lead to a deterioration in the asset quality of our loans to this segment in the future. Any such deterioration would result in increased charge-offs, higher provisioning and reduced interest and fee income from this segment, which could have an adverse impact on our business, financial condition and results of operations.

The asset quality of our household loan portfolio may deteriorate.

In recent years, consumer debt, including lending to small unincorporated businesses, has continued to increase in Korea. Our portfolio of household loans is comprised of two principal product types, namely secured household loans (which are primarily comprised of housing loans secured by real estate) and general purpose household loans (which are unsecured loans and tend to carry a higher credit risk). As of 31 December 2021, 2022 and 2023 and 30 September 2024, our household loan portfolio (before allowance for loan losses and net deferred loan fees and costs) was ₩133.2 trillion, ₩132.5 trillion, ₩131.9 trillion and ₩136.8 trillion, representing 42.9%, 40.0%, 37.8% and 37.5% of our total loans outstanding, respectively.

Our large exposure to household loans means that we are exposed to changes in economic conditions affecting Korean consumers. For example, a rise in unemployment or an increase in interest rates in Korea could adversely affect the ability of consumers to make payments and increase the likelihood of potential defaults. Accordingly, economic difficulties in Korea that hurt consumers could result in increasing delinquencies and a decline in the asset quality of our household loan portfolio, which would in turn require us to record increased provisions for credit loss and charge-offs and may materially and adversely affect our business, financial condition and results of operations.

In response to increasing levels of household loans in recent years and amid concerns over the debt-servicing capacity of borrowers if interest rates were to rise, the Government has led a series of initiatives for Korean commercial banks, including us, to participate to help manage the debt-servicing capacity of borrowers. For example, under a pre-workout programme for household borrowers, maturity extensions and/or interest reductions are provided for borrowers with total loans of ₩1.5 billion or less (consisting of no more than ₩500 million of unsecured loans and ₩1 billion of secured loans) who are in arrears on their payments for more than 30 days but less than 90 days, or for retail borrowers with an annual income of ₩40 million or less who have been in arrears on their payments for 30 days or more on an aggregate basis for the 12 months prior to their application, among others. Our participation in such refinancing programme may lead to a decrease in our interest income on our outstanding mortgage loans, as well as in our overall net interest margin. More generally, our participation in such Government-led initiatives to provide financial support to retail borrowers may lead us to offer credit terms for such borrowers that we would not otherwise offer in the absence of such initiatives, which may have an adverse effect on our business, financial condition and results of operations.

In addition, real estate comprises the most significant asset for a substantial number of households in Korea, and movements of housing prices have generally had a significant impact on the domestic economy. Accordingly, regulating housing prices, either in terms of attempting to stem actual or anticipated excessive speculation during times of a suspected housing price bubble and spur the pricing and/or volume of real estate transactions during times of a depressed real estate market by way of tax subsidy, guidelines to lending institutions or otherwise, has been a key policy initiative for the Government. In particular, the regulations on mortgage and home equity loans are susceptible to the changing housing market cycles and have been revised from time to time. From 2017 to 2022, the Government led by then President Moon Jae-in announced and implemented a series of robust policies aimed at taming speculation and deterring the rise of housing prices. However, since the second half of 2022, the Government led by President Yoon Suk Yeol has announced and implemented a series of policies to ease the demand-side regulations in the real estate market in order to prevent the housing prices from crashing in light of general increases in interest rates. For example, the Government has released most areas from “speculative areas”, “overheated speculative areas” and “adjustment targeted areas” (collectively, the “**regulated areas**”), where tighter loan-to-value ratios and debt-to-income ratios are applicable to mortgage or home equity loans, and as a result, only Gangnam-Gu, Seocho-Gu, Songpa-Gu and Yongsan-Gu in the greater Seoul metropolitan area are currently left as the regulated areas. The Government also increased the loan to value ratio applicable to the regulated areas from 40% to 50%, removed the application of stricter loan to value ratio to new loans secured by high-priced houses located in the regulated areas and, since March 2023, allowed the extension of new loans secured by houses located in the regulated areas to a household that already owns one or more house with the maximum loan-to-value ratio of 30%.

The Government’s relaxation of many of the restrictions on household loans, including on mortgage loans, was in response to rising base interest rate set by the Bank of Korea driven by global hyperinflation and depressed domestic real estate market. Despite the recent trend of decreasing interest rates that has started since September 2024, adverse trends of interest rates and real estate market conditions could lead to a deterioration of the quality of our household loan portfolio, which in turn could lead to an adverse impact on our business, financial condition and results of operations.

We have significant exposure through our lending and other activities to a number of industries, and financial difficulties of any companies within these industries may adversely impact us.

Many Korean companies, including certain of our borrowers in the real estate project financing, construction, shipbuilding and shipping sectors, are continuing to face financial difficulties rooted from the aftermath of the 2008 global financial crisis and accentuated by the COVID-19 pandemic. In the case of real estate project financing, a downturn in the construction industry, together with a continued stagnation of the real estate market, has resulted in difficulties for the real estate project financing industry. The high levels of interest rates prevailing in Korea from 2022 to the first half of 2024 resulted in increases in both the number of insolvent real estate projects and delinquency rates for project financing loans, including short-term bridge loans, in recent

years. The construction industry in Korea has been stagnant for many years due to stringent government regulations on real estate and a decrease in overseas construction orders, among others. In particular, a rise in the costs of raw materials including steel and cement as well as the base interest rate set by the Bank of Korea in recent years has increased the financial costs and contingent liabilities of many Korean construction companies in the industry with added uncertainties arising from construction companies' exposures to project financing loans. For example, Taeyoung E&C, a Korean construction company ranked 16th by building capacity in 2023, filed for a debt workout process in December 2023 after failing to repay its real estate project financing loan. In June 2024, Taeyoung E&C's financial creditors, including us, converted unsecured debt totaling ₩633 billion into equity. Consequently, we converted our loans amounting to ₩25 billion and received a 3.79% equity interest in Taeyoung E&C. As of 30 September 2024, the amount of loans we had provided to Taeyoung E&C was approximately ₩33.1 billion, including project finance loans of ₩2.2 billion, for which we set aside allowances for possible loan losses in the amount of ₩22.5 billion as of the same date. The shipbuilding and shipping industries in Korea experienced a severe downturn in recent years reflecting a significant decrease in ship orders, primarily due to the COVID-19 pandemic and the ensuing global lockdown caused a severe downturn in the industries in 2020. Although the shipbuilding and shipping industries subsequently showed signs of recovery from the pandemic due to increased global traffic resulting from increases in consumer spending and shipments as well as higher shipping rates reflecting more stringent global environmental regulations, the industries have again entered a downturn starting in the second quarter of 2022 resulting from a decrease in shipping volume and an increase in the supply of ships. The industries continue to face difficulties arising from, among others, a deteriorating global economy, an increase in global military conflicts, including the ongoing invasion of Ukraine by Russia and the escalation of hostilities in the Middle East following the Israel-Hamas war, a decrease in shipping volume and the strengthening of international shipping regulations.

As of 30 September 2024, on a separate basis, we had exposures of ₩4.6 trillion, ₩10.9 trillion, ₩8.2 trillion and ₩0.5 trillion to borrowers in the real estate project financing, construction, shipbuilding and shipping sectors, respectively, which represented 1.4%, 3.3%, 2.5% and 0.2%, respectively, of our total credits (including loans, guarantees, purchases of securities (only in the nature of a credit) and such other transactions which directly or indirectly create credit risk as reported to the FSC based on the FSC's asset classification criteria). As of the same date, we had set aside allowances for possible loan losses in the amount of ₩89.2 billion, ₩133.4 billion, ₩14.1 billion and ₩3.0 billion for our general loans to borrowers in the real estate financing, construction, shipbuilding and shipping sectors, respectively.

In addition to our on-balance sheet loan exposures, we have other exposures to such borrowers, in the form of guarantees extended for the benefit of such borrowers (which included, on a separate basis, ₩1,163.4 billion for construction companies, ₩5,263.7 billion for shipbuilding companies and ₩83.7 billion for shipping companies as of 30 September 2024, while there were no confirmed guarantees for real estate project financing companies) and debt and equity securities of such borrowers held by us. In the case of construction companies, such exposures include guarantees provided to us by general contractors with respect to financing extended by us for residential and commercial real estate development projects. In the case of shipbuilding companies, such exposures include refund guarantees extended by us on behalf of shipbuilding companies to cover their obligation to return a portion of the ship order contract amount to customers in the event of performance delays or defaults under shipbuilding contracts.

As of 30 September 2024, our largest single exposure (consisting of loans, confirmed guarantees and acceptances, and debt and equity securities) in the real estate project financing, construction, shipbuilding and shipping sectors was to HD Hyundai Heavy Industries Co., Ltd., which amounted to ₩1,994.3 billion, on a separate basis, for which we established allowances of ₩0.5 billion. Our other significant exposures as of the same date include Samsung Heavy Industries Co., Ltd. and Booyoung Housing Co., Ltd. in the amount of ₩1,929.7 billion and ₩1,534.5 billion, respectively, on a separate basis, for which we had allowances of ₩2.0 billion and ₩1.1 billion, respectively.

Companies in the cable TV network industry in Korea have also been experiencing financial difficulties due to decreasing revenue and subscription base, as many subscribers opt for new forms of media such as Internet streaming, Internet Protocol Television, online video sharing platforms and OTT (over-the-top) platforms in lieu of cable TV subscription. As of 30 September 2024, our exposure to D'Live Co., Ltd. ("**D'Live**"), a major cable TV network and subsidiary of Kookmin Cable Investment Inc. ("**Kookmin Cable**"), amounted to ₩40.6 billion, on a separate basis, and we established allowances for the entire exposure amount. Since 2016, D'Live has faced the risk of defaulting on the loans from us and other creditors due to their inability to make interest payments. We and other creditors have extended maturity and lowered interest rates of the loans and converted loans to Kookmin Cable into equity. As of 30 September 2024, we held 4.42% interest in Kookmin Cable. D'Live is

undergoing a sale process as of the date of this Offering Circular. Subject to market conditions, we plan to liquidate our equity investments in Kookmin Cable after the successful completion of the sale.

The allowances that we have established against our credit exposures to Korean companies in the above described industries may be insufficient to cover all future losses arising from such exposures. If the credit quality of our exposures to such Korean companies declines, we may be required to take substantial additional provisions for credit loss, which could adversely impact our business, financial condition and results of operations. Furthermore, although a portion of our loans to such Korean companies may be secured by collateral, such collateral may be insufficient to cover uncollectible amounts in respect of such loans. See “— *A decline in the value of the collateral securing our loans or our inability to fully realise the collateral value may adversely affect us.*”

We have exposure to companies that are currently or may in the future be put in restructuring, and we may suffer losses as a result of additional loan loss provisions which may be required and/or the adoption of restructuring plans with which we do not agree.

As of 30 September 2024, on a separate basis, our loans to companies that were in restructuring (in the form of either workout or rehabilitation) amounted to ₩151.4 billion, representing 0.04% of our total loans. Our allowances for losses on these loans may not be sufficient to cover all future losses arising from our exposure to these companies. Furthermore, we have other exposure to such companies, in the form of guarantees extended for the benefit of such companies and debt and equity securities of such companies held by us (including equity securities we acquired as a result of debt-to-equity conversions). With respect to those companies that are in or may in the future enter into workout or liquidation proceedings, we may not be able to make any recoveries against such companies. We may, therefore, experience future losses with respect to those loans. In addition, in the case of borrowers that are or become subject to workout, we may be forced to restructure our credits pursuant to restructuring plans approved by other creditor financial institutions or to dispose of our credits to other creditors on unfavourable terms, which may adversely affect our business, financial condition and results of operations.

In particular, as of 30 September 2024, on a separate basis, we had ₩55.1 billion of outstanding loans and ₩534.5 billion of outstanding guarantees (mainly in the form of refund guarantees relating to shipbuilding contracts), to Hanwha Ocean Co., Ltd. (“**Hanwha Ocean**”), formerly known as Daewoo Shipbuilding & Marine Engineering Co., Ltd. (“**DSME**”). In April 2017, the creditors of DSME agreed on a plan to provide additional financial support to DSME in connection with its voluntary restructuring programme, under which The Korea Development Bank and The Export-Import Bank of Korea would provide ₩2.9 trillion of new loans to DSME, on the condition that DSME’s other creditors and bondholders agree to a ₩2.9 trillion debt-to-equity swap. The financial support plan required the Korean commercial bank creditors of DSME, including us, to swap 80% of their outstanding unsecured loans into equity of DSME and extend the maturity of the remaining loans for a period of three years. The financial support plan also required DSME’s creditors, including us, to provide additional refund guarantees in connection with future shipbuilding contracts of DSME. As a result of the debt-to-equity swap, we converted our loans in the amount of ₩364 billion and received 8.40% of equity interest in DSME, which was subsequently reduced to 1.88% as of 30 September 2024 as a result of the completion of acquisition of 49.3% equity interest in DSME by a group of subsidiaries of Hanwha Group in April 2023 and an additional paid-in capital increase in May 2023. Our current exposure to Hanwha Ocean includes the refund guarantee, which may require us to increase our loan loss provisions and recognise write-offs and impairment losses, and may therefore have a material adverse impact on our results of operations and financial condition.

In furtherance of policy objectives, the Government may promote lending and financial support to certain types of institutions to which we would not lend or provide support absent such policies, and such lending or other forms of support may negatively impact our financial condition.

Through its policies and recommendations, the Government has promoted and, as a matter of policy, may continue to attempt to promote lending by the Korean financial industry to particular types of borrowers. For example, the Government has in the past provided and may continue to provide policy loans, which encourage lending to particular types of borrowers. The Government has generally provided such loans by identifying sectors of the economy it wishes to promote and making low-interest funding available to financial institutions that may voluntarily choose to lend to these sectors. For example, the Government has in this manner provided policy loans intended to promote mortgage lending to low-income individuals and lending to SMEs. The Government may implement similar or other initiatives in the future to spur the overall economy or encourage the growth of targeted industries or relief to certain segments of the population. All loans or credits we choose to

make pursuant to these policy loans would be subject to review in accordance with our credit approval procedures. However, the availability of policy loans may influence us to lend to certain sectors or in a manner in which we otherwise would not have done in the absence of such policy initiatives from the Government, and the policy-driven lending may create enhanced difficulties for us in terms of risk management and may lead to deterioration of our asset quality and reduced earnings.

In addition, the Government has requested and may in the future request financial institutions in Korea, including us, to make investments in or provide other forms of financial support to particular sectors of the Korean economy as a matter of policy, which such financial institutions, including us, may decide to accept. We may incur costs or losses as a result of providing such financial support.

Competition in the Korean banking industry is intense and may further intensify.

We compete principally with other national banks in Korea. We also face competition from a number of additional sources including regional banks, Government policy banks, specialised banks, branches of foreign banks operating in Korea and various other types of financial service institutions. In particular, competition in the retail and SME lending business, which has traditionally been an important business for us, has increased significantly in recent years and is expected to increase further. In addition, the profitability of our retail banking operations may decline as a result of growing market saturation in the retail lending segment, increased interest rate competition and higher marketing expenses. Intense and increasing competition has made and continues to make it more difficult for us to secure retail and SME customers with the credit quality and on credit terms necessary to achieve our business objectives in a commercially acceptable manner.

Consolidation among our rival institutions and the Government's privatisation efforts may also add competition in the markets in which we conduct business. For example, pursuant to the implementation of the Government's privatisation plan with respect to Woori Finance Holdings Co., Ltd. (the former financial holding company of Woori Bank) and its former subsidiaries, certain subsidiaries of Woori Finance Holdings Co., Ltd. were sold to other financial institutions and Woori Finance Holdings Co., Ltd. itself was merged into Woori Bank in 2014. In January 2019, Woori Financial Group Inc. was established as Woori Bank's new financial holding company. Furthermore, large financial groups have been focused on further growing their asset size and strengthening their non-banking businesses over the past few years by actively seeking acquisition targets. For example, Shinhan Financial Group acquired Orange Life Insurance Ltd. (formerly ING Life Insurance Korea Ltd.) in February 2019 and BNP Paribas Cardif General Insurance in November 2021. In September 2020, KB Financial Group acquired Prudential Life Insurance Co. of Korea. In line with this trend, Hana Financial Group, our parent holding company, also acquired The-K Non-Life Insurance in May 2020. We expect that consolidation in the financial industry will continue. Other financial institutions may seek to acquire or merge with other entities, and the financial institutions resulting from such consolidation may, by virtue of their increased size and business scope, provide significantly greater competition for us. Increased competition and continuing consolidation may lead to decreased margins, resulting in a material adverse impact on our future profitability.

In July 2023, the FSC announced various measures designed to encourage competition within the banking industry, including its intention to issue more banking licences (including those for internet-only banks, taking into consideration the performance and stability of the internet-only banks currently in operation) and actively permitting the conversion of existing regional or savings banks into nationwide commercial banks, for which the FSC and the FSS published detailed guidelines in January 2024. In this respect, as of the date of this Offering Circular, six consortiums, including those involving major nationwide commercial banks and other financial service providers, have publicly announced their intent to apply for an internet-only banking licence to become the fourth internet-only bank in Korea.

There can be no assurance that we will be able to compete effectively in the face of such increased competition. Increased competition in the Korean banking industry may make it difficult for us to increase the size of our loan portfolio and deposit base and maintain or improve our margins, which could have a material adverse effect on our business, financial condition and results of operations. See “— *The adoption of new technologies and competition from fintech companies and online-only banks may adversely affect our business, financial condition and results of operations.*”

The adoption of new technologies and competition from fintech companies and online-only banks may adversely affect our business, financial condition and results of operations.

Companies in the banking and financial industries have increasingly adopted new technologies, including artificial intelligence and data science, to provide innovative services to their customers and differentiate

themselves from competitors. In particular, the financial services industry is evolving rapidly to adapt to the growing popularity of mobile-based transactions and the growing demand for mobile banking, settlement and payment solutions. Accordingly, large commercial banks, digital banks, credit card companies, fintech and other financial services companies have each sought to provide mobile-based solutions to meet such growing consumer demand, which has often resulted in overlapping and competing products and service offerings and the blurring of the traditional roles of financial institutions in different sectors. For instance, K Bank, the first online-only bank in Korea, commenced operations in April 2017, and Kakao Bank, another online-only bank, commenced operations in July 2017 and went public in August 2021. Toss Bank, in which we hold a 8.96% interest, also commenced operations in October 2021. Online-only banks may have advantages over traditional banks as the former can pass savings in labour and overhead costs to their customers by offering higher interest rates on deposit accounts, lower loan costs and reduced service fees. Accordingly, commercial banks will likely face increasing pressure to upgrade their service platforms to attract and maintain online users, which represent a growing customer base compared to traditional customers who have primarily conducted banking in-person at physical banking branches.

Furthermore, many companies outside the traditional banking and financial services industries with large-scale user networks have emerged to provide financial services that do not require a banking licence. For example, each of Naver Financial, Kakao Pay and Toss operates mobile payment and money transfer platforms offering various financial services that may encroach on or compete with our service offerings.

In June 2019, the Government announced plans to introduce regulations to support the fintech industry. For example, the Government established a framework to provide “sandbox” regulations, which permit eligible financial service providers to test new financial services that are not covered by current regulations by allowing customers to use such services in a controlled environment, and expedited regulatory approvals to promising fintech companies, including those developing alternative payment systems, pursuant to the Special Act on Support for Financial Innovation of Korea. In December 2019, we participated in the formal launch of open banking services, along with other major commercial banks and fintech companies. Through such sandbox regulations, the Government has enabled increased collaboration between fintech companies. In addition, in July 2020, the Government announced the Comprehensive Digital Finance Innovation Plan, which included plans to allow certain fintech companies to apply to become a comprehensive payment settlement business entity that can open non-interest-accruing deposit and payment accounts for customers without having a banking licence. Furthermore, the FSC also began piloting a “digital sandbox” system called the “D-Testbed” in May 2021 to supplement the existing sandbox regulations, which would allow early stage fintech start-up companies, among others, to verify the business feasibility of innovative financial products through simulated virtual tests using real financial data before their launch. In August 2022, the FSC officially launched the D-Testbed programme, which supports data-based fintech companies by providing them with a comprehensive set of real financial and non-financial data compared to the pilot programme as well as opportunities to collaborate with financial companies, legal consulting and evaluation reports. In May 2024, the FSC announced further plans to improve the operation of such sandbox regulations, including its intention of regularly announcing the submission periods for application as an innovative financial service provider.

In June 2023, the FSC also announced that it would select, over the next three years, 30 fintech startups and early stage companies with innovative business models and growth potential as the “K-Fintech 30,” and provide them with various forms of support to assist their continued growth. Such support would include, among others, preferential terms on policy finance products, including increased credit limits and favourable interest rates, preferential treatment while using financial institutions’ services and other miscellaneous benefits while using fintech support programmes. As of the date of this Offering Circular, the FSC has selected the first 10 companies and the second 10 companies to be a part of the K-Fintech 30, and is expected to select the next ten companies in 2025.

While the Government’s plans in support of the fintech industry are still evolving and subject to change, these policies announced by the Government may be a precursor for the eventual melding of the banking and fintech industries in the mobile arena, which could result in new entrants to the market and increased competition among traditional financial institutions, digital banks and fintech platform companies. If we are unable to anticipate and prepare for increasing competition from companies outside the traditional banking and financial services industries, the financial condition and results of operations of our business could be adversely affected.

Changes in interest rates could hurt our net interest margin due to a mismatch in our assets and liabilities structures and other factors, which could have a material adverse effect on our asset quality and profitability.

Historically, the Bank of Korea has utilised monetary policies, including adjusting the base interest rate to stimulate economic growth or curb inflationary pressures. Between 2009 and 2019, the base interest rate set by the Bank of Korea, to which the market interest rates correlate, has fluctuated within a range of 1.25% and 3.25%. In March 2020, amid growing concerns over the COVID-19 pandemic, the Bank of Korea cut the base interest rate by 50 basis points to 0.75% and in May 2020 further to 0.50%. However, as the pandemic began to recede and the economy showed some signs of recovery starting from the second half of 2021, the Bank of Korea gradually raised the base interest rate multiple times to reach a pre-pandemic level of 1.25% from August 2021 through January 2022. And, in response to rising levels of household debt and inflation in Korea as well as globally, the Bank of Korea again raised the base interest rate to 1.50% in April 2022, 1.75% in May 2022, 2.25% in July 2022, 2.50% in August 2022, 3.00% in October 2022, 3.25% in November 2022 and 3.50% in January 2023 in an effort to address rising consumer prices. The base interest rate remained at 3.50% until October 2024, when it was reduced to 3.25%, and further lowered to 3.00% in November 2024, as inflation in Korea showed signs of stabilising and the need for economic stimulus grew.

Interest rate movements, in terms of magnitude and timing, have a significant impact on our net interest margin and profitability, particularly with respect to our financial products that are sensitive to such movements. For example, if the interest rates applicable to our loans (which are recorded as assets) increase at a slower pace or by a thinner margin than the interest rates applicable to our deposits (which are recorded as liabilities), our net interest margin will shrink and our profitability will be negatively affected. In addition, the relative size and composition of our variable rate loans and deposits (as compared to our fixed rate loans and deposits) may also impact our net interest margin. Furthermore, the difference in the average repricing frequency of our interest-earning assets (primarily loans) compared to our interest-bearing liabilities (primarily deposits) may also impact our net interest margin. For example, since our deposits tend to have longer terms, on average, than those of our loans, our deposits are on average less sensitive to movements in the base interest rates on which our deposits and loans tend to be pegged, and therefore, a decrease in the base interest rates tends to decrease our net interest margin while an increase in the base interest rates tends to have the opposite effect. While we continually manage our assets and liabilities to minimise our exposure to interest rate volatility, such efforts may not mitigate the impact of interest rate volatility in a timely or effective manner, and our net interest margin, and in turn our business, financial condition and results of operations, could suffer significantly.

We cannot assure when and to what extent the Government will in the future adjust the base interest rate, to which the market interest rate correlates. A decision to adjust the base interest rate is subject to many policy considerations as well as market factors, including the general economic cycle, inflationary levels, interest rates in other economies and foreign currency exchange rates, among others. In general, a decrease in interest rates adversely affects our interest income due to the different maturity structure for our assets and liabilities as discussed above. In contrast, if there were to be a significant or sustained increase in interest rates, all else being equal, such movement would lead to a decline in the value of traded debt securities and could also raise our funding costs, while reducing loan demand, especially among retail customers. Rising interest rates may therefore require us to re-balance our assets and liabilities in order to minimise the risk of potential mismatches in our asset liability management and to maintain our profitability. In addition, rising interest rates may adversely affect the Korean economy and the financial condition of our corporate and retail borrowers, which in turn may lead to deterioration of asset quality for our credit portfolio. Since most of our retail and corporate loans bear interest at rates that adjust periodically based on prevailing market rates, a sustained increase in interest rates will increase the funding costs of our borrowers and may adversely affect their ability to make payments on their outstanding loans.

A decline in the value of the collateral securing our loans or our inability to fully realise the collateral value may adversely affect us.

A substantial portion of our home and mortgage loans are secured by borrowers' homes, other real estate or other securities and guarantees (which are principally provided by the Government and other financial institutions), and a large portion of our corporate loans are also secured, including by real estate. The secured portion of our loans amounted to ₩242.1 trillion, or 79.5%, of our total loans as of 30 September 2024, on a separate basis. Although our general policy for home and mortgage loans is to lend up to 70% (or lower in the case of houses priced over a certain amount in accordance with Government regulations and located in areas designated by the Government as a regulated area) of the appraised value of the collateral and to periodically re-appraise the value of the collateral, the recent downturn in the real estate market in Korea has resulted in declines in the value of the

collateral securing our home and mortgage loans. If collateral values continue to decline in the future, they may not be sufficient to cover uncollectible amounts in respect of our secured loans. Any further declines in the value of the real estate or other collateral securing our loans, or our inability to obtain additional collateral in the event of such declines, may result in the deterioration of our asset quality and require us to take additional loan loss provisions.

In Korea, foreclosure on collateral generally requires a written petition to a Korean court. Foreclosure procedures in Korea typically take ten to fourteen months from initiation to collection depending on the nature of the collateral, and foreclosure applications may be subject to delays and administrative requirements, which may result in a decrease in the recovery value of such collateral. We cannot assure that we will be able to realise the full value of the collateral as there can be, among other factors, delays in foreclosure proceedings, defects in the perfection of the collateral and general declines in the collateral value. Our failure to recover the expected value of the collateral could expose us to significant losses.

Payment guarantees received in connection with our real estate financing may not provide sufficient coverage.

We, alone or together with other financial institutions, provide financing to real estate development projects, which are concentrated in the construction of residential and, to a lesser extent, commercial complexes. Developers in Korea commonly use project financing to acquire land and to cover related project development costs. It is market practise for general contractors to guarantee loans raised by special purpose financing vehicles established by the developers in order to procure the construction orders, as most developers tend to be small and highly leveraged. While general contractors tend to be large and well-established construction companies, there can be no guarantee that even such companies will have sufficient liquidity to back up their payment guarantees if the real estate development projects do not generate sufficient cash flow from pre-sales of the residential or commercial units. If defaults arise under our loans to real estate development projects and payment guarantees are not paid in sufficient amounts to cover the amount of our financings, our business, financial condition and results of operations may be adversely affected.

Additionally, the real estate financing is subject to strict regulatory supervision. In May 2024, the FSS strengthened the standards for evaluating the feasibility of project financing projects, which led to an increase in our non-performing loans and related provisions as existing projects are re-evaluated and reclassified.

Any deterioration in the asset quality of our guarantees and acceptances will likely have a material adverse effect on our business, financial condition and results of operations.

In the normal course of our banking activities, we make various commitments and incur certain contingent liabilities in the form of guarantees and acceptances, which are recorded as off-balance sheet items in the notes to our financial statements. As of 30 September 2024, we had aggregate guarantees and acceptances of ₩19.7 trillion, on a separate basis, for which we provided allowances for losses of ₩40.9 billion. No assurance can be given that such allowances will be sufficient to cover any actual losses resulting in respect of these instruments.

We may incur significant losses from our investments and, to a lesser extent, trading activities due to market fluctuations.

We enter into and maintain large investment positions in the fixed income markets, primarily through our treasury and investment business. We also maintain smaller trading positions, including securities and derivative financial instruments, as part of our banking operations. Maintaining these positions entails making assessments about financial market conditions and trends. The revenues and profits that we derive from many of these positions and related transactions are dependent on market prices, which are beyond our control. When we own assets such as debt securities, a decline in market prices, as a result of fluctuating market interest rates, can expose us to losses. In 2022, for instance, as the global financial market entered into recession, the value of our debt securities declined as a result of the rising interest rates compared to 2021. If market prices move in a way that we have not anticipated, we may experience losses. In addition, when markets are volatile and subject to rapid changes in the price directions, the actual market prices may be contrary to our assessments and lead to lower-than-anticipated revenues or profits, or even result in losses, with respect to the related transactions and positions.

We may incur losses from our commission- and fee-based business.

Downturns in stock markets are likely to lead to a decline in the volume of transactions that we execute for our customers and, therefore, to a decline in our non-interest revenues. In addition, because the fees that we charge

for managing our clients' portfolios are in many cases based on the size of the assets under management, a market downturn which has the effect of reducing the value of our clients' portfolios or increasing the amount of withdrawals may reduce the revenues that we receive from our trust account management. Even in the absence of a market downturn, below-market performance by our trust account services may result in increased withdrawals and reduced inflows, which may reduce the revenue that we receive from these businesses. In addition, protracted market movements resulting in declines of asset prices can reduce liquidity for assets held by us and lead to material losses if we cannot close out or otherwise dispose of deteriorating positions in a timely way or at commercially reasonable prices.

Our business may be adversely affected by legal claims and regulatory actions against us.

We and our employees are subject to the risk of legal claims and regulatory actions, which may expose us to monetary damages and legal costs, injunctive relief, criminal and civil penalties, sanctions against our management and employees and regulatory restrictions on our operations, as well as reputational harm. See “*Hana Bank — Legal and Regulatory Proceedings.*”

We are unable to predict the outcome of the legal claims and regulatory actions in which we and our employees are involved, and the scope of the claims or actions or the total amount in dispute in such matters may increase. Furthermore, adverse final determinations, decisions or resolutions in such matters could encourage other parties to bring related claims and actions against us. Accordingly, the outcome of current and future legal claims and regulatory actions, particularly those for which it is difficult to assess the maximum potential exposure or the ultimate adverse impact with any degree of certainty, may materially and adversely impact our business, reputation, financial condition and results of operations.

We may not be able to successfully execute our overseas expansion strategy.

As part of our business strategy, we have been seeking opportunities to expand our operations in markets outside Korea, including through the opening of additional overseas branches and offices as well as strategic acquisitions and investments, particularly in China and Southeast Asia, and entering into MOUs with leading banks in Eastern Europe, India and the Middle East. In 2019, we acquired a 15% stake in the Bank of Investment and Development of Vietnam (“**BIDV**”), one of the largest banks controlled by the State Bank of Vietnam, for over ₩1 trillion. In April 2022, we established a branch office in Taipei, Taiwan as the first and only Korean bank to establish presence in Taiwan. More recently, we entered into MOUs with several leading banks in Eastern Europe, India and Saudi Arabia as part of our strategies to explore further expansion of our presence in such regions, and we newly established representative offices in Monterrey, Mexico and Budapest, Hungary. While we will continue to explore opportunities to expand our global presence, the expansion of our operations abroad may be difficult due to the presence of established competitors in the relevant local markets. In addition, overseas expansion and the management of international operations may require significant financial expenditures as well as management resources, and will subject us to the challenges of operating in an unfamiliar business environment with different regulatory, legal and taxation systems and political, economic and social risks. Accordingly, there is no guarantee that we will be successful in executing our overseas expansion strategy. The failure of our overseas expansion strategy could have an adverse impact on our business, financial condition and results of operations.

Reductions in our credit ratings could, among other things, increase the cost of borrowing funds and may have an adverse impact on our ability to raise new funds or refinance maturing debt on commercially acceptable terms.

Credit ratings are an indicator of our financial and liquidity profile. Among other factors, our credit ratings are based on our financial strength, the credit quality of and concentrations in our loan portfolio, the level and volatility of our earnings, our capital adequacy, the quality of our management, the liquidity of our balance sheet, the availability of a significant base of core and retail deposits and our ability to access a broad range of funding sources. Any reduction in our credit ratings could adversely affect our liquidity and competitive position, increase our borrowing costs and limit our access to the capital markets and funding sources on commercially acceptable terms. Such events could adversely affect our business, financial condition and results of operations. A reduction in our ratings could also adversely affect the ratings of the Covered Bonds. See “— *Risks Relating to the Covered Bonds — Ratings of the Covered Bonds may be changed at any time and may adversely affect the fair market value of the Covered Bonds.*”

Our risk management policies and procedures may not be fully effective at all times.

In the course of our operations, we must manage a number of risks, such as credit risks, market risks and operational risks. We seek to monitor and manage our risk exposure through a comprehensive risk management platform, encompassing centralised risk management organisation and credit evaluation systems, reporting and monitoring systems, early warning systems and other risk management infrastructure, using a variety of risk management strategies and techniques. See “*Risk Management*.” Although we devote significant resources to developing and improving our risk management policies and procedures and expect to continue to do so in the future, our risk management techniques may not be fully effective at all times in mitigating risk exposures in all market environments or against all types of risk, including risks that are unidentified or unanticipated. Management of credit, market and operational risks requires, among other things, policies and procedures to properly record and verify a large number of transactions and events, and we cannot assure that these policies and procedures will prove to be fully effective at all times against all the risks that we face.

We may experience disruptions, delays and other difficulties relating to our information technology systems.

We rely on our IT systems for our daily operations, including billing, effecting online and offline financial transactions and recordkeeping. We also upgrade from time to time our group-wide customer data sharing and other customer relations management systems. We may experience disruptions, delays or other difficulties relating to our IT systems, and may not integrate or upgrade our systems as currently planned. Any of these developments may have an adverse effect on our business and adversely impact our customers’ confidence in us.

We are subject to cybersecurity risk.

We are subject to a risk of cyber-attacks, the nature of which is continually evolving. Cybersecurity risks include unauthorised access, through system-wide “hacking” or other means, to privileged and sensitive customer information, including passwords and account information and illegal use thereof. Cybersecurity risk is generally on the rise as a growing number of our customers increasingly rely on Internet- and mobile phone-based banking services for various types of financial transactions. While we vigilantly protect customer data through encryption and other security programmes and have made substantial investments to build and upgrade our systems to address the growing threats from cyber-attacks, there is no assurance that such data will not be subject to future security breaches as a result of illegal activities by our employees, outside consultants or hackers, or otherwise.

We have not experienced any material security breaches in the past. However, major financial institutions in Korea have fallen victim to cybersecurity attacks in the past, and given the unpredictable and continually evolving nature of cybersecurity threats due to advances in technology or other reasons, there is no assurance that, notwithstanding our best efforts at maintaining the best-in-class cybersecurity systems, we will not be vulnerable to major cybersecurity attacks in the future.

The public is developing heightened awareness about the importance of keeping their personal data private and the financial regulators are placing greater emphasis on data protection by financial service providers. As such, in light of the various incidents of security breaches involving financial institutions, the Government has implemented heightened consumer protection measures. For example, under the Personal Information Protection Act, financial institutions, as personal information managers, may not collect, store, maintain, utilise or provide resident registration numbers of their customers, except in any of the following cases: (i) where other laws or regulations specifically require or permit the management of resident registration numbers; (ii) where it is deemed manifestly necessary for the protection, from imminent danger, of life, bodily and property interests of a data subject or a third party; and (iii) where it is inevitable to process resident registration numbers in line with the above cases prescribed by Notification of the Protection Commission. Further, under the Use and Protection of Credit Information Act, a financial institution has a higher duty to protect all information that it collects from its customers and must ensure that the collection and processing of credit information comply with the provisions of the Act. When providing credit information to a third party, financial institutions are required to strictly follow the procedures set forth in the Credit Information Use and Protection Act, and in case of violation, an administrative fine may be imposed on the financial institution. In addition, under the Electronic Financial Transaction Act, a financial institution is primarily responsible for compensating its customers harmed by a cybersecurity breach affecting the financial institution, even if the breach is not directly attributable to the financial institution.

If a cyber or other security breach were to happen, it may result in litigation by affected customers or other third parties (including class actions), compensation for any losses suffered by victims of cybersecurity attacks,

reputational damage, loss of customers, heightened regulatory security and related sanctions, more stringent compliance with the present and future regulatory restrictions, and other costs related to damage control, reparation and reinforcement of information security systems, any of which may have a material adverse effect on our business, financial condition and results of operations.

We may be required to raise additional capital if our capital adequacy ratio deteriorates or the applicable capital requirements change in the future, but we may not be able to do so on favourable terms or at all.

Pursuant to the capital adequacy requirements of the FSC, as of the date of this Offering Circular, we are required to maintain a minimum common equity Tier I capital adequacy ratio of 9.0%, a minimum Tier I capital adequacy ratio of 10.5% and a combined Tier I and Tier II capital adequacy ratio of 12.5%, each on a consolidated basis (including applicable additional capital buffers and requirements as described below). Our Tier I capital adequacy ratio and our combined Tier I and Tier II capital adequacy ratio were 16.30% and 17.65%, respectively, as of 30 September 2024, each of which exceeded the minimum levels required by the FSC. See “*Capitalisation — Capital Adequacy*.” However, our capital base and capital adequacy ratio may deteriorate in the future if our business, financial condition or results of operations deteriorates for any reason, including as a result of a deterioration in the asset quality of our loans to households, SMEs and/or large conglomerates, or if we are not able to deploy our funding into suitably low-risk assets.

The current capital adequacy requirements of the FSC are derived from a new set of bank capital measures, referred to as Basel III (“**Basel III**”), which the Basel Committee on Banking Supervision initially introduced in 2009 and began phasing in starting from 2013. Commencing in July 2013, the FSC promulgated a series of amended regulations implementing Basel III, pursuant to which Korean banks and bank holding companies are currently required to maintain a minimum ratio of Tier I common equity capital (which principally includes equity capital, capital surplus and retained earnings) to risk-weighted assets of 4.5% and Tier I capital to risk-weighted assets of 6.0%. Such requirements are in addition to the pre-existing requirement for a total minimum ratio of Tier I and Tier II capital (less any capital deductions) to risk-weighted assets of 8.0%. The amended regulations also require an additional capital conservation buffer of 2.5%, as well as a potential counter-cyclical capital buffer of up to 2.5%, which is determined on a quarterly basis by the FSC. While counter-cyclical capital buffer was initially set at 0%, it was raised to 1% effective from May 2024. Furthermore, beginning in 2016, the FSC has annually designated “Domestic Systemically Important Banks”, which are required to maintain higher capital buffers. We have been designated as one of the “Domestic Systemically Important Banks” by the FSC since 2016 and have been subject to an additional capital requirement of 1.0%. The implementation of Basel III in Korea has had, and may continue to have, a significant effect on the capital requirements of Korean financial institutions, including us.

We may be required to obtain additional capital in the future in order to remain in compliance with more stringent capital adequacy and other regulatory requirements. However, we may not be able to obtain additional capital on favourable terms, or at all. Our ability to obtain additional capital at any time may be constrained to the extent that banks or other financial institutions in Korea or from other Asian countries are seeking to raise capital at the same time. To the extent that we fail to comply with applicable capital adequacy ratios or other regulatory requirements in the future, Korean regulatory authorities may impose penalties on us ranging from a warning to suspension or revocation of our banking licence.

We are a heavily regulated entity and operate in a legal and regulatory environment that is subject to change, and violations could result in penalties and other regulatory actions.

Under the Financial Consumer Protection Act, banks as financial instrument distributors will be subject to heightened investor and consumer protection measures, including stricter distribution guidelines, improved financial dispute resolution system, increased liability for damages borne by direct financial instrument distributors and newly imposed penalty surcharges starting from March 2021. We may also become subject to other restrictions on our operations as a result of future changes in laws and regulations, including more stringent liquidity requirements under Basel III, which are being adopted in phases in Korea in consideration of, among other things, the pace and scope of international adoption of such requirements. Specifically, Basel III includes a minimum liquidity standard, known as the liquidity coverage ratio (“**LCR**”), which is designed to ensure that banks have an adequate stock of unencumbered high-quality liquid assets (“**HQLA**”) that can be easily and speedily converted into cash in the private marketplace to survive a significant stress scenario lasting 30 calendar days. The LCR is computed as (a) the value of a banking organisation’s HQLA, divided by (b) its total expected net cash outflows over the next 30 calendar days under stress scenarios. In addition, we are required to maintain a minimum foreign currency liquidity coverage ratio (“**FLCR**”). The FLCR is computed as (a) the value of a

banking organisation's HQLA, divided by (b) its total expected net cash outflows over the next 30 calendar days under stress scenarios, each in terms of its foreign currency assets and liabilities.

The FSC requires us and other Korean commercial banks to maintain LCR of not less than 100% and FCLR of not less than 80%. The minimum LCR and FCLR were temporarily lowered between 2020 and 2024 due to the volatility and uncertainty facing the financial markets as a result of the COVID-19 pandemic, but as of the date of this Offering Circular, the applicable LCR and FCLR have been restored to 100% and 80%, respectively. Any of these regulatory developments may have a material adverse effect on our ability to expand operations or adequately manage our risks and liabilities.

In addition, violations of law and regulations could expose us to significant liabilities and sanctions. See *"Hana Bank — Legal and Regulatory Proceedings."* The FSC conducts periodic audits on banks and, from time to time, we have received institutional warnings from the FSC. If the FSC determines as part of such audit or otherwise that our financial condition is unsound or that we have violated applicable law or regulations, including FSC orders, or if we fail to meet applicable regulatory standards, such as minimum capital adequacy and liquidity ratios, as the case may be, set forth under Korean law, the FSC may order, among other things, capital increases or reductions, suspension of officers from performing their duties and appointment of custodians, stock cancellations, consolidations, transfers of business, sales of assets, closures of branch offices, mergers with other financial institutions and/or suspensions of a part or all of our business operations. If any of such measures is imposed on us as a result of unsound financial condition or failure to comply with minimum capital adequacy requirements or for other reasons, it will have a material adverse effect on our business, financial condition and results of operations.

For further details on the principal laws and regulations applicable to us, see *"Regulation and Supervision"*.

We may be assessed additional taxes in respect of prior periods as a result of tax audits by Korean tax authorities.

From time to time, we are subject to tax audits by Korean tax authorities. The most recent tax audit by the Seoul Regional Tax Office was completed in March 2023. Although we believe that we have complied with our obligations under applicable Korean tax laws and regulations in all material respects, there can be no assurance that we will not be involved in disputes with, or will not be assessed additional income or other taxes with respect to prior periods or in connection with the Merger by, Korean tax authorities as a result of tax audits of us. Any such additional taxes assessed against us, if significant, may have an adverse effect on our business, financial condition and results of operations.

We had engaged in limited activities with sanctions targets in the Russian Federation ("Russia") and operated as a settlement bank for Euro-denominated transactions with Iran, any of which may subject us to legal and reputational risks.

The U.S. Department of the Treasury's Office of Foreign Assets Control ("OFAC") administers and enforces certain laws and regulations ("OFAC Sanctions") that impose restrictions upon U.S. persons with respect to dealings with or related to certain countries, governments, entities and individuals that are the subject of OFAC Sanctions, including Russia and Iran, and maintains a list of specially designated nationals (the "SDN List"), whose assets are blocked and with whom U.S. persons are generally prohibited from dealing. OFAC also publishes a Sectoral Sanctions Identifications ("SSI") list to identify certain persons operating in sectors of the Russian economy identified by the Secretary of the Treasury pursuant to Executive Order 13662 and the four directives issued thereunder. Depending on the directive implicated, U.S. persons are prohibited from engaging in certain activities with those entities designated on the SSI list. Some OFAC Sanctions require a U.S. nexus in order to apply ("Primary Sanctions"), while other OFAC Sanctions on certain dealings with or related to Iran and Russia can apply even in the absence of a U.S. nexus ("Secondary Sanctions"). Non-U.S. persons are subject to Secondary Sanctions and can also be held liable for violations of OFAC Sanctions on various legal grounds, such as causing violations by U.S. persons by engaging in transactions completed in part in the United States or engaging in certain transactions with Iran and Iranian entities.

The European Union ("EU") also enforces certain laws and regulations that impose restrictions upon nationals and entities of, and business conducted in, member states with respect to activities or transactions with certain countries, governments, entities and individuals that are the subject of such laws and regulations. The United Nations Security Council and other governmental entities also impose similar sanctions.

In the past, we had engaged in certain dealings with VTB Bank by maintaining a Russian ruble account, and our Russian subsidiary (KEB HNB Rus LLC) also maintained a Russian ruble account with Sberbank. Both

Sberbank and VTB Bank are currently the targets of OFAC sanctions including Directive 1 (as amended) issued under Executive Order 13662, and as such they are included on OFAC's SSI list. Under Directive 1, certain activities by U.S. persons or conducted within the United States relating to debt or equity of certain SSI targets are prohibited. Sberbank is also subject to Directive 2 under E.O. 14024 ("**CAPTA sanction**"), which prohibits U.S. financial institutions from opening and maintaining correspondent and payable through-accounts on behalf of Sberbank. Sberbank was further added by OFAC to the SDN List on 6 April 2022 and VTB Bank was added by OFAC to the SDN List on 24 February 2022. Sberbank and VTB Bank are also targets of European Union restrictive measures under Council Regulation (EU) 2014/833 ("**Regulation 2014/833**"). Additionally, the EU has issued Council Regulation (EU) 2022/345 ("**Regulation 2022/345**") prohibiting the provision of specialised financial messaging services, which are used to exchange financial data, to VTB Bank and Council Regulation (EU) 2022/879 ("**Regulation 2022/879**") removing Sberbank's access to the SWIFT payment network. Both Sberbank and VTB Bank are also subject to UK economic sanctions.

While SSI sanctions on Sberbank and VTB Bank and CAPTA sanction on Sberbank do not apply to non-U.S. persons and entities and the designations of Sberbank and VTB Bank as SDNs do not prohibit a non-U.S. person from certain dealings with such entities, we have completely stopped all dealings and transactions with Sberbank and VTB Bank since 24 February 2022 and moved all balances in the VTB Bank account to our Russian subsidiary's (KEB HNB Rus LLC) account. Since 11 March 2022, we have maintained zero balance in the VTB Bank account and have no other nexus or business with any of the other sanctioned targets in Russia or around the world. Despite these efforts, non-U.S. persons may be exposed to sanctions risk in relation to activities with persons subject to blocking sanctions and there is no guarantee that such activities will not be found to violate applicable sanctions laws. Moreover, future changes in law concerning Sberbank or VTB Bank specifically or Russia generally could also adversely affect us. Accordingly, our historical activities relating to Russia may subject us to legal and reputational risks.

With regard to our Iran dealings, in August 2016, the Government authorised us to act as a settlement bank for Euro-denominated transactions between South Korean and Iranian businesses. Pursuant to this authorisation, we processed Euro-denominated settlement transactions involving Iranian companies for a limited period of time. In April 2018, however, we suspended our settlement system for Euro-denominated transactions with Iranian businesses, and as of the date of this Offering Circular, we have no plans to resume operating this system in the future. We are committed to engaging only in lawful activities and complying with all relevant OFAC and EU sanctions but cannot guarantee that actions taken by our employees will not violate such sanctions should we re-engage in settling transactions involving Iranian businesses.

On 8 May 2018, then-U.S. President Donald Trump announced his decision to terminate the participation of the United States in the Joint Comprehensive Plan of Action (the "JCPOA"), pursuant to which certain relief of OFAC Sanctions relating to Iran had been provided. Following two wind-down periods, one ending on 6 August 2018 and the other ending on 4 November 2018, all Iran-related Secondary Sanctions that had been waived pursuant to the JCPOA were re-imposed and on 27 May 2020, then-U.S. Secretary of State Michael Pompeo further announced that the United States would terminate all remaining sanctions waivers allowing for nonproliferation cooperation projects in Iran. On 18 February 2021, the Biden administration formally rescinded the first Trump administration's request that all sanctions lifted in accordance with the JCPOA be re-imposed. However, it remains unclear what the second Trump administration's sanctions policy on Iran will be and how it will impact non-U.S. persons such as the Bank. As a result, non-U.S. persons may face risk of Secondary Sanctions for dealing with certain key sectors of the Iranian economy and/or for providing associated services related to the targeted activities. Thus, our activities related to Iran may subject us to OFAC Sanctions and to potential legal and reputational risks in the future.

You may not be able to enforce a judgement of a foreign court against us.

We are a corporation with limited liability organised under the laws of Korea. Substantially all of our directors and officers and other persons named in this Offering Circular reside in Korea, and all or a significant portion of the assets of our directors and officers and other persons named in this Offering Circular as well as substantially all of our assets are located in Korea. As a result, it may not be possible for investors to effect service of process within the United States or certain other jurisdictions, or to enforce against them or us in the United States or certain other jurisdictions judgements obtained in courts in such jurisdictions based on the civil liability provisions of such jurisdictions. There is doubt as to the enforceability in Korea, either in original actions or in actions for enforcement of judgements of courts in such jurisdictions, of civil liabilities predicated on the laws of such jurisdictions.

Adverse developments affecting the financial services industry, including events or concerns involving liquidity of financial institutions, could adversely affect our business, financial condition or results of operations.

In early 2023, difficulties at several banks in the United States and Europe caused uncertainty for financial services companies, in particular the banking sector, and fear of instability in the global financial system generally, including in Korea. Such difficulties were caused, among others, by rising inflation rates and rapid increases in interest rates, which led to declines in the values of previously issued government securities held by such banks. Although the relevant financial authorities have intervened directly and indirectly in notable cases, there is a risk that other financial institutions could face difficulties, including from contagion disconnected from market fundamentals or for other reasons, and it is unclear what steps regulators would take, if any, in the event of further bank difficulties or continuing (or increasing) market distress. Many financial institutions have experienced volatile stock prices and significant losses in their equity value, and there is concern that depositors could withdraw in the future significant sums from their accounts at these institutions. Any negative perceptions resulting from such developments concerning the soundness of banks, including us, or the banking system generally in Korea could impact where customers choose to maintain deposits, which could lead certain banks in Korea to experience closure or other significant distress.

Actual events involving limited liquidity, defaults, non-performance or other adverse developments that affect the financial services industry generally or financial institutions, transactional counterparties or other companies in the financial services industry, or concerns or rumours about any events of these kinds or other similar risks, may in the future lead to market-wide liquidity problems or increase our risk in various dealings with our counterparties, among others. If, as a result of such developments, any parties with whom we conduct business are unable to access their deposits with a distressed financial institution or any of their other funds loaned to such distressed financial institution, including through financial instruments or lending arrangements, such parties' credit quality, ability to pay their obligations to us, or to enter into new commercial arrangements requiring additional payments to us could be adversely affected. In addition, our ability to access funding sources and other arrangements in amounts adequate to finance or capitalise our current and projected future business operations could also be affected by such disruptions or instability in the financial services industry or financial markets. Furthermore, we could be impacted by current or future negative perceptions and expectations about the prospects for the financial services industry, which could worsen over time and result in fluctuations in, and continued or accelerated volatility of, bank securities. Any of these developments resulting from the general instability of the financial services industry could materially adversely impact our results of operations and financial conditions.

Risks Relating to Korea

Adverse developments in Korea may have adverse effects on us.

We are incorporated in Korea, where most of our assets are located and most of our income is generated. As a result, our performance and successful fulfilment of our operational strategies are necessarily dependent on the overall Korean economy. In 2020, the economic indicators, such as GDP, in Korea and globally deteriorated largely due to the adverse macroeconomic conditions induced by the COVID-19 pandemic. In 2021, such indicators generally improved as stimulus packages were implemented around the world, but inflation continued to rise throughout 2022 and 2023 due to rising energy and commodity costs, labour shortages and ongoing supply chain disruptions.

Adverse conditions and volatility in the worldwide financial markets, fluctuations in oil and commodity prices, supply chain disruptions and the general weakness of the global economy, mainly due to the COVID-19 pandemic, Russia's invasion of Ukraine and ensuing sanctions against Russia, difficulties faced by several banks in the United States and Europe and more recently, the escalation of hostilities in the Middle East following the Israel-Hamas war as well as rapid increases in policy interest rates globally to combat rising inflationary pressures, have contributed to the uncertainty of global economic prospects in general and have adversely affected, and may continue to adversely affect, the Korean economy. See “— *Risks Relating to Our Business — Uncertainties and instability in global market conditions could adversely affect our business, financial condition and results of operations, as well as the value of the Covered Bonds.*” The value of the Won relative to major foreign currencies in general and the U.S. dollar in particular has also fluctuated significantly. Furthermore, as a result of adverse global and Korean economic conditions, there has been volatility in the stock prices of Korean companies in recent years. Future declines in the Korea Composite Stock Price Index (“KOSPI”) and large amounts of sales of Korean securities by foreign investors and subsequent repatriation of the proceeds of such sales may adversely affect the value of the Won, the foreign currency reserves held by financial institutions in

Korea, and the ability of Korean companies to raise capital. Any future deterioration of the Korean or global economy could adversely affect our business, financial condition and results of operations.

Political instability may further adversely affect the Korean economy and cause volatility in the prices of securities of Korean companies. Occasional political upheavals can cause social unrest and economic instability. Events such as declarations of martial law or impeachments have the potential to disrupt the nation's political and economic landscape. These incidents, when they occur, can lead to widespread protests, market volatility and temporary setbacks in various sectors of the economy, potentially affecting businesses operating within the country.

Additional developments that could have an adverse impact on Korea's economy include:

- continued volatility or deterioration in Korea's credit and capital markets;
- declines in consumer confidence and a slowdown in consumer spending in the Korean or global economy;
- rising inflationary pressures leading to increases in the costs of goods and services and a decrease in purchasing power;
- adverse conditions in the economies of countries and regions that are important export markets for Korea, such as China, the United States, Europe and Japan, or in emerging market economies in Asia or elsewhere, including as a result of economic and trade tensions between the United States and China and increased uncertainties in the global financial markets and industry;
- adverse changes or volatility in foreign currency reserve levels, commodity prices (including oil prices), exchange rates (including fluctuation of the U.S. dollar, the Euro or Japanese Yen exchange rates or revaluation of the Chinese Renminbi), interest rates, inflation rates or stock markets;
- deterioration in economic or diplomatic relations between Korea and its trading partners or allies, including deterioration resulting from territorial or trade disputes or disagreements in foreign policy;
- increased sovereign default risk in select countries and the resulting adverse effects on the global financial markets;
- a deterioration in the financial condition or performance of SMEs and other companies in Korea due to the Government's policies to increase minimum wages and limit working hours of employees;
- investigations of large Korean business groups and their senior management for possible misconduct;
- a continuing rise in the level of household debt and increasing delinquencies and credit defaults by retail and SME borrowers in Korea;
- shortages of imported raw materials, natural resources, rare earth minerals or component parts, including semiconductors, due to disruptions to the global supply chain;
- the economic impact of any pending or future free trade agreements or of any changes to existing free trade agreements;
- social and labour unrest;
- substantial fluctuations in the market prices of Korean real estate and uncertainties arising from construction companies' exposures to project financing loans;
- the economic impact of any pending or future free trade agreements or changes in existing free trade agreements;
- a decrease in tax revenue and a substantial increase in the Government's expenditures for fiscal stimulus measures, unemployment compensation and other economic and social programmes that, together, would lead to an increased Government budget deficit;
- financial problems or lack of progress in the restructuring of Korean business groups, other large troubled companies, their suppliers or the financial sector;
- loss of investor confidence arising from corporate accounting irregularities or corporate governance issues at certain Korean companies;
- increases in social expenditures to support an ageing population in Korea or decreases in economic productivity due to the declining population size in Korea;
- geopolitical uncertainty and the risk of further attacks by terrorist groups around the world;

- the occurrence of severe health epidemics in Korea or other parts of the world including the COVID-19 pandemic;
- natural or man-made disasters that have a significant adverse economic or other impact on Korea or its major trading partners;
- political uncertainty or increasing strife among or within political parties in Korea;
- hostilities, political or social tensions involving Russia (including the invasion of Ukraine by Russia and ensuing actions that the United States and other countries have taken or may take in the future) as well as other countries in the Middle East (following the Israel-Hamas war) and North Africa and the resulting adverse effects on the global supply of oil and other natural resources and the global financial markets;
- increased reliance on exports to service foreign currency debts, which could cause friction with Korea's trading partners;
- volatility of the won-dollar exchange rate as internal and external uncertainties, such as from the Russia-Ukraine conflict, continue to grow and preference for safe assets also grow;
- an increase in the level of tensions or an outbreak of hostilities between North Korea and Korea or the United States; and
- changes in financial regulations in Korea.

Escalations in tensions with North Korea could have an adverse effect on us and the market value of the Covered Bonds.

Relations between Korea and North Korea have been tense throughout Korea's modern history. The level of tension between the two Koreas has fluctuated and may increase abruptly as a result of current and future events. In particular, there have been heightened security concerns in recent years stemming from North Korea's nuclear weapon, ballistic missile and satellite programmes as well as its hostile military actions against Korea. Some of the significant incidents in recent years include the following:

- North Korea renounced its obligations under the Nuclear Non-Proliferation Treaty in January 2003 and conducted six rounds of nuclear tests since October 2006, including claimed detonations of hydrogen bombs, which are more powerful than plutonium bombs, and warheads that can be mounted on ballistic missiles. Over the years, North Korea has also conducted a series of ballistic missile tests, including missiles launched from submarines and intercontinental ballistic missiles that it claims can reach the United States mainland. North Korea has increased the frequency of its missile tests in 2022, firing numerous ballistic missiles, including intercontinental ballistic missiles, and in November 2023, successfully launched its first spy satellite. In response, the Government has repeatedly condemned the provocations and flagrant violations of relevant United Nations Security Council resolutions. In February 2016, the Government also closed the inter-Korea Gaeseong Industrial Complex in response to North Korea's fourth nuclear test in January 2016. Internationally, the United Nations Security Council has passed a series of resolutions condemning North Korea's actions and significantly expanding the scope of sanctions applicable to North Korea, in December 2017, in response to North Korea's intercontinental ballistic missile test in November 2017. Over the years, the United States and the European Union have also expanded their sanctions applicable to North Korea.

Since April 2018, North Korea has held a series of bilateral summit meetings with Korea and the United States to discuss peace and denuclearisation of the Korean peninsula. At the end of July 2021, the inter-Korean communication lines were restored for the first time since June 2020, when North Korea severed all inter-Korean governmental communication, but days later, North Korea stopped answering routine calls from Korea in apparent protest of the joint U.S.-Korea military exercises scheduled for August 2021. Although in October 2021, North Korea began answering military and liaison office communication lines again, there can be no assurance that the level of tensions affecting the Korean peninsula will not escalate in the future or that such escalation will not have a material adverse impact on the Korean economy and the Company. Despite some mixed signs of improved relationship between North Korea and Korea as well as the United States in recent years, North Korea has not ceased its missile testing, heightening tensions, and the outlook of discussions with North Korea remains uncertain.

North Korea's economy also faces severe challenges, including severe inflation and food shortages, which may further aggravate social and political tensions within North Korea.

Although bilateral summit meetings were held between Korea and North Korea in April 2018, May 2018 and September 2018 and between the United States and North Korea in June 2018, February 2019 and June 2019, there can be no assurance that the level of tensions affecting the Korean peninsula will not escalate in the future. In addition, reunification of Korea and North Korea may suddenly occur in the future, which would entail significant economic commitment and expenditure by Korea that may outweigh any resulting economic benefits of reunification. Any further increase in tension or uncertainty relating to the military, political or economic stability in the Korean peninsula, including a breakdown of diplomatic negotiations over the North Korean nuclear programme, occurrence of military hostilities, heightened concerns about the stability of North Korea's political leadership or its actual collapse, a leadership crisis, a breakdown of high-level contacts or accelerated reunification could have a material adverse effect on our business, financial condition and results of operations, as well as the credit rating of Korea, us or the Covered Bonds.

We are generally subject to Korean accounting, regulatory, corporate governance and disclosure standards, which differ from those applicable to banks in other countries.

Banks in Korea, including us, are subject to Korean accounting standards and disclosure requirements, which may differ in significant respects from those applicable to banks in certain other countries, including the United States. Our financial statements are prepared in accordance with K-IFRS, which may differ in certain respects from IFRS applied in other countries. In addition, we are subject to corporate governance standards applicable to Korean banks, which differ in many respects from standards applicable in other countries. There may also be less publicly available information about Korean banks, such as us, than is regularly made available by public or non-public companies in other countries. Such differences in accounting and corporate governance standards as well as less available public information could result in corporate governance practices or disclosures that are perceived as less than satisfactory by investors in certain countries.

Risks Relating to the Covered Bonds

The Covered Bonds may not be a suitable investment for all investors.

Each potential investor in the Covered Bonds must determine the suitability of that investment in light of its own circumstances. In particular, each potential investor should:

- have sufficient knowledge and experience to make a meaningful evaluation of the relevant Covered Bonds, the merits and risks of investing in the relevant Covered Bonds and the information contained or incorporated by reference in this Offering Circular or any applicable supplement to this Offering Circular;
- have access to, and knowledge of, appropriate analytical tools to evaluate, in the context of its particular financial situation, an investment in the relevant Covered Bonds and the impact such investment will have on its overall investment portfolio;
- have sufficient financial resources and liquidity to bear all of the risks of an investment in the Covered Bonds, including Covered Bonds with principal or interest payable in one or more currencies, or where the currency for principal or interest payments is different from the currency in which such potential investor's financial activities are principally denominated;
- understand thoroughly the terms of the relevant Covered Bonds and be familiar with the behaviour of any relevant indices and financial markets; and
- be able to evaluate (either alone or with the help of a financial adviser) possible scenarios for economic, interest rate and other factors that may affect its investment and its ability to bear the applicable risks.

The Covered Bonds are complex financial instruments and such instruments may be purchased as a way to reduce risk or enhance yield with an understood, measured, appropriate addition of risk to their overall portfolios. A potential investor should not invest in Covered Bonds which are complex financial instruments unless it has the expertise (either alone or with the assistance of a financial adviser) to evaluate how the Covered Bonds will perform under changing conditions, the resulting effects on the value of such Covered Bonds and the impact this investment will have on the potential investor's overall investment portfolio.

Legal investment considerations may restrict certain investments.

The investment activities of certain investors are subject to legal investment laws and regulations, or review or regulation by certain authorities. Each potential investor should consult its legal advisers to determine whether and to what extent (i) Covered Bonds are legal investments for it, (ii) Covered Bonds can be used as collateral for

various types of borrowing and (iii) other restrictions apply to its purchase or pledge of any Covered Bonds. Financial institutions should consult their legal advisers or the appropriate regulators to determine the appropriate treatment of the Covered Bonds under any applicable risk-based capital or similar rules.

The Covered Bonds are our obligations only.

The Covered Bonds will constitute our obligations which have the benefit of a statutory preference under the Korean Covered Bond Laws on the Cover Pool. An investment in the Covered Bonds involves a reliance on our creditworthiness. The Covered Bonds are not guaranteed by any member of the Hana Financial Group or any other person. In particular, the Covered Bonds will not represent an obligation or be the responsibility of any of the Arranger, the Dealers, the Trustee or any other party to the Transaction Documents, their officers, members, directors, employees, security holders or incorporators, other than us.

In addition, an investment in the Covered Bonds involves the risk that subsequent changes in the actual or our perceived creditworthiness may adversely affect the market value or ratings of the relevant Covered Bonds.

The Covered Bonds issued under the Programme that have different terms will rank pari passu, and an Issuer Event of Default in respect of one series will trigger an Issuer Event of Default for all Series.

Save in respect of the first issue of Covered Bonds, Covered Bonds issued under the Programme will either be fungible with an existing Series of Covered Bonds or have different terms from an existing Series of Covered Bonds (in which case they will constitute a new Series). We may also issue unlisted Covered Bonds and/or Covered Bonds which are not admitted to trading on any regulated or unregulated market. As a result, holders of the Covered Bonds issued pursuant to this Offering Circular should be aware that their claims will rank *pari passu* with holders of Covered Bonds which may be issued in a manner other than pursuant to this Offering Circular in respect of the Cover Pool assets.

If an Issuer Event of Default occurs and an Issuer EOD Notice is served on us in respect of a particular Series of Covered Bonds, there will be an Issuer Event of Default in respect of all Series. If a Covered Bond Event of Default occurs and an Acceleration Notice is served on us, the Covered Bonds of all Series outstanding will accelerate. In order to ensure that any further issue of Covered Bonds under the Programme does not adversely affect the existing Covered Bondholders:

- no further Covered Bonds may be issued under the Programme unless we have certified to the Trustee that the Asset Coverage Test is satisfied on the previous Interest Calculation Date and will continue to be satisfied after the issue of any further Covered Bonds; and
- no further Covered Bonds may be issued under the Programme unless we have certified to the Trustee that no Issuer Event of Default has occurred or will occur as a result of the issuance of further Covered Bonds.

However, there is no assurance that the issue of a further Series of Covered Bonds would not be ultimately adverse to the interests of any existing holder of Covered Bonds, because of, for instance, the reduced level of collateralisation in the Cover Pool.

Change of law may affect the Covered Bonds.

The Terms and Conditions of the Covered Bonds are based on English law (except that (i) Condition 3 (*Status*) will be governed by, and construed in accordance with, Korean law and (ii) the N Bonds will be governed by, and construed in accordance with, German law) in effect as of the date of issue of the relevant Covered Bonds. The Korean Account Bank Agreement and the Asset Monitor Agreement will be governed by, and construed in accordance with, Korean law; the Hong Kong Account Bank Agreement will be governed by, and construed in accordance with, Hong Kong law; while all other Transaction Documents will be governed by, and construed in accordance with, English law. No assurance can be given as to the impact of any possible judicial decisions or changes to law, administrative practise or tax treatment in the United Kingdom, Hong Kong or Korea after the date of issue of the relevant Covered Bonds.

The Korean Covered Bond Act entered into force in April 2014 and, as of the date of this Offering Circular, there are no precedents as to how the provisions will be interpreted by Korean courts or other judicial authorities. It is uncertain how the Korean Covered Bond Laws will be interpreted or whether changes or amendments will be made to it which will affect Covered Bonds issued under the Programme.

Ratings of the Covered Bonds may be changed at any time and may adversely affect the fair market value of the Covered Bonds.

The Covered Bonds are expected to be rated “AAA” by S&P and “AAA” by Fitch upon issuance. The ratings address the likelihood of full and timely payment to the Covered Bondholders of all payments of interest on the Covered Bonds on each Interest Payment Date and the full and timely payment of principal by the Maturity Date (or, if an Extended Maturity Date is specified, such Extended Maturity Date). Any rating agency may lower its ratings or withdraw its rating if, in the sole judgement of the rating agency, the credit quality of the Covered Bonds has declined or is in question. If any rating assigned to the Covered Bonds is lowered or withdrawn, the market value of the Covered Bonds may be reduced. A credit rating is not a recommendation to purchase, hold or sell securities and may be subject to revision, suspension or withdrawal at any time.

A credit rating may not reflect the potential impact of all risks related to the structure, market, additional factors discussed above, and other factors that may affect the value of the Covered Bonds. In addition, rating agencies may change their rating methodology from time to time, potentially making it more difficult to maintain a certain credit rating.

If the ratings initially assigned to the Covered Bonds are subsequently lowered or withdrawn for any reason, no person or entity will be obligated to provide any additional credit enhancement with respect to the Covered Bonds. Any reduction or withdrawal of a rating may have an adverse effect on the liquidity and market price of the Covered Bonds. Any reduction or withdrawal of a rating will not constitute an event of default with respect to the Covered Bonds or an event requiring us to redeem any Covered Bonds. Following the withdrawal of a rating, there is no obligation on any party to procure the re-assessment of a rating to the Covered Bonds.

We are required under the Korean Covered Bond Laws to maintain at all times a total value of the Cover Pool that exceeds 105% of the aggregate outstanding principal amount of the Covered Bonds and any interest accrued on such Covered Bonds. However, the ratings of the Covered Bonds (if applicable) are based on an assumption that we maintain a minimum level of overcollateralisation determined in accordance with the Asset Coverage Test, which exceeds the requirements under the Korean Covered Bond Laws. The level of overcollateralisation that is required for maintaining the ratings of the Covered Bonds (if applicable) may change from time to time. If an Asset Coverage Test Breach Notice has been served on us and has not been revoked, we may decide to add further Liquid Assets to the Cover Pool in order to cure the Asset Coverage Test breach on or before the second Calculation Date after service of such Asset Coverage Test Breach Notice and to avoid an Issuer Event of Default. However, there is no obligation on us to do so or to maintain a particular rating with respect to the Covered Bonds.

European regulated investors are restricted from using credit ratings for regulatory purposes unless issued or endorsed by a credit rating agency registered under or certified in accordance with the CRA Regulation.

In general, European regulated investors are restricted under Regulation (EC) No. 1060/2009, as amended (the “**CRA Regulation**”) from using credit ratings for regulatory purposes, unless such ratings are issued by a credit rating agency established in the European Union and registered under the CRA Regulation (and such registration has not been withdrawn or suspended), subject to transitional provisions that apply in certain circumstances whilst the registration application is pending. Such general restriction will also apply in the case of credit ratings issued by non-European Union credit rating agencies, unless the relevant credit ratings are endorsed by a credit rating agency registered in the European Union or the relevant non-European Union rating agency is certified in accordance with the CRA Regulation (and such endorsement action or certification, as the case may be, has not been withdrawn or suspended). The list of registered and certified rating agencies published by the European Securities and Markets Authority (the “**ESMA**”) on its website in accordance with the CRA Regulation is not conclusive evidence of the status of the relevant rating agency included in such list, as there may be delays between certain supervisory measures being taken against a relevant rating agency and the publication of the updated ESMA list. Certain information with respect to the credit rating agencies and ratings referred to in this Offering Circular, is set out in “*Summary of the Programme — Ratings*” of this Offering Circular.

The Covered Bonds are subject to transfer restrictions.

The Covered Bonds will not be registered under the Securities Act or any state securities laws and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons, except to QIBs in reliance on the exemption provided by Rule 144A, to certain persons in offshore transactions in reliance on Regulation S, or pursuant to another exemption from, or in another transaction not subject to, the registration

requirements of the Securities Act and in accordance with applicable state securities laws. For a further discussion of the transfer restrictions applicable to the Covered Bonds, see “*Subscription and Sale and Transfer and Selling Restrictions.*”

The Covered Bonds may have limited liquidity.

The Covered Bonds may have no established trading market when issued, and one may never develop. If a market does develop, it may not be liquid. No assurance can be given as to the liquidity of, or the development and continuation of an active trading market for, the Covered Bonds. If an active trading market for the Covered Bonds does not develop or is not maintained, the market price and liquidity of the Covered Bonds may be adversely affected. If such a market were to develop, the Covered Bonds could trade at prices that may be higher or lower than the price at which the Covered Bonds are issued depending on many factors, including:

- prevailing interest rates;
- our results of operations, financial condition and credit ratings;
- political and economic developments in and affecting Korea;
- the market conditions for similar securities; and
- the financial condition and stability of the Korean financial sector.

Therefore, investors may not be able to sell their Covered Bonds easily or at prices that will provide them with a yield comparable to similar investments that have a developed secondary market. This is particularly the case for Covered Bonds that are especially sensitive to interest rate, currency or market risks, are designed for specific investment objectives or strategies or have been structured to meet the investment requirements of limited categories of investors. These types of Covered Bonds generally would have a more limited secondary market and more price volatility than conventional debt securities. Illiquidity may have a severely adverse effect on the market value of the Covered Bonds.

The Covered Bonds may be represented by Global Covered Bonds or Global Certificates and holders of a beneficial interest in a Global Covered Bond or Global Certificate must rely on the procedures of the relevant Clearing System(s).

Covered Bonds issued under the Programme may be represented by one or more Global Covered Bonds or Global Certificates. Such Global Covered Bonds or Global Certificates will be deposited with the Common Depositary for Euroclear and Clearstream and/or DTC (each of Euroclear, Clearstream, DTC, a “**Clearing System**”). Except in the circumstances described in the relevant Global Covered Bond or Global Certificate, investors will not be entitled to receive Definitive Covered Bonds. The relevant Clearing System(s) will maintain records of the beneficial interests in the Global Covered Bonds and Certificates. While the Covered Bonds are represented by one or more Global Covered Bonds or Global Certificates, investors will be able to trade their beneficial interests only through the Clearing Systems.

While the Covered Bonds are represented by one or more Global Covered Bonds or Global Certificates, we will discharge our payment obligations under the Covered Bonds by making payments to the relevant Clearing System for distribution to their account holders.

A holder of a beneficial interest in a Global Covered Bond or Global Certificate must rely on the procedures of the relevant Clearing System(s) to receive payments under the relevant Covered Bonds. We have no responsibility or liability for the records relating to, or payments made in respect of, beneficial interests in the Global Covered Bonds or Global Certificates.

The Trustee’s powers may affect the interests of the Covered Bondholders, including in case of a notice of an Issuer Event of Default.

In the exercise of its powers, trusts, authorities and discretions, the Trustee shall only have regard to the interests of the Covered Bondholders and may not act on our behalf. If, in connection with the exercise of its powers, trusts, authorities or discretions, the Trustee is of the opinion that an Issuer Event of Default has occurred and that the interests of the Covered Bondholders would be materially prejudiced thereby, the Trustee has discretion to give notice to the Issuer of an Issuer Event of Default on its own accord (but is not obliged to do so), and if directed to do so by Covered Bondholders, will only give such notice with the approval of Covered Bondholders

by Extraordinary Resolution passed by all series of Covered Bonds then outstanding voting as one class, or by a direction in writing of such Covered Bondholders of at least 25% of the outstanding principal amount of Covered Bonds then outstanding.

The Trustee may agree to modifications to the Transaction Documents or waive breaches without the Covered Bondholders' prior consent.

Pursuant to the terms of the Trust Deed, the Trustee may, without the consent of any of the Covered Bondholders, concur with any person in making any modification to any of the provisions of the Transaction Documents (including the Conditions of the Covered Bonds):

- provided that (save in relation to a Series Reserved Matter or a modification requiring the consent of the Covered Bondholders under the Korean Covered Bond Laws) the Trustee is of the opinion that such modification will not be materially prejudicial to the interests of any of the Covered Bondholders of any Series; or
- which, in the opinion of the Trustee, is of a formal, minor or technical nature or made to correct a manifest error or to comply with any mandatory provision of law.

Pursuant to the terms of the Trust Deed, the Trustee may also, without the consent of any of the Covered Bondholders, waive or authorise any breach or proposed breach by us or any other person of any of the provisions of the Transaction Documents (including the Conditions) or determine that an Issuer Event of Default, a Potential Issuer Event of Default, a Potential Covered Bond Event of Default or a Covered Bond Event of Default shall not be treated as such, provided that:

- the Trustee is of the opinion that such waiver, authorisation or determination will not be materially prejudicial to the interests of any of the Covered Bondholders of any Series; and
- the Trustee shall not so waive, authorise or determine in contravention of an express direction given by an Extraordinary Resolution or a request made pursuant to Condition 11 (*Meetings of Covered Bondholders, Modification, Waiver and Substitution*).

Prior to the Trustee agreeing to any such modification, waiver, authorisation or determination, the Trustee must have received a legal opinion from a reputable law firm in Korea confirming that in respect of the relevant modification, waiver, authorisation or determination either (a) no consent is required from the FSC, the Ministry of Economy and Finance (the “MOEF”) and/or any other relevant Korean authority; or that (b) any and all consents which are required from the FSC, the MOEF and any other relevant Korean authority have been received.

Notwithstanding the above, the Trustee shall, without the consent of the Covered Bondholders, but subject to the other applicable terms of the Trust Deed, be obliged to concur with us in making any modifications (other than a modification relating to a Series Reserved Matter or a modification requiring the consent of the Covered Bondholders under the Korean Covered Bond Laws) to the Trust Deed, the Conditions or any of the Transaction Documents to which it is a party or entering into any new documents, whether in its existing capacity as Trustee or in a new capacity, that we consider necessary:

- for the purpose of adding any additional Rating Agency or replacing any existing Rating Agency with a replacement Rating Agency or removing any Rating Agency in relation to the Programme and/or maintaining the current rating and complying with, or implementing or reflecting, any change in the criteria of one or more of the Rating Agencies which may be applicable from time to time to maintain that rating, provided that we certify in writing to the Trustee that such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect and if applicable, is necessary to comply with such criteria (including to avoid a downgrade, withdrawal or suspension of the then current rating assigned by each Rating Agency to any Series of Covered Bonds);
- for the purpose of enabling any Series of Covered Bonds to achieve a S&P rating of “AAA” and/or a Fitch rating of “AAA” and/or equivalent rating of any replacement Rating Agency, provided that we certify in writing to the Trustee that such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect and is necessary to achieve such a rating;
- for the purpose of making any modification to a Transaction Document or entering into new documents proposed by us in order (i) for a Swap Provider or an Account Bank to remain eligible to perform its role in such capacity in conformity with such criteria and/or (ii) for a Swap Provider or an Account Bank to avoid

taking action which it would otherwise be required to take to enable it to continue performing such role (including, without limitation, posting collateral or advancing funds), provided that we certify in writing to the Trustee that such modification or entry into new documents is necessary for the purposes described in (i) and (ii) of this paragraph;

- for the purpose of enabling the Covered Bonds issued under the Programme to qualify or to continue to qualify as regulated covered bonds under the Korean Covered Bond Laws and which we certify in writing to the Trustee are necessary to comply with the Korean Covered Bond Laws and are required solely for such purpose and have been drafted solely to such effect or, as the case may be, are solely to implement and reflect the Korean Covered Bond Laws;
- for the purpose of enabling the Covered Bonds issued under the Programme or any relevant Transaction Party to comply with any mandatory provisions of law, provided that we certify to the Trustee in writing (such certificate to be signed by our Authorised Signatory) that such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect;
- for the purpose of enabling the Covered Bonds to be (or to remain) listed on the SGX-ST, provided that we certify to the Trustee in writing (such certificate to be signed by our Authorised Signatory) that such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect;
- for the purpose of enabling the Covered Bonds issued under the Programme to qualify or to continue to qualify under any equivalence regime introduced for third-country credit institutions issuing covered bonds and for investors in those covered bonds as referred to in Article 31 of Directive (EU) 2019/2162 of the European Parliament and of the Council of 27 November 2019 on the issue of covered bonds and covered bond public supervision and amending Directives 2009/65/EC and 2014/59/EU (“EU Covered Bond Directive”) and which the Issuer certifies in writing to the Trustee are necessary to comply with any such equivalence regime in relation to the EU Covered Bond Directive and/or Regulation (EU) 2019/2160 of the European Parliament and of the Council of 27 November 2019 amending Regulation (EU) No 575/2013 as regards exposures in the form of Covered Bonds, and are required solely for such purpose and have been drafted solely to such effect;
- for the purpose of enabling us to issue Covered Bonds in the form of N Bonds under the Programme on the following terms: (i) the terms and conditions of the N Bonds are to be governed by German law (save for Condition 3 (*Status*), which shall be governed by Korean law); (ii) the N Bonds will not be listed or traded on any stock exchange, but will be issued in registered form on a private placement basis to eligible investors; and (iii) the N Bonds will constitute “Covered Bonds” issued under the Programme, ranking *pari passu* with all other Covered Bonds issued from time to time; or
- in order to enable us and/or the Swap Provider (or any potential Swap Provider), as the case may be, to comply with: (i) any obligation which applies to it under Articles 9, 10 and 11 of Regulation (EU) 648/2012 of the European Parliament and of the Council on OTC derivatives, central counterparties and trade repositories dated 4 July 2012 (including, without limitation, any associated regulatory technical standards and advice, guidance or recommendations from relevant supervisory regulators) (EMIR); (ii) any other obligation which applies to it under EMIR; or (iii) any other obligation under any applicable laws or regulations that require parties to uncleared over-the-counter derivative transactions to report such transactions to a trade repository and/or to exchange collateral in the form of initial margin and/or variation margin, and any modification in connection with sub-paragraphs (i) to (iii) of this paragraph may include (and without limitation) modifications to the provisions set out in the Transaction Documents regarding payments using assets in the Cover Pool, withdrawal of cash from the Cover Pool, opening of additional Cover Pool Accounts by us and the priority of payments in order to allow payments in respect of collateral by us (or, following the service of an Issuer EOD Notice, the Asset Monitor) to the Swap Provider in priority to amounts payable to the Covered Bondholders or Couponholders (but, for the avoidance of doubt, the Trustee is not obliged to agree to modifications to allow such payments to be made *pari passu* or in priority to payments to the Trustee in the priority of payments provisions), provided that we (or, in the case of the last bullet point above, we, the Swap Provider and/or the potential Swap Provider, as appropriate) certify to the Trustee in writing that (a) such modification or entry into new documents is required solely for such purpose and has been drafted solely to such effect and (b) we have received advice from a reputable law firm in Korea that in respect of the relevant modification or entry into new documents either (x) no consent is required from the FSC, the MOEF and any other relevant Korean authority (other than an amendment filing to the Covered Bond Issuance Plan and acceptance thereof by the FSC); or that (y) any and all consents which are required from the FSC, the MOEF and any other relevant Korean authority have been received from the FSC, the MOEF and any other relevant Korean authority and are in full force and effect.

However, in no case shall the Trustee be obliged to agree to any modification which, in its sole opinion, would have the effect of (a) exposing the Trustee to any liability against which it has not been indemnified and/or secured and/or pre-funded to its satisfaction or (b) increasing the obligations or duties, or decreasing the rights or protection, of the Trustee in the Transaction Documents and/or the Conditions of the Covered Bonds.

Covered Bonds are subject to optional redemption by us.

An optional redemption feature is likely to limit the market value of Covered Bonds. During any period when we may elect to redeem Covered Bonds, the market value of such Covered Bonds generally will not rise substantially above the price at which they can be redeemed. This also may be true prior to any redemption period. We may be expected to redeem Covered Bonds when our cost of borrowing is lower than the interest rate on the Covered Bonds. At those times, an investor generally would not be able to reinvest the redemption proceeds at an effective interest rate as high as the interest rate on the Covered Bonds being redeemed and may only be able to do so at a significantly lower rate. Potential investors should consider reinvestment risk in light of other investments available at that time.

We may issue Fixed/Floating Rate Covered Bonds.

Fixed/Floating Rate Covered Bonds may bear interest at a rate that converts from a fixed rate to a floating rate, or from a floating rate to a fixed rate. Where we have the right to effect such a conversion, this will affect the secondary market and the market value of such Covered Bonds since we may be expected to convert the rate when we are likely to produce a lower overall cost of borrowing. If we convert from a fixed rate to a floating rate in such circumstances, the spread on the Fixed/Floating Rate Covered Bonds may be less favourable than the then prevailing spreads on comparable Floating Rate Covered Bonds tied to the same reference rate. In addition, the new floating rate at any time may be lower than the rates on the rest of the Covered Bonds. If we convert from a floating rate to a fixed rate in such circumstances, the fixed rate may be lower than the then prevailing rates on the rest of the Covered Bonds.

Fixed Rate Covered Bonds are subject to interest rate risks.

Investment in Fixed Rate Covered Bonds involves the risk that if market interest rates subsequently increase above the rate paid on the Fixed Rate Covered Bonds, this will adversely affect the value of the Fixed Rate Covered Bonds.

Covered Bonds issued at a substantial discount or premium are subject to greater price volatility.

The market values of securities issued at a substantial discount or premium from their principal amount tend to fluctuate more in relation to general changes in interest rates than do prices for more conventional interest-bearing securities. Generally, the longer the remaining term of such securities, the greater the price volatility as compared to more conventional interest-bearing securities with comparable maturities.

There may be extendable obligations under the Covered Bonds.

The applicable Pricing Supplement may provide that an Extended Maturity Date (as defined below) applies to a Series of Covered Bonds.

If an Extended Maturity Date so applies and if we fail to redeem all of the relevant Series of Covered Bonds in full on the Maturity Date or within 10 days thereafter, the maturity of the Covered Bonds and the date on which such Covered Bonds will be due and payable for the purposes of the Conditions will be automatically extended up to but no later than the Extended Maturity Date, subject as otherwise provided in the applicable Pricing Supplement. We (or, if an Issuer EOD Notice has been served on us, the Asset Monitor on our behalf) shall give notice to the holders of Covered Bonds and to the Trustee, the Paying Agents and the Rating Agencies in writing at least five Business Days prior to the Maturity Date of the Series of Covered Bonds confirming whether or not we intend to redeem all or any of the principal amount outstanding in respect of such Series of Covered Bonds on the Maturity Date, or within 10 days thereafter. In that event, we may redeem all or part of the principal amount outstanding of the Covered Bonds on an Interest Payment Date falling in any month after the Maturity Date, up to and including the Extended Maturity Date or as otherwise provided for in the applicable Pricing Supplement. In that event also, the Covered Bonds will bear interest on the principal amount outstanding of the Covered Bonds in accordance with the applicable Pricing Supplement.

The extension of the maturity of the principal amount outstanding of the Covered Bonds from the Maturity Date to the Extended Maturity Date will constitute an Issuer Event of Default and a Cause of Disposal Event.

The Covered Bonds may be treated as issued with original issue discount for U.S. federal income tax purposes.

The Covered Bonds may be issued with original issue discount (“OID”) for U.S. federal income tax purposes. If the stated principal amount of the Covered Bonds exceeds their “issue price” by an amount that is equal to or greater than the statutory de minimis amount, the Covered Bonds will be treated as issued with OID for U.S. federal income tax purposes in an amount equal to such difference. If the Covered Bonds are treated as issued with OID for U.S. federal income tax purposes, U.S. investors in such Covered Bonds will generally be required to include OID in their gross income as it accrues in advance of the receipt of cash payments attributable to such income using the constant yield method. See “*Taxation — United States — Original Issue Discount.*”

Priority Payment Right Holders may rank ahead of the Covered Bondholders.

Pursuant to the Establishment Deed, the Master Definitions Agreement and the Swap Agreements, each Priority Payment Right Holder agrees that the Asset Monitor will apply the Cover Pool assets in accordance with the Cover Pool Priority of Payments, which sets out the order in which the Cover Pool assets will be applied. The Cover Pool Priority of Payments provides that the payment claims of certain Priority Payment Right Holders will rank ahead of the claims of other Priority Payment Right Holders following the service of an Issuer EOD Notice and/or the service of an Acceleration Notice on us. In particular, the claims of the Trustee, Agents, Asset Monitor, Account Banks and, in certain cases, termination payments due to Swap Providers will rank ahead of the claims of the Covered Bondholders.

The Covered Bonds with a later Maturity Date or an Extended Maturity Date are subject to more risks.

Under the Cover Pool Priority of Payments, later maturing Series of Covered Bonds (including those in respect of which the repayment of the principal amount outstanding has been extended up to such Extended Maturity Date) may carry more risk than other Series of Covered Bonds with an earlier Maturity Date or Extended Maturity Date, since any overcollateralisation in the Cover Pool will be applied to redeem earlier maturing Series of Covered Bonds as they become due and payable until the service of an Acceleration Notice, following which the amounts outstanding under all Series of Covered Bonds will accelerate and become due and payable and any shortfall in the Cover Pool assets will be divided amongst all such Series of Covered Bonds on a *pro rata* and *pari passu* basis.

Certain decisions of the Covered Bondholders must be taken at Programme level.

Any Extraordinary Resolution to direct the Trustee to serve an Issuer EOD Notice following an Issuer Event of Default or to serve an Acceleration Notice following a Covered Bond Event of Default and any direction to the Trustee to take any enforcement action or to appoint a substitute issuer or to replace the Trustee, in each case must be passed at a single meeting of all the Covered Bondholders of all Series then outstanding voting as one class. Therefore, the holders of a single Series of Covered Bonds will not be able to separately direct the Trustee.

Investors who purchase Covered Bonds in denominations that are an integral multiple of the Specified Denomination may be adversely affected if Definitive Covered Bonds are subsequently required to be issued.

In relation to any issue of Covered Bonds that have denominations consisting of a minimum specified denomination (“**Specified Denomination**”) plus one or more higher integral multiples of another smaller amount, it is possible that such Covered Bonds may be traded in amounts that are not integral multiples of such minimum Specified Denomination. In such a case, a Covered Bondholder who, as a result of trading such amounts, holds an amount which (after deducting integral multiples of such minimum Specified Denomination) is less than the minimum Specified Denomination in his account with the relevant clearing system at the relevant time may not receive a Definitive Covered Bond in respect of such holding (should Definitive Covered Bonds be printed) and would need to purchase a principal amount of Covered Bonds such that its holding amounts to a Specified Denomination. If such Covered Bonds in definitive form are issued, Covered Bondholders should be aware that Definitive Covered Bonds that have a denomination that is not an integral multiple of the minimum Specified Denomination may be illiquid and difficult to trade.

Covered Bonds are subject to exchange rate risks and exchange controls.

We will pay principal and interest on the Covered Bonds in the Specified Currency. This presents certain risks relating to currency conversions if an investor’s financial activities are denominated principally in a currency or

currency unit (the “**Investor’s Currency**”) other than the Specified Currency. These include the risk that exchange rates may significantly change (including changes due to devaluation of the Specified Currency or revaluation of the Investor’s Currency) and the risk that authorities with jurisdiction over the Investor’s Currency may impose or modify exchange controls. An appreciation in the value of the Investor’s Currency relative to the Specified Currency would decrease (i) the Investor’s Currency-equivalent yield on the Covered Bonds, (ii) the Investor’s Currency-equivalent value of the principal payable on the Covered Bonds and (iii) the Investor’s Currency-equivalent market value of the Covered Bonds.

Government and monetary authorities may impose (as some have done in the past) exchange controls that could adversely affect an applicable exchange rate. As a result, investors may receive less interest or principal than expected, or no interest or principal.

There may be potential conflicts of interest in connection with the Programme.

We have a number of roles pursuant to the Programme including, but not limited to, the roles of Issuer and Account Bank, and we also service the Mortgage Loans in the Cover Pool. In respect of the Programme, we will act in our own interest subject to compliance with the Transaction Documents. Such actions by us may not be in the best interests of, and may adversely affect, the holders of the Covered Bonds, including by negatively impacting the ability for us to pay to the holders of the Covered Bonds any principal and/or interest due on the Covered Bonds. Subject to compliance with the Transaction Documents, we may act in our own interest without incurring any liability to the holders of any Series or Tranche of Covered Bonds. We rely on third parties to perform our obligations under the Covered Bonds. We have entered into agreements with a number of third parties who have agreed to perform services for us. In particular, but without limitation, the Asset Monitor has been appointed to calculate and/or monitor compliance with the Asset Coverage Test and the Amortisation Test and to provide services in respect of the management, maintenance and disposal of the Cover Pool following the occurrence of a Cause of Disposal Event; and following an Account Bank Termination Event in respect of us as Account Bank, the Cover Pool Cash Accounts will be held with a third party Account Bank. If a Servicer Replacement Event occurs, then the Asset Monitor may, as it deems appropriate in its sole discretion to ensure the continued servicing of the Mortgage Loans or to maintain the ratings of the Covered Bonds, request us to jointly appoint a Replacement Servicer to service the Mortgage Loans in the Cover Pool (or the Asset Monitor may appoint a Replacement Servicer on its own if we fail to take the requested action within a specified period). The ability of the Asset Monitor, any of its Delegates or any Replacement Servicer to fully perform the required services would depend, among other things, on its access to information, software and records available at the time. The Transaction Account Bank, Reserve Account Banks and Custodian Bank have been appointed to receive and hold monies in the Cover Pool Accounts and to operate and maintain those accounts in accordance with the Korean Covered Bond Laws, which includes segregating the amounts received from our other assets.

In the event that any of those parties fails to perform its obligations under the relevant agreement to which it is a party, the realisable value of the Cover Pool or any part thereof or pending such realisation (if the Cover Pool or any part thereof cannot be sold) and our ability to make payments under the Covered Bonds may be adversely affected. For instance, if the Asset Monitor (or any Replacement Servicer or Delegate appointed by it) has failed to service the Mortgage Loans adequately, this may lead to higher incidents of non-payment or default by Borrowers. We are also reliant on the Swap Providers to provide us with the funds matching our obligations under the Covered Bonds, as described below.

In the event of a termination of the Asset Monitor’s or any third party Account Bank’s appointment, any delay or inability to appoint a substitute Asset Monitor or replacement Account Bank that has the requisite Transaction Account Bank Required Ratings or Reserve Account Bank Required Ratings or Custodian Bank Required Ratings may affect the realisable value of the Cover Pool or any part thereof and/or our ability to make payments under the Covered Bonds. Covered Bondholders will have no right to consent to or approve of any actions taken by the Asset Monitor under the Asset Monitor Agreement. In addition, the terms agreed with the replacement entity may not be as favourable as those agreed with the original party pursuant to the Transaction Documents.

The Trustee is not responsible for monitoring compliance with, nor the monitoring of, the Asset Coverage Test, the Pre-Maturity Test, the Amortisation Test or any other test, nor supervising the performance by any other party of its obligations under any Transaction Document.

We rely on third parties to perform our obligations under the Covered Bonds.

We have entered into agreements with a number of third parties who have agreed to perform services for us. In particular, but without limitation, the Asset Monitor has been appointed to calculate and/or monitor compliance

with the Asset Coverage Test and the Amortisation Test and to provide services in respect of the management, maintenance and disposal of the Cover Pool following the occurrence of a Cause of Disposal Event; and following an Account Bank Termination Event in respect of us as Account Bank, the Cover Pool Cash Accounts will be held with a third party Account Bank. If a Servicer Replacement Event occurs, then the Asset Monitor may, as it deems appropriate in its sole discretion to ensure the continued servicing of the Mortgage Loans or to maintain the ratings of the Covered Bonds, request us to jointly appoint a Replacement Servicer to service the Mortgage Loans in the Cover Pool (or the Asset Monitor may appoint a Replacement Servicer on its own if we fail to take the requested action within a specified period). The ability of the Asset Monitor, any of its Delegates or any Replacement Servicer to fully perform the required services would depend, among other things, on its access to information, software and records available at the time. The Transaction Account Bank and Reserve Account Bank have been appointed to receive and hold monies in the Cover Pool Accounts and to operate and maintain those accounts in accordance with the Korean Covered Bond Laws, which includes segregating the amounts received from our other assets. In the event that any of those parties fails to perform its obligations under the relevant agreement to which it is a party, the realisable value of the Cover Pool or any part thereof or pending such realisation (if the Cover Pool or any part thereof cannot be sold) and our ability to make payments under the Covered Bonds may be adversely affected. For instance, if the Asset Monitor (or any Replacement Servicer or Delegate appointed by it) has failed to service the Mortgage Loans adequately, this may lead to higher incidents of non-payment or default by Borrowers. We are also reliant on the Swap Providers to provide us with the funds matching our obligations under the Covered Bonds, as described below.

In the event of a termination of the Asset Monitor's or any third party Account Bank's appointment, any delay or inability to appoint a substitute Asset Monitor or replacement Account Bank that has the requisite Transaction Account Bank Required Rating or Reserve Account Bank Required Rating may affect the realisable value of the Cover Pool or any part thereof and/or our ability to make payments under the Covered Bonds. Covered Bondholders will have no right to consent to or approve of any actions taken by the Asset Monitor under the Asset Monitor Agreement. In addition, the terms agreed with the replacement entity may not be as favourable as those agreed with the original party pursuant to the Transaction Documents.

The Trustee is not responsible for monitoring compliance with, nor the monitoring of, the Asset Coverage Test, the Pre-Maturity Test, the Amortisation Test or any other test, nor supervising the performance by any other party of its obligations under any Transaction Document.

If a Swap terminates, our ability to make payments under the Transaction Documents may be impaired.

We will enter into one or more Swaps to hedge against currency and/or interest rate risks in respect of amounts received and payable by us under the Covered Bonds (in each case prior to the termination of the Swap in accordance with the provisions of the relevant Swap Agreement). See "*Summary of the Principal Documents — Swap Agreements*" for a more detailed description of the Swap and Swap Agreements. There can be no assurance that any Swap entered into by us will fully hedge all currency risks to which we are exposed in connection with any issuance of Covered Bonds.

If we fail to make timely payments of amounts due under any Swap Agreement entered into with a Swap Provider (subject to any applicable grace period), then we will have defaulted under that Swap Agreement and the Swap(s) entered into with the relevant Swap Provider may be terminated. It should also be noted that if we fail to pay an amount under a Swap Agreement on the due date for payment (subject to any applicable grace period), an Issuer Event of Default will occur under the Conditions.

There are a number of other circumstances in which a Swap may terminate. Certain of these other circumstances are summarised under "*Summary of the Principal Documents — Swap Agreements*." In the case of the occurrence of an event of default or a termination event under the relevant Swap Agreement, the Swap(s) entered into with the relevant Swap Provider under such Swap Agreement may be terminated. Further, a Swap Provider is only obliged to make payments to us under the Swap Agreement as long as and to the extent that we comply with its payment obligations (subject to any applicable grace periods) under the relevant Swap Agreement. If either (i) a Swap terminates, (ii) the Swap Provider is not obliged to make payments under the Swap Agreement due to an event of default in respect of us under the relevant Swap Agreement or (iii) the Swap Provider defaults in its obligations to make payments of amounts in the currency of the relevant Covered Bonds equal to the full amount to be paid to us on the payment date under a Swap, we will be exposed to changes in the currency rates of exchange for converting Won into the currency of the relevant Covered Bonds and to any changes in the relevant rates of interest. Following the termination of a Swap, unless a replacement swap is entered into, we may have insufficient funds to make payments under the Covered Bonds.

If a Swap terminates, then we may be obliged to make a Swap Termination Payment to the relevant Swap Provider. There can be no assurance that we will have sufficient funds available to make a Swap Termination Payment under the relevant Swap Agreement, nor can there be any assurance that we will be able to find a replacement swap provider which has sufficiently high ratings as may be required by any of the Rating Agencies and which agrees to enter into a replacement swap.

If we are obliged to pay a Swap Termination Payment under any Swap Agreement following an Issuer Event of Default, such termination payment (other than any termination payments resulting from a termination of the Swap following an event of default or termination event by the relevant Swap Provider under the relevant Swap Agreement) will (prior to the service of an Acceleration Notice) rank ahead of any principal or interest amounts due on the Covered Bonds and (following the service of an Acceleration Notice) rank *pari passu* with any principal or interest amounts due on the Covered Bonds. The obligation to pay a Swap Termination Payment may adversely affect our ability to meet our obligations under the Covered Bonds.

Claims of senior ranking creditors may adversely affect the funds available to redeem the Covered Bonds.

The Korean Covered Bond Laws provide that Covered Bondholders, Swap Providers, the Asset Monitor, the Trustee, the Agents and the Account Banks are all Priority Payment Right Holders, with a *pari passu*, priority claim over the assets in the Cover Pool. However, pursuant to the Establishment Deed, the Master Definitions Agreement and the Swap Agreements, each Priority Payment Right Holder will agree that the payment claims of certain Priority Payment Right Holders will rank ahead of the claims of other Priority Payment Right Holders, in accordance with the applicable Cover Pool Priority of Payments. In particular, the claims of the Trustee, Agents, Asset Monitor, Account Banks and in certain cases termination payments due to Swap Providers (in relation to Swap Agreements relating to any Series of Covered Bonds, including those Series that may not have a Swap Agreement) will rank ahead of the claims of the Covered Bondholders following the service of an Issuer EOD Notice and/or the service of an Acceleration Notice on us. The subordination of the claims of Covered Bondholders may adversely affect the assets available to redeem the Covered Bonds. In particular, Swap Termination Payments due to Swap Providers could be substantial.

The Covered Bonds are subject to uncertainties in insolvency proceedings and concerning the validity and/or enforceability of subordination provisions.

There is uncertainty as to the validity and/or enforceability of a provision which (based on contractual and/or trust principles) subordinates certain payment rights of a creditor to the payment rights of other creditors of its counterparty upon the occurrence of insolvency proceedings relating to that creditor. In particular, recent cases have focused on provisions involving the subordination of a hedging counterparty's payment rights in respect of certain termination payments upon the occurrence of insolvency proceedings or other default on the part of such counterparty (so-called "flip clauses"). Such provisions are similar in effect to the terms which will be included in the Transaction Documents relating to the subordination of payments under the Cover Pool Priority of Payments.

The UK Supreme Court has held that a flip clause as described above is valid under English law. However, the United States Bankruptcy Court has held that such a subordination provision is an unenforceable *ipso facto* clause under United States bankruptcy law and that any action to enforce such provision would violate the automatic stay which applies under such law in the case of a United States bankruptcy of the counterparty. The implications of this conflicting judgement are not yet known, particularly as the United States Bankruptcy Court approved, in December 2010, the settlement of the case to which the judgement relates, and the appeal was subsequently dismissed. However, in a more recent case involving similar collateralised debt obligations created by Lehman, the bankruptcy judge disagreed (Bankr.S.D.N.Y. 2016), concluding that even assuming the flip provisions should be treated as *ipso facto* clauses, they were nonetheless enforceable under the relevant safe harbour provision, which was affirmed on appeal in *In re Lehman Bros. Holdings Inc* and on 11 August 2020 affirmed in a *per curiam* opinion by the Second Circuit (2020 WL 4590247 (2d Cir. Aug. 11, 2020)). It is not certain whether Lehman Brothers Special Finance will obtain further review of this judgement from the Second Circuit *en banc* or the U.S. Supreme Court and accordingly, there remains uncertainty as to the enforceability of flip clauses in U.S. courts.

If our creditor (such as a Swap Provider) or a related entity becomes subject to insolvency proceedings in any jurisdiction outside England and Wales (including, but not limited to, the United States), and it is owed a payment by us, a question arises as to whether the insolvent creditor or any insolvency official appointed in respect of that creditor could successfully challenge the validity and/ or enforceability of subordination

provisions included in the English law governed Transaction Documents (such as a provision of the Cover Pool Priority of Payments which refers to the ranking of the Swap Providers' payment rights). In particular, based on conflicting decisions of the United States courts referred to above, there is a risk that such subordination provisions would not be upheld under United States bankruptcy laws. Such laws may be relevant in certain circumstances with respect to a range of entities which may act as Swap Provider, including entities established in the United States and certain entities established outside the United States with assets or operations in the United States (although the scope of any such proceedings may be limited if the relevant non-United States entity is a bank with a licenced branch in a state within the United States). In general, if a subordination provision included in the Transaction Documents was successfully challenged under the insolvency laws of any relevant jurisdiction outside England and Wales and any relevant foreign judgement or order was recognised by the English courts, there can be no assurance that such actions would not adversely affect the rights of the Covered Bondholders, the market value of the Covered Bonds and/or our ability or the Cover Pool assets to satisfy our obligations under the Covered Bonds.

Lastly, given the general relevance of the issues under discussion in the judgements referred to above and that the Transaction Documents will include terms providing for the subordination of payments under the Cover Pool Priority of Payments, there is a risk that the final outcome of the dispute in such judgements (including any recognition action by the English courts) may result in negative rating pressure in respect of the Covered Bonds. If any rating assigned to the Covered Bonds is lowered, the market value of the Covered Bonds may reduce.

The regulation or reform of certain benchmark rates may adversely affect the value of Floating Rate Covered Bonds linked to or referencing such benchmark rates.

The Euro Interbank Offered Rate (“**EURIBOR**”) and other interest rate or other types of rates and indices which are deemed to be benchmarks are the subject of ongoing national and international regulatory discussions and proposals for reform. Some of these reforms are already effective whilst others are still to be implemented. These reforms may cause such benchmarks to perform differently than in the past, to disappear entirely, or have other consequences which cannot be predicted. Any such consequence could have a material adverse effect on any Floating Rate Covered Bonds linked to or referencing such a “benchmark”.

Regulation (EU) No. 2016/1011 (the “**EU Benchmarks Regulation**”) and Regulation (EU) No. 2016/1011 as it forms part of domestic law of the United Kingdom by virtue of the European Union (Withdrawal) Act 2018 (the “**UK Benchmarks Regulation**”) apply to the provision of benchmarks, the contribution of input data to a benchmark and the use of a benchmark, within the EU and the UK, respectively. The EU Benchmark Regulation and UK Benchmark Regulation could have a material impact on any Floating Rate Covered Bonds linked to EURIBOR or another benchmark rate or index, in particular, if the methodology or other terms of the benchmark are changed in order to comply with the terms of the EU Benchmark Regulation or UK Benchmark Regulation, and such changes could (amongst other things) have the effect of reducing or increasing the rate or level, or affecting the volatility of the published rate or level, of the benchmark. More broadly, any of the international, national or other proposals for reform, or the general increased regulatory scrutiny of benchmarks, could increase the costs and risks of administering or otherwise participating in the setting of a benchmark and complying with any such regulations or requirements. Such factors may have the effect of discouraging market participants from continuing to administer or contribute to certain “benchmarks,” trigger changes in the rules or methodologies used in certain “benchmarks” or lead to the discontinuance or unavailability of quotes of certain “benchmarks.”

As an example of such benchmark reforms, on 21 September 2017, the European Central Bank announced that it would be part of a new working group tasked with the identification and adoption of a “risk free overnight rate,” which can serve as a basis for an alternative to current benchmarks used in a variety of financial instruments and contracts in the euro area. On 13 September 2018, the working group on Euro risk-free rates recommended the new Euro short-term rate (“**€STR**”) as the new risk-free rate for the euro area. The €STR was published for the first time on 2 October 2019. Although EURIBOR has been reformed in order to comply with the terms of the Benchmark Regulation, it remains uncertain as to how long it will continue in its current form, or whether it will be further reformed or replaced with €STR or an alternative benchmark.

Where the Interest Rate specified in the relevant Pricing Supplement is SOFR, if we determine that a Benchmark Transition Event and its related Benchmark Replacement Date has occurred, the then-current Benchmark will be replaced by a Benchmark Replacement (determined by us in accordance with the Terms and Conditions of the Covered Bonds) for all purposes relating to the relevant Floating Rate Covered Bonds in respect of all determinations on such date and for all determinations on all subsequent dates. We will have to exercise our discretion to determine (or to elect not to determine) a Benchmark Replacement and, if applicable, a Benchmark Replacement Adjustment, in a situation in which it is presented with a conflict of interest.

The use of a Benchmark Replacement may result in interest payments that are substantially lower than or that do not otherwise correlate over time with the payments that could have been made on the relevant Floating Rate Covered Bonds if the relevant benchmark remained available in its current form.

Any of the above changes or any other consequential changes to benchmarks as a result of EU, UK, or other international, national, or other proposals for reform or other initiatives or investigations, or any further uncertainty in relation to the timing and manner of implementation of such changes could have a material adverse effect on the trading market for, value of and return on any Covered Bonds linked to such benchmark. Investors should consult their own independent advisers and make their own assessment about the potential risks imposed by the Benchmark Regulation reforms or possible cessation or reform of certain reference rates in making any investment decision with respect to any Covered Bonds linked to or referencing a benchmark.

The market continues to develop in relation to risk-free rates as a reference rate for Floating Rate Covered Bonds.

Investors should be aware that the market continues to develop in relation to risk-free rates, such as the Secured Overnight Financing Rate (“SOFR”). This relates not only to the substance of the calculation and the development and adoption of market infrastructure for the issuance and trading of bonds referencing such rates, but also how widely such rates and methodologies might be adopted.

The market or a significant part thereof may adopt an application of SOFR that differs significantly from that set out in the Terms and Conditions as applicable to the Covered Bonds. Furthermore, the Issuer may in the future issue Covered Bonds referencing SOFR that differ materially in terms of interest determination when compared with the Covered Bonds. In addition, the manner of adoption or application of SOFR reference rates in the Eurobond markets may differ materially compared with the application and adoption of SOFR in other markets, such as the derivatives and loan markets. Covered Bondholders should carefully consider how any mismatch between the adoption of SOFR reference rates across these markets may impact any hedging or other financial arrangements which they may put in place in connection with any acquisition, holding or disposal of Covered Bonds referencing SOFR.

SOFR has a limited history.

Publication of SOFR began in April 2018 and it therefore has a limited history. The future performance of SOFR may therefore be difficult to predict based on the limited historical performance. The level of SOFR during the term of the Covered Bonds may bear little or no relation to the historical level of SOFR. Prior observed patterns, if any, in the behaviour of market variables and their relation to SOFR such as correlations, may change in the future.

Furthermore, the Interest Rate is only capable of being determined at the end of the relevant Reference Period and immediately prior to the relevant Interest Payment Date. It may be difficult for Covered Bondholders to estimate reliably the amount of interest which will be payable on the Covered Bonds, and some investors may be unable or unwilling to trade such Covered Bonds without changes to their IT systems, both of which factors could adversely impact the liquidity of the Covered Bonds. Further, if the Covered Bonds become due and payable as a result of an Event of Default under Condition 10 (*Events of Default*), or are otherwise redeemed early on a date which is not an Interest Payment Date, the final Interest Rate payable in respect of the Covered Bonds shall be determined by reference to a shortened period ending immediately prior to the date on which the Covered Bonds become due and payable.

The administrator of SOFR may make changes that could change the value of SOFR or discontinue SOFR.

The New York Federal Reserve (or a successor), as administrator of SOFR, may make methodological or other changes that could change the value of SOFR, including changes related to the method by which SOFR is calculated, eligibility criteria applicable to the transactions used to calculate SOFR, or timing related to the publication of SOFR. In addition, the administrator may alter, discontinue or suspend calculation or dissemination of SOFR (in which case a fallback method of determining the interest rate on the Covered Bonds will apply). The administrator has no obligation to consider the interests of Covered Bondholders when calculating, adjusting, converting, revising or discontinuing SOFR.

The Covered Bonds may be represented by Global Covered Bonds or Global Certificates and holders of a beneficial interest in a Global Covered Bond or Global Certificate must rely on the procedures of the relevant Clearing System(s).

Covered Bonds issued under the Programme may be represented by one or more Global Covered Bonds or Global Certificates. Such Global Covered Bonds or Global Certificates will be deposited with the Common Depositary for Euroclear and Clearstream and/or DTC (each of Euroclear, Clearstream, DTC, a “**Clearing System**”). Except in the circumstances described in the relevant Global Covered Bond or Global Certificate, investors will not be entitled to receive Definitive Covered Bonds. The relevant Clearing System(s) will maintain records of the beneficial interests in the Global Covered Bonds and Certificates. While the Covered Bonds are represented by one or more Global Covered Bonds or Global Certificates, investors will be able to trade their beneficial interests only through the Clearing Systems.

While the Covered Bonds are represented by one or more Global Covered Bonds or Global Certificates, we will discharge our payment obligations under the Covered Bonds by making payments to the relevant Clearing System for distribution to their account holders.

A holder of a beneficial interest in a Global Covered Bond or Global Certificate must rely on the procedures of the relevant Clearing System(s) to receive payments under the relevant Covered Bonds. We have no responsibility or liability for the records relating to, or payments made in respect of, beneficial interests in the Global Covered Bonds or Global Certificates.

Covered Bonds issued as Green Bonds, Social Bonds or Sustainability Bonds may not be a suitable investment for all investors seeking exposure to green assets, social assets or sustainability assets.

We may issue Covered Bonds under the Programme which are specified to be “Green Bonds,” “Social Bonds” or “Sustainability Bonds” in the applicable Pricing Supplement (any such Covered Bonds, Green Bonds, Social Bonds or Sustainability Bonds, respectively), in accordance with our Sustainable Financing Framework. See “*Sustainable Financing Framework*”. In connection with an issue of Green Bonds, Social Bonds or Sustainability Bonds, we may request a sustainability rating agency or sustainability consulting firm to issue a Second Party Opinion confirming that any Green Bonds, Social Bonds or Sustainability Bonds are in compliance with the GBP 2021, ICMA (the “**ICMA Green Bond Principles**”), the SBP 2021, ICMA (the “**ICMA Social Bond Principles**”), the SBG 2021, ICMA (the “**ICMA Sustainability Bond Guidelines**”), the GLP 2023, LMA (the “**LMA Green Loan Principles**”) or SLP 2023, LMA (the “**LMA Social Loan Principles**”). The ICMA Green Bond Principles, the ICMA Social Bond Principles, the ICMA Sustainability Bond Guidelines, the LMA Green Loan Principles and the LMA Social Loan Principles are a set of voluntary guidelines that recommend transparency and disclosure and promote integrity in the development of the green bond, social bond and sustainability bond markets.

There is currently no market consensus on what precise attributes are required for a particular project to be defined as “green,” “social” or “sustainability,” and therefore no assurance can be provided to potential investors that the Green Eligible Categories, Social Eligible Categories or a combination of the two categories (in the case of Sustainability Bonds) will continue to meet the relevant eligibility criteria. Although applicable green projects, social projects or sustainability projects are expected to be selected in accordance with the categories recognised by the ICMA Green Bond Principles, the ICMA Social Bond Principles, the ICMA Sustainability Bond Guidelines, the LMA Green Loan Principles or the LMA Social Loan Principles and are expected to be developed in accordance with applicable legislation and standards, there can be no guarantee that adverse environmental and/or social impacts will not occur during the design, construction, commissioning and/or operation of any such green projects, social projects or sustainability projects. Where any negative impacts are insufficiently mitigated, green projects, social projects or sustainability projects may become controversial, and/or may be criticised by activist groups or other stakeholders.

Additionally, in accordance with the coal phase-out commitment declared by Hana Financial Group in March 2021, we have committed to stop any financings of new or expansion of coal-related projects and aim to reduce exposure to coal projects to zero by 2050. Our current exposure to coal projects is approximately 0.10% of our total loans outstanding as of 30 September 2024 on a separate basis. For the avoidance of doubt, any projects related to the development, construction or production/transmission of energy from fossil fuels such as coal are excluded from the “renewable energy” category of Eligible Green Categories, as set forth in our Sustainable Financing Framework.

Potential investors should be aware that any Second Party Opinion will not be incorporated into, and will not form part of, this Offering Circular or the applicable Pricing Supplement. Any such Second Party Opinion may

not reflect the potential impact of all risks related to the structure of the relevant Series of Green Bonds, Social Bonds or Sustainability Bonds, their marketability, trading price or liquidity or any other factors that may affect the price or value of the Green Bonds, Social Bonds or Sustainability Bonds. Any such Second Party Opinion is not a recommendation to buy, sell or hold securities and is only current as of its date of issue.

Furthermore, although we may agree at the relevant issue date of any Green Bonds, Social Bonds or Sustainability Bonds to allocate the amount equivalent to the net proceeds towards the financing and/or refinancing of Green Eligible Categories, Social Eligible Categories or a combination of the two categories (in the case of Sustainability Bonds) in accordance with certain prescribed eligibility criteria as described under the Sustainable Financing Framework, it would not be an event of default under the Green Bonds, Social Bonds or Sustainability Bonds if (i) we were to fail to comply with such undertaking or were to fail to allocate the proceeds in the manner specified in the applicable Pricing Supplement and/or (ii) any Second Party Opinion issued in connection with such Green Bonds, Social Bonds or Sustainability Bonds were to be withdrawn. Any failure to allocate the amount equivalent to the net proceeds of any Series of Green Bonds, Social Bonds or Sustainability Bonds in connection with green projects, social projects or sustainability projects and/or any failure to meet, or to continue to meet, the investment requirements of certain environmentally or socially focused investors with respect to such Green Bonds, Social Bonds or Sustainability Bonds may affect the value and/or trading price of the Green Bonds, Social Bonds or Sustainability Bonds, and/or may have consequences for certain investors with portfolio mandates to invest in green assets, social assets or sustainability assets.

Neither we nor the Dealers make any representation as to the suitability for any purpose of any Second Party Opinion or whether any Green Bonds, Social Bonds or Sustainability Bonds fulfil the relevant environmental or social criteria. Prospective investors should have regard to the relevant Green Eligible Categories, Social Eligible Categories or a combination of the two categories (in the case of Sustainability Bonds) and the use of proceeds described in the applicable Pricing Supplement. Each potential purchaser of any Series of Green Bonds, Social Bonds or Sustainability Bonds should determine for itself the relevance of the information contained in this Offering Circular and in the applicable Pricing Supplement regarding the use of proceeds and its purchase of any Green Bonds, Social Bonds or Sustainability Bonds should be based upon such investigation as it deems necessary.

Risks Relating to the Cover Pool

We may be unable to comply with overcollateralisation rules.

The Korean Covered Bond Laws require the value of the assets in a cover pool to at all times exceed 105% of the total aggregate outstanding principal amount of all Covered Bonds issued under the Programme and any interest accrued on such Covered Bonds. The assets in the Cover Pool may not be sufficient to ensure that we will have sufficient cash flows to meet our obligations under the Covered Bonds, or that such collateral will have the intended effect. Failure to maintain sufficient assets in the Cover Pool could result in us being unable to issue further Covered Bonds or to refinance existing Covered Bonds.

The Asset Coverage Test and the Amortisation Test may not ensure the sufficiency of our assets and cash flows to meet our obligations under the Covered Bonds.

The Asset Coverage Test and the Amortisation Test are intended to test whether our assets and cash flows, including the Underlying Assets, Liquid Assets and Other Assets in the Cover Pool and cash flows in respect thereof, will be adequate to enable us to meet our obligations under the Covered Bonds prior to and following the service of an Issuer EOD Notice.

The Asset Coverage Test is met if the Adjusted Aggregate Loan Amount is at least equal to the KRW Equivalent of the aggregate outstanding principal amount of all Covered Bonds as of each Calculation Date. Prior to the earlier to occur of the service of an Issuer EOD Notice and the service of an Acceleration Notice, if a breach of the Asset Coverage Test occurs as of any Calculation Date (as tested on the relevant Test Date), the Asset Monitor will serve an Asset Coverage Test Breach Notice on us. If an Asset Coverage Test Breach Notice has been served and not revoked on or before the third Calculation Date after the service of such Asset Coverage Test Breach Notice on us, then an Issuer Event of Default shall occur and the Trustee shall be entitled (and, in certain circumstances, may be required) to serve an Issuer EOD Notice on us. Following service of an Issuer EOD Notice, any breach of the Amortisation Test or our failure to pay on the Covered Bonds (subject in each case to applicable grace periods) would give rise to a Covered Bond Event of Default and the Trustee shall be entitled (and, in certain circumstances, may be required) to serve an Acceleration Notice on us.

Pursuant to the Asset Monitor Agreement, following the service of an Issuer EOD Notice (but prior to the service of an Acceleration Notice on us), we must ensure that it is in compliance with the Amortisation Test on each Calculation Date. The Amortisation Test will be satisfied if the Amortisation Test Adjusted Aggregate Loan Amount is in an amount at least equal to the KRW Equivalent of the aggregate outstanding principal amount of all the Covered Bonds on such Calculation Date. The Amortisation Test is intended to test whether the assets of the Cover Pool fall below a certain threshold, and therefore whether the assets of the Cover Pool are sufficient to meet our obligations under the Covered Bonds.

If the value of the Cover Pool has not been maintained in accordance with the terms of the Asset Coverage Test or, if applicable, the Amortisation Test, then such failure may reduce the likelihood that the realisable value of the Cover Pool or any part thereof (both before and after the occurrence of an Issuer Event of Default) will be sufficient for us (or the Asset Monitor on its behalf) to make payments under the Covered Bonds. Mortgage Loans that are more than 90 days in arrears are given zero weighting for the purposes of the Asset Coverage Test and the Amortisation Test.

Prior to service of an Issuer EOD Notice or an Acceleration Notice, the Asset Monitor will, subject to receipt of the relevant information from us, test the calculations performed by us in respect of the Asset Coverage Test. Following service of an Issuer EOD Notice (but prior to service of an Acceleration Notice), the Asset Monitor will be required to perform calculations in respect of the Amortisation Test. In addition, the Asset Monitor will be required to assess our compliance with certain statutory obligations under the Korean Covered Bond Laws. See “*Summary of the Principal Documents — Asset Monitor Agreement.*”

Although the Cover Pool is expected to be realised for sufficient value to enable us to meet our obligations under the Covered Bonds, there can be no assurance that the Asset Coverage Test and the Amortisation Test or any other test will fully ensure the sufficiency of our assets and cash flows for such purposes.

We may not be able to obtain sufficient Pre-Maturity Liquidity Assets to remedy any breach of the Pre-Maturity Test.

If there is a breach of the Pre-Maturity Test in respect of a Series of Hard Bullet Covered Bonds prior to service of an Issuer EOD Notice on us, we may need to add Pre-Maturity Liquidity Assets to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account, with the intention that the KRW Equivalent of the value of the Pre-Maturity Liquidity Assets (determined in accordance with the Korean Covered Bond Laws and subject to the application of valuation haircuts in accordance with Rating Agency criteria) will at least be equal to the Required Redemption Amount of all Series of Hard Bullet Covered Bonds which are scheduled to mature during the relevant Pre-Maturity Test Period. See “*Summary of the Principal Documents — Establishment Deed — Pre-Maturity Liquidity.*” We may not be able to obtain sufficient Pre-Maturity Liquidity Assets to credit to such accounts to remedy any breach of the Pre-Maturity Test by the required date and an Issuer Event of Default may occur as a result.

Changes to our lending criteria may lead to increased defaults by borrowers.

Each of the mortgage loans originated by us will have been originated in accordance with our lending criteria at the time of origination. Our lending criteria has generally considered the type of property, term of loan, age of applicant, the loan-to-value ratio, insurance policies, status and income of applicants and credit history and is expected to continue to do so. We retain the right to revise our lending criteria from time to time but would only do so to the extent that such a change would be acceptable to reasonable and prudent institutional mortgage lenders in the Korean market and having consideration of the Korean regulatory guidelines. If our lending criteria changes in a manner that affects the creditworthiness of the mortgage loans, that may lead to increased defaults by borrowers and may affect the realisable value of the Cover Pool, or part thereof, and our ability to make payments on the Covered Bonds.

There can be no assurance that timely payments will be made in the case of our bankruptcy.

Following the occurrence of a Cause of Disposal Event, namely the service of an Issuer EOD Notice or an Acceleration Notice on us, the Asset Monitor may take any action considered necessary, in accordance with the Korean Covered Bond Act and the Asset Monitor Agreement, to ensure that holders of the Covered Bonds receive timely payments on the Covered Bonds, including disposing of assets in the Cover Pool. The Asset Monitor’s ability to apply the Cover Pool assets to pay the Priority Payment Right Holders following the service of an Issuer EOD Notice will depend on (a) the realisable value of the Mortgage Loans and related Collateral

Security in the Cover Pool, (b) the amount of receivables generated by the Mortgage Loans in the Cover Pool and the timing thereof, (c) amounts received from Swap Providers and (d) the realisable value of Liquid Assets and Other Assets in the Cover Pool. The Asset Monitor will not have any other source of funds available to meet the Priority Payment Rights.

The Asset Monitor will use collections and proceeds of disposal from the Cover Pool to pay the Covered Bondholders and other Priority Payment Right Holders in accordance with the Cover Pool Priority of Payments set out in the Establishment Deed. However, the Asset Monitor may not be able to realise assets in the Cover Pool for sufficient values to satisfy obligations under the Covered Bonds and other Priority Payment Right Holders that rank in priority to or *pari passu* with amounts due on the Covered Bonds in accordance with the Cover Pool Priority of Payments.

Mortgage Loans in the Cover Pool may be subject to insolvency clawback risk.

Under the laws of Korea, the insolvency administrator appointed pursuant to insolvency proceedings (including rehabilitation proceedings and bankruptcy proceedings) commenced with respect to the issuer in Korea would be entitled to claw back the Mortgage Loans from the Cover Pool if certain conditions set forth in the relevant Korean insolvency laws, including, but not limited to, any of the following conditions, are satisfied: (1) we are aware that the transfer of the Mortgage Loans to the Cover Pool would be detrimental to its creditors at the time of the transfer; (2) such transfer which (a) is detrimental to our creditors or (b) relates to the provision of security or discharge of any obligation by us, occurs following our suspension of payment or commencement of a petition for rehabilitation proceedings or bankruptcy proceedings (the “**Suspension/Petition**”); or (3) such transfer which relates to the provision of security or discharge of any obligation by us occurs after or within sixty (60) days before the Suspension/Petition and, further, (i) such transfer does not pertain to our obligations and (ii) the method and the time of such transfer do not belong to our obligations. In addition, a creditor of ours may request the court to claw back the Mortgage Loans from the Cover Pool in accordance with the Korean Civil Code if certain conditions, including that we transfer the Mortgage Loans with the knowledge that the transfer would be detrimental to our creditors, are satisfied. Therefore, the possibility of our insolvency administrator or a creditor of ours seeking to clawback the relevant Mortgage Loans from the Cover Pool and into our general assets cannot be completely ruled out.

Under the Establishment Deed, we may not transfer the New Mortgage Loans to the Cover Pool unless we provide a solvency certificate.

Collections in respect of Mortgage Loans may be commingled with our other funds until collections are re-directed to the Transaction Account following a Transaction Account Bank Termination Event.

Until collections paid by the Borrowers in respect of the Mortgage Loans in the Cover Pool are redirected by the automatic debit banks and by the Korea Financial Telecommunications & Clearing Institute (“**KFTC**”) to the Transaction Account (which is an account registered with the FSC as part of the Cover Pool) following the occurrence of a Transaction Account Bank Termination Event and the service of the KFTC Notices, any collections in respect of the Mortgage Loans will continue to be paid to our general collection account, which is not part of the Cover Pool. Such collections will be commingled with collections in respect of other loans originated by us and our other funds which are not part of the Cover Pool, until such collections are transferred by us into the Transaction Account on the Korean Business Day immediately following receipt of such collections. Any delay or failure of us or the Asset Monitor to send the KFTC Notices to the automatic debit banks and to KFTC following the occurrence of a Transaction Account Bank Termination Event could affect the amount available in the Cover Pool to pay the Covered Bondholders.

Changes in the servicer may result in delays in payments.

We will continue to service the Mortgage Loans in the Cover Pool and receive collections in relation to the Mortgage Loan Assets in the Cover Pool until the appointment of a Replacement Servicer. Under the Asset Monitor Agreement, following the occurrence of a Servicer Replacement Event, the Asset Monitor may, if it deems appropriate in its sole discretion to ensure continued servicing of the Mortgage Loans or to maintain the ratings of the Covered Bonds, request that we and the Asset Monitor jointly appoint a Replacement Servicer (or the Asset Monitor will be required to appoint such Replacement Servicer itself if no joint appointment is made within the specified period). There is no assurance that a Replacement Servicer who has sufficient experience of administering residential mortgages and who is willing and able to service the Mortgage Loans on the terms required by the Asset Monitor would be found. There is no assurance that any Replacement Servicer appointed

will be able to perform the servicing duties that may be required by the Asset Monitor to ensure continued servicing of the Mortgage Loans and to maintain the ratings of the Covered Bonds.

There is no assurance that the Asset Monitor or any Replacement Servicer, when required, will be able to perform the collection services as well as us or in a timely manner. In particular, it may take time from the date of the appointment of the Replacement Servicer until the IT system of the Replacement Servicer is fully integrated with that of ours and such servicing and collection of amounts due from Obligor will require our cooperation or any bankruptcy administrator appointed in respect of us. There could be delays in the collection and management of payments due by Obligor in respect of the Mortgage Loans. Any such change of servicer of the Mortgage Loans could adversely affect the Asset Monitor's ability to apply the Cover Pool assets to pay the Priority Payment Right Holders following the service of an Issuer EOD Notice.

Management and disposal of the Cover Pool by the Asset Monitor are subject to certain limitations.

Following the occurrence of a Cause of Disposal Event, the Cover Pool will be managed by the Asset Monitor, who may dispose of assets in the Cover Pool to make payments to Covered Bondholders and other Priority Payment Right Holders. In connection with such duties, the Asset Monitor will, among other things, (i) notify Borrowers of the registration of the Mortgage Loans as part of the Cover Pool and of the Asset Monitor's rights to dispose of the Cover Pool if we fail to do so within 15 Korean Business Days following the occurrence of a Cause of Disposal Event, (ii) manage, maintain and/or dispose of the Cover Pool (including instructing us or any Replacement Servicer on servicing the Mortgage Loans and managing amounts receivable and payable in respect of the Cover Pool or the Cover Pool Priority of Payments) and (iii) (if an Account Bank is us) replace us as Account Bank of the relevant Cover Pool Cash Accounts with a third party Account Bank with the requisite ratings. The ability of the Asset Monitor to manage the Cover Pool and instruct us on servicing of the Mortgage Loans depends on the Asset Monitor having all the data it requires for such management. The Asset Monitor Agreement contains certain obligations on us to provide Data Files of the Mortgage Loans in the Cover Pool to the Asset within five Korean Business Days of a request by the Asset Monitor, and to provide full cooperation and assistance to the Asset Monitor or any of its Delegates or the Replacement Servicer to take certain action necessary for the management of the Cover Pool following the service of an Issuer EOD Notice, including actions relating to the transfer of data relating to the Cover Pool. Any delay or failure of us to provide all relevant data and any inaccuracy or incompleteness in such data may affect the Asset Monitor's ability to manage the Cover Pool.

In connection with any disposal of Mortgage Loans in the Cover Pool, the Asset Monitor may not make such disposal in respect of a Mortgage Loan until the relevant Obligor has been notified of the Asset Monitor's right of disposal. Any failure or delay of the Asset Monitor to make such notification may affect the timing at which the relevant Mortgage Loan may be disposed of and could affect the amount available in the Cover Pool to pay the Covered Bondholders and other creditors. In addition, if the relevant Obligor has a right to consent to any transfer of the claim under the relevant contract in respect of the Mortgage Loan, then the Asset Monitor must obtain such Obligor's consent, although it is one of the Mortgage Loan Warranties that no consent to the sale and assignment of the relevant Mortgage Loan is required to be given by the relevant borrower.

The Asset Monitor is required under the Korean Covered Bond Act and undertakes in the Asset Monitor Agreement that it will perform its duties in connection with the management, maintenance and (if it deems appropriate) disposal of the Cover Pool with the level of due care as is required of the Asset Monitor under the Korean Covered Bond Laws and exercise the standard of care necessary to protect the interests of the Priority Payment Right Holders, acting reasonably and in good faith for and on behalf of the Priority Payment Right Holders. However, the exact timing and the manner in which the Asset Monitor decides to perform its duties and in particular to dispose of all or part of the Cover Pool may affect the realisable value of the Cover Pool or any part thereof.

Certain factors may adversely affect the value of the Cover Pool realisable by the Asset Monitor.

The realisable value of the assets of the Cover Pool (which may affect the timing and quantum of payments on the Covered Bonds) may be adversely affected by:

- the extent of representations or warranties that we may give in respect of the assets (which may be none);
- default by Borrowers of amounts due on their Mortgage Loans; and
- changes to our lending criteria.

If the realisable value of the Cover Pool assets is less than the par value thereof, then such deficiency will adversely affect the level of overcollateralisation available for Covered Bonds maturing at a later date.

The transfer of the Mortgage Loan Assets to the Cover Pool will not be perfected against the Obligors until a Cause of Disposal Event occurs, if at all.

Under Korean law, the registration of Mortgage Loan Assets as part of the Cover Pool by us will be perfected against third parties (other than the relevant Obligors) on the date the relevant Mortgage Loan Assets are registered with the FSC as part of the Cover Pool. In order to perfect the transfer to the Cover Pool against the Obligors, it is necessary to notify the Obligors of such transfer. No Perfection Notices will be sent to the Obligors until a Cause of Disposal Event occurs. As a consequence, the transfer of the Mortgage Loan Assets to the Cover Pool will not be perfected against the Obligors and the Obligors are entitled to continue to make payments to us under the Mortgage Loan Agreements and exercise against the Asset Monitor all defences (such as set-off rights) that are available against us in respect of their obligations under the Mortgage Loan Agreements. Any such exercise of rights may adversely affect the Asset Monitor's ability to pay the Priority Payment Right Holders following the service of an Issuer EOD Notice.

Set-off risk may adversely affect the value of the Cover Pool or any part thereof.

An underlying Obligor of any Mortgage Loan in the Cover Pool that has a deposit account with us will be able to set-off its deposit claims arising from such deposit account before notice to the underlying Obligor regarding the registration of the relevant Mortgage Loan as part of the Cover Pool with the FSC and the Asset Monitor's right to dispose of the Cover Pool. Set-off against us would not be affected by the fact that the deposit with us is subject to deposit insurance provided by Korea Deposit Insurance Corporation (the "KDIC"). As the deposit insurance payment to be paid by the KDIC is calculated by deducting from the deposit amount any debt (other than guarantee debt) owed by the depositor to us, the insurance payments from the KDIC will be an amount net of the loan outstanding. Therefore, the rights of the Covered Bondholders and other Priority Payment Right Holders in respect of the Cover Pool assets may be subject to the underlying Obligors' set-off rights against us which occur in relation to deposits made prior to notification to the underlying Obligors regarding the registration of the Cover Pool.

The exercise of set-off rights by the underlying Obligors may adversely affect the realisable value of the Cover Pool, which would have an impact on our ability to satisfy the Asset Coverage Test or Amortisation Test, as applicable, and/or our ability to make payments under the Covered Bonds. The Asset Coverage Test has been structured to mitigate the potential set-off risk, but there is no assurance that such risks will be completely accounted for.

The valuation on the properties underlying the Mortgage Loans may not be accurate.

Under our lending criteria, appraisals or valuation of the properties securing the Mortgage Loans take place through: (1) internal appraisals through one of our branch offices or the Collateral Valuation Department or (2) an independent appraisal conducted by an external appraiser.

We conduct internal appraisals of the relevant properties based on the information provided by the KB Property Index, which is based on internal and external surveys and research for property valuation in Korea, and, where available, the price information from the Ministry of Land, Infrastructure and Transport.

In the case of those Mortgage Loans for which an appraisal conducted by an external appraiser was used, such appraisal reflects the individual appraiser's judgement as to value, based on the market values of comparable homes sold within the recent past in comparable nearby locations and on the estimated replacement cost.

No assurance can be given that values of the properties underlying the Mortgage Loans have remained or will remain at the levels which existed on the dates of appraisal (or, where applicable, on the dates of appraisal updates) of the related Mortgage Loans.

The appraisal relates both to the land and to the structure; however, a significant portion of the appraised value of a property may be attributable to the value of the land rather than to the residence.

Due to the unique locations (for example, properties in scarcely populated areas) and special features of certain properties, identifying comparable properties in nearby locations may be difficult. The appraised values of such

properties will be based to a greater extent on adjustments made by the appraisers to the appraised values of reasonably similar properties rather than on objectively verifiable sales data. As a result, such appraisals could be more likely to overvalue certain properties and therefore overstate the value of the collateral underlying the Cover Pool. If the market value of the properties underlying the Mortgage Loans is less than the appraised value of these properties, this may adversely affect our ability to make payments on the Covered Bonds, in circumstances where we are required to obtain payment from borrowers by a foreclosure sale of the properties underlying the relevant Mortgage Loans.

The Mortgage Loans are exposed to fluctuations in performance of the Korean real estate market, and a decline in the value of the collateral securing the Mortgage Loans and its inability to realise full collateral value may adversely affect our Mortgage Loans.

Our Mortgage Loan portfolio is exposed to fluctuations in performance of the Korean residential real estate market. Declines in demand for or falls in the price of residential real estate in Korea could have a significant impact on our business, reducing both our income from collections of interest and principal payments and the value of the properties securing our Mortgage Loans. In relation to the Mortgage Loans, such factors could reduce the liquidation proceeds and thereby ultimately result in less funds available to make payment of interest on and the repayment of principal of the Covered Bonds.

Although the maximum loan-to-value of the Mortgage Loans included in the Cover Pool is 70% at the time of origination, downturns in the real estate markets in Korea from time to time have resulted in declines in the value of the collateral securing some loans to levels below their outstanding principal balance. Future declines in real estate prices would reduce the value of the collateral securing the Mortgage Loans. If collateral values decline in the future to a sufficient extent, they may not be sufficient to cover amounts owing in respect of the relevant Mortgage Loan. Following the occurrence of an Issuer Event of Default, cash collections from, and disposal proceeds of, the Mortgage Loans in the Cover Pool are the primary source of payment on the Covered Bonds.

In the event of a decline in real estate prices, losses sustained on the Mortgage Loans could result in losses being sustained on the Covered Bonds. In addition, any declines in the value of the real estate securing our mortgage loan portfolio could result in a deterioration in our asset quality and may require us to take additional loan loss provisions.

In Korea, the process of enforcing security on real estate assets generally requires a written petition to a court by the secured creditor. An application, when made, may be subject to delays and administrative requirements that may result in a decrease in the value realised with respect to the relevant secured asset. There can be no assurance that we will be able to realise the full value of the security as a result of, among other factors, delays in enforcement proceedings and defects, if any, in the perfection of our security interest, though it is a requirement that all the Mortgage Loans included in the Cover Pool have the benefit of fully perfected mortgages over real estate in Korea. Our failure to recover the expected value of the security could expose us to losses and may impact upon the payment of interest on, and the repayment of principal, of the Covered Bonds.

The Cover Pool consists of limited assets.

The Cover Pool consists mainly of Mortgage Loans which are secured on interests in residential property located in Korea and also claims which we hold, or may acquire, against Swap Providers and certain other Liquid Assets or Other Assets. All Mortgage Loans in the Cover Pool must comply with the Korean Covered Bond Laws, which, at the date of this Offering Circular, require a loan-to-value ratio (calculated as the ratio of the loan amount to the mortgage value of the property) of 70% or lower of the collateral property in the case of residential mortgage loans.

It should be noted that the value of our Cover Pool may decline in the event of a general downturn in the value of property in Korea (given that currently all of the mortgaged properties in the Cover Pool are in Korea), which could adversely affect our ability to perform our obligations under the Covered Bonds. In addition, the Covered Bondholders shall share the benefit of the statutory preference under the Korean Covered Bond Laws over the same Cover Pool with any other Covered Bondholders of us and other Priority Payment Right Holders, which could limit the amount of assets available to satisfy the claims of Covered Bondholders.

The Cover Pool is subject to geographic concentration risks.

Certain geographic regions of Korea from time to time will experience weaker regional economic conditions and housing markets or be directly or indirectly affected by natural disasters. Mortgage loans in such areas will experience higher rates of loss and delinquency than mortgage loans generally.

The ability of borrowers to make payments on the Mortgage Loans may also be affected by factors which do not necessarily affect property values, such as adverse economic conditions generally in particular geographic areas or industries, or affecting particular segments of the borrowing community (such as borrowers relying on commission income and self-employed borrowers). Such occurrences may accordingly affect the actual rates of delinquencies, foreclosures and losses with respect to the mortgage loans in the Cover Pool.

The Mortgage Loans may from time to time be concentrated in certain regions. Such concentration may present the risk considerations described above in addition to those generally present for similar securities without such concentration.

Borrowers may default on their obligations under their Mortgage Loans.

Borrowers may default on their obligations due under the Mortgage Loans for a variety of reasons. The Mortgage Loans are affected by credit, liquidity and interest rate risks. Various factors influence mortgage delinquency rates, prepayment rates, repossession frequency and the ultimate payment of interest and principal. Examples of such factors include changes in the national or international economic climate, regional economic or housing conditions, changes in tax laws, interest rates, inflation, the availability of financing, yields on alternative investments, political developments and government policies. Other factors in the Borrowers' individual, personal or financial circumstances may affect the ability of Borrowers to repay the Mortgage Loans. Loss of earnings, illness, divorce and other similar factors may lead to an increase in delinquencies by and bankruptcies of Borrowers, and could ultimately have an adverse impact on the ability of Borrowers to repay the Mortgage Loans. In addition, the ability of a Borrower to sell a property given as security for a Mortgage Loan at a price sufficient to repay the amounts outstanding under that Mortgage Loan will depend upon a number of factors, including the availability of buyers for that property, the value of that property and property values in general at the time.

We may change our lending criteria.

Each of the Mortgage Loans originated by us will have been originated in accordance with our lending criteria at the time of origination. It is expected that our lending criteria will generally consider type of property, term of loan, age of applicant, the loan-to-value ratio, status of applicants and credit history. We retain the right to revise our lending criteria from time to time. If the lending criteria change in a manner that affects the creditworthiness of the Mortgage Loans, such change may lead to increased defaults by Borrowers and may affect the realisable value of the Cover Pool, or part thereof, and the ability of the Asset Monitor to apply proceeds of the Cover Pool to make payments to Covered Bondholders.

There is no assurance that the characteristics of the New Mortgage Loans added to the Cover Pool after the Programme Date will be the same as those of the Mortgage Loans as of the Programme Date and limited description of the assets in the Cover Pool may be available.

The Covered Bondholders will only receive statistics or information in relation to the Mortgage Loans in the Investor Report and Asset Monitor Report to be published on our website on each Investor Report Date and Asset Monitor Report Date, respectively. Covered Bondholders will not receive additional information in relation to the Mortgage Loans and other assets included in the Cover Pool and it is expected that the constitution of the Cover Pool will change from time to time due to, for example, the addition and/or substitution of further Mortgage Loans by us to the Cover Pool from time to time or repayments or prepayments by Borrowers. Therefore, there is no assurance that the characteristics of such New Mortgage Loans will be the same as the Mortgage Loans forming part of the Initial Cover Pool. However, each Mortgage Loan will be required to meet the Eligibility Criteria and satisfy the Mortgage Loan Warranties set out in the Establishment Deed, although the Eligibility Criteria may also change in certain circumstances as described herein. See "*Summary of the Principal Documents — Establishment Deed.*" In addition, the Asset Coverage Test is intended to ensure that the Adjusted Aggregate Loan Amount is an amount equal to or in excess of the KRW Equivalent of the aggregate principal amount outstanding of the Covered Bonds for so long as Covered Bonds remain outstanding.

We, with the approval of the FSC, have appointed the Asset Monitor to monitor our compliance with the asset coverage requirement and the segregation requirement of the Korean Covered Bond Laws, and to calculate compliance with the Amortisation Test following the service of an Issuer EOD Notice, and the Asset Monitor shall provide a report on such monitoring and/or calculation to the FSC on a quarterly basis. Such report of the Asset Monitor will be available on our website.

Chapter 4 Proceedings could delay the enforcement of the Mortgage Loan Assets and Collateral Security.

A Chapter 4 Proceeding (as defined in “*Korean Legal Considerations — Insolvency Laws — Debtor Rehabilitation and Bankruptcy Act*”) provides for individual debtor rehabilitation proceedings to individual debtors who earn wages or business income with debts of no more than a specified amount. Chapter 4 Proceedings are intended to assist individuals in financial difficulty by providing a court-sanctioned financial rehabilitation programme outside the Korean bankruptcy regime. Under a Chapter 4 Proceeding, a debtor may apply to the court to have certain of his or her debts rescheduled to allow future income to be used to repay those debts. Chapter 4 Proceedings will not directly affect the amount, timing or interest rate on the Mortgage Loan Assets but may affect the enforcement of security while the court considers the debtor’s application for rehabilitation which may take up to a month. Further, once the court issues an order to commence a Chapter 4 Proceeding, any enforcement of security will be automatically suspended until a repayment plan is approved by the court or the Chapter 4 Proceeding is discontinued, whichever is earlier. If the approval of the repayment plan is delayed, the value and timing of proceeds of enforcement of the Mortgage Loan Asset granted by an Obligor or a third party who has applied for a Chapter 4 Proceeding could be adversely affected, which could adversely affect the Asset Monitor’s ability to apply the Cover Pool assets to pay the Priority Payment Right Holders following the service of an Issuer EOD Notice. See also “— *Chapter 2 Proceedings could adversely affect the enforcement of the Mortgage Loan Assets and Collateral Security*” below.

Chapter 2 Proceedings could adversely affect the enforcement of the Mortgage Loan Assets and Collateral Security.

A Chapter 2 Proceeding (as defined in “*Korean Legal Considerations — Insolvency Laws — Debtor Rehabilitation and Bankruptcy Act*”) is based on the former Corporate Reorganisation Act but expands the scope of eligible applicants to all types of legal entities, including corporations and unincorporated foundations or associations, as well as individuals. Eligible individuals may petition for a Chapter 4 Proceeding under the Debtor Rehabilitation and Bankruptcy Act as well. Under the Debtor Rehabilitation and Bankruptcy Act, an individual debtor may petition to the court for a Chapter 2 Proceeding if he or she is unable to repay his or her debts when they become due without having a material adverse effect on his or her business or if he or she may become bankrupt. Unlike a Chapter 4 Proceeding, in a Chapter 2 Proceeding, claims of secured creditors will be subject to the reorganisation plan approved by the court. While it is expected that claims of the secured creditors will receive preferential treatment relative to claims of unsecured creditors, there can be no assurance that, when an Obligor or a third party files for a Chapter 2 Proceeding, our claims in relation to the related Mortgage Loan Asset and Collateral Security will not be thereby adversely affected. This could in turn adversely affect the Asset Monitor’s ability to apply the Cover Pool assets to pay the Priority Payment Right Holders following the service of an Issuer EOD Notice. See also “— *Chapter 4 Proceedings could delay the enforcement of the Mortgage Loan Assets and Collateral Security*” above.

Individual Work-out Plans could restrict our or the Asset Monitor’s ability to recover amounts due and payable under the Mortgage Loans or to enforce the Mortgages to retain the full value of the proceeds of enforcement.

The Individual Work-out Plan Agreement (as defined in “*Korean Legal Considerations — Insolvency Laws — Individual Work-out Plans*”) assists qualifying individuals who are in financial difficulty to avoid personal bankruptcy. The Individual Work-out Plan Agreement applies to sole practitioners and to individuals who have a bad credit history, who owe ₩1.5 billion or less to financial institutions and (i) whose income exceeds a specified minimum or (ii) who are determined by the Review Committee (as defined in “*Korean Legal Considerations — Insolvency Laws — Individual Work-out Plans*”) to be able to repay their debts. In addition, under the concept of “pre-workout plans” for debtors whose delinquency period is less than the ninety-day period required to qualify for Individual Work-out Plans. If the Individual Work-out Plan is adopted by approval of creditor financial institutions representing more than 50% of the debtor’s outstanding unsecured debt and 50% or more of the debtor’s outstanding secured debt, the creditor financial institutions are bound by its terms. If an Individual Work-out Plan or Pre-Work-out Plan in respect of any Obligor takes effect, the Asset Monitor’s ability to apply the Cover Pool assets to pay the Priority Payment Right Holders following the service of an Issuer EOD Notice may be adversely affected.

CAPITALISATION

The following table shows our capitalisation, which is equal to the sum of borrowings, debentures and total equity, as of 30 September 2024. This information has been extracted from our unaudited interim consolidated financial statements as of 30 September 2024.

	As of 30 September 2024
	<i>(In billions of Won)</i>
Indebtedness	
Borrowings	₩23,049
Debentures	29,171
Total indebtedness	<u>52,220</u>
Equity	
Capital stock	5,360
Capital surplus	6,161
Hybrid equity securities	354
Capital adjustments	(38)
Retained earnings	22,008
Accumulated other comprehensive loss	(733)
Equity attributable to owners of the parent	<u>33,112</u>
Non-controlling interests	321
Total equity	<u>33,434</u>
Total capitalisation	<u>₩85,653</u>

There have been no material changes to our capitalisation since 30 September 2024.

Capital Adequacy

Pursuant to the capital adequacy requirements of the FSC as of the date hereof, we are required to maintain a minimum common equity Tier I capital adequacy ratio of 9.0%, a minimum Tier I capital adequacy ratio of 10.5% and a combined Tier I and Tier II capital adequacy ratio of 12.5%.

The following table sets out a summary of our capital base and capital adequacy ratios, on a consolidated basis and calculated in accordance with the standards set by the FSC, as of 30 September 2024.

	As of 30 September 2024
	<i>(In billions of Won, except percentages)</i>
Tier I capital⁽¹⁾	
Common equity capital ⁽²⁾	₩ 32,280
Other basic capital ⁽³⁾	372
Total Tier I capital	₩ 32,652
Tier II capital⁽⁴⁾	₩ 2,695
Total Tier I and II capital	₩ 35,347
Risk-weighted assets (“RWA”)⁽⁵⁾	
Credit RWA	₩175,223
Operational RWA	17,766
Market RWA	7,336
Total RWA	₩200,324
BIS capital ratio	
Common equity Tier I capital adequacy ratio	16.11%
Tier I capital adequacy ratio	16.30%
Tier II capital adequacy ratio	1.35%
Combined Tier I and Tier II capital adequacy ratio	17.65%

(1) Tier I capital is a sum of common equity capital and other basic capital.

(2) Common equity capital includes, among others, capital incurred in connection with common stock issued to meet the eligible requirement, capital surplus and capital adjustments, retained earnings, accumulated other comprehensive income and other capital surplus, capital adjustments and non-controlling interest on common shares issued by banks and affiliated subsidiaries.

(3) Other basic capital includes, among others, capital securities to meet accreditation requirements of other basic capital, capital surplus associated with the issuance of other basic capital, non-qualifying capital securities and accredited amount as other basic capital of a non-controlling interest on equity securities issued by a subsidiary.

(4) Tier II capital indicates supplementary capital, which includes, among others, capital securities to meet supplementary capital accreditation requirements, capital surplus associated with the issuance of supplementary capital, accredited amount of supplementary capital of non-qualifying capital securities, accredited amount as supplementary capital of a non-controlling interest on equity securities issued by a subsidiary, eligible allowance for possible loan losses on “normal” or “precautionary” category assets and allowance for possible loan losses in excess of the total amount of expected losses.

(5) Based on market risks.

There have been no material changes to our capital base and capital adequacy ratios since 30 September 2024.

SELECTED FINANCIAL INFORMATION

The following tables set forth selected financial data in respect of the Bank as of and for the years ended 31 December 2021, 2022 and 2023 and as of 30 September 2024 and for the nine months ended 30 September 2023 and 2024. The selected financial data set forth below have been derived from the audited consolidated financial statements of the Bank as of and for the years ended 31 December 2021, 2022 and 2023 and the unaudited interim consolidated financial statements of the Bank as of 30 September 2024 and for the nine months ended 30 September 2023 and 2024, each included elsewhere in this Offering Circular.

The audited consolidated financial statements of the Bank as of and for the year ended 31 December 2021 have been audited by Ernst & Young Han Young, whose independent auditor's report thereon are included elsewhere in this Offering Circular. The audited annual consolidated financial statements of the Bank as of and for the years ended 31 December 2022 and 2023 have been audited by Deloitte Anjin LLC, whose reports thereon are included elsewhere in this Offering Circular. The unaudited interim consolidated financial statements of the Bank as of 30 September 2024 and for the nine months ended 30 September 2023 and 2024 have been reviewed by Deloitte Anjin LLC, whose report thereon is included elsewhere in this Offering Circular. The financial statements included in this Offering Circular have been prepared in accordance with K-IFRS.

Our results of operations for the nine months ended 30 September 2024 may not be indicative of our result of operations for any future interim period or for the full year 2024.

Consolidated Statement of Profit or Loss and Other Comprehensive Income Data

	Year Ended 31 December			Nine Months Ended 30 September	
	2021	2022	2023	2023	2024
	<i>(In billions of Won, except for per share information)</i>				
Net interest income					
Interest income	₩ 8,787	₩13,347	₩ 19,793	₩14,602	₩15,306
Interest expenses	(2,636)	(5,739)	(11,876)	(8,637)	(9,523)
	<u>₩ 6,151</u>	<u>₩ 7,609</u>	<u>₩ 7,917</u>	<u>₩ 5,965</u>	<u>₩ 5,783</u>
Net fee and commission income					
Fee and commission income	838	875	932	706	778
Fee and commission expenses	(285)	(281)	(270)	(187)	(203)
	<u>₩ 553</u>	<u>₩ 594</u>	<u>₩ 661</u>	<u>₩ 519</u>	<u>₩ 575</u>
Net gain (loss) on financial instruments					
Net gain on financial instruments at fair value through profit or loss.	549	125	492	312	425
Net gain (loss) on derivative financial instruments used for hedging	(48)	(64)	26	(15)	1
Net gain on financial instruments at fair value through other comprehensive income.	79	2	84	83	150
Net gain (loss) on financial instruments measured at amortised costs	0	0	0	0	0
	<u>₩ 580</u>	<u>₩ 63</u>	<u>₩ 603</u>	<u>₩ 380</u>	<u>₩ 575</u>
Provision for allowance for credit loss	(243)	(658)	(658)	(537)	(220)
General and administrative expenses	(2,973)	(3,319)	(3,449)	(2,502)	(2,538)
Net other operating income (expenses)					
Other operating income	4,791	7,616	7,934	5,826	5,103
Other operating expenses	(5,440)	(7,838)	(8,403)	(5,987)	(5,524)
	<u>(649)</u>	<u>(223)</u>	<u>(469)</u>	<u>(161)</u>	<u>(421)</u>
Operating income	<u><u>₩ 3,418</u></u>	<u><u>₩ 4,067</u></u>	<u><u>₩ 4,606</u></u>	<u><u>₩ 3,664</u></u>	<u><u>₩ 3,755</u></u>

	Year Ended 31 December			Nine Months Ended 30 September	
	2021	2022	2023	2023	2024
<i>(In billions of Won, except for per share information)</i>					
Net non-operating income (expenses)					
Non-operating income	238	267	223	146	205
Non-operating expenses	(178)	(162)	(215)	(160)	(299)
	60	105	8	(14)	(94)
Income before income tax expenses	3,478	4,171	4,613	3,650	3,661
Income tax expenses	(903)	(1,060)	(1,126)	(875)	(871)
Net income	₩ 2,575	₩ 3,112	₩ 3,487	₩ 2,775	₩ 2,790
Other comprehensive income (loss)	141	(664)	521	458	379
Total comprehensive income	₩ 2,716	₩ 2,448	₩ 4,009	₩ 3,233	₩ 3,169
Owners of the parent	2,694	2,444	3,989	3,205	3,147
Non-controlling interests	23	5	20	27	22
Earnings per share					
Basic and diluted earnings per share	₩ 2,389	₩ 2,866	₩ 3,221	₩ 2,567	₩ 2,588

Consolidated Statement of Financial Position Data

	As of 31 December			As of 30 September
	2021	2022	2023	2024
<i>(In billions of Won)</i>				
Assets				
Cash and due from banks	₩ 27,694	₩ 41,088	₩ 30,564	₩ 37,008
Financial assets at FVTPL ⁽¹⁾	10,919	18,455	17,515	21,083
Derivative assets used for hedging	69	8	2	36
Financial assets measured at FVOCI ⁽²⁾	35,234	32,961	36,894	31,418
Securities at amortised cost	22,468	37,583	36,338	35,078
Loans	309,178	330,186	347,247	363,074
Property and equipment	2,004	2,426	2,415	2,605
Miscellaneous assets ⁽³⁾	22,628	22,601	27,868	33,626
Total assets	₩430,194	₩485,308	₩498,843	₩523,928
Liabilities				
Deposits	₩321,125	₩359,858	₩369,749	₩380,526
Financial liabilities at FVTPL	4,188	11,228	6,729	6,393
Derivative liabilities used for hedging	111	516	391	285
Borrowings	17,524	22,257	22,034	23,049
Debentures	27,700	26,233	26,542	29,171
Miscellaneous liabilities ⁽⁴⁾	30,788	35,250	41,313	51,071
Total liabilities	₩401,437	₩455,342	₩466,759	₩490,495
Equity				
Capital stock	₩ 5,360	₩ 5,360	₩ 5,360	₩ 5,360
Capital surplus	9,654	6,160	6,161	6,161
Hybrid equity securities	533	533	354	354
Capital adjustments	(38)	(38)	(38)	(38)
Retained earnings	13,897	19,236	21,050	22,008
Accumulated other comprehensive loss	(916)	(1,566)	(1,104)	(733)
Equity attributable to owners of the parent	28,490	29,686	31,783	33,112
Non-controlling interests	266	279	302	321
Total equity	₩ 28,756	₩ 29,965	₩ 32,084	₩ 33,434
Total liabilities and equity	₩430,194	₩485,308	₩498,843	₩523,928

(1) Fair value through profit or loss.

(2) Fair value through other comprehensive income.

(3) Includes investments in associates and a joint venture, investment properties, intangible assets, net defined benefit assets, current tax assets, deferred tax assets, other assets, merchant banking account assets and non-current assets held for sale.

- (4) Includes net defined benefit liabilities, provisions, current tax liabilities, deferred tax liabilities, other liabilities and merchant banking account liabilities.

Selected Ratios

	As of or for the Year Ended 31 December			As of or for the Nine Months Ended 30 September	
	2021	2022	2023	2023	2024
Average return on assets ⁽¹⁾	0.62%	0.66%	0.70%	0.74%	0.72%
Average return on equity ⁽²⁾	9.42	10.72	11.29	12.10	11.48
Net interest margin ⁽³⁾	1.41	1.62	1.59	1.62	1.47
Net interest spread ⁽⁴⁾	1.40	1.59	1.52	1.54	1.39
Cost-to-income ratio ⁽⁵⁾	44.78	41.15	38.74	37.44	38.93
Equity to total assets ⁽⁶⁾	6.68	6.17	6.43	N.A.	6.38
Non-performing loans/total loans ⁽⁷⁾	0.26	0.21	0.26	N.A.	0.27
Allowance/non-performing loans ⁽⁸⁾	163.96%	212.22%	205.53%	N.A.	181.67%

- (1) Defined as net income (annualised for interim periods) divided by the arithmetic average of the quarterly ending balances of total assets.
- (2) Defined as net income (annualised for interim periods) divided by the arithmetic average of the quarterly ending balances of total equity.
- (3) Defined, on a separate basis, as net interest income (annualised for interim periods) divided by the average of the daily ending balances of interest earning assets (calculated in accordance with FSS reporting guidelines).
- (4) Represents, on a separate basis, the difference between the average yield (annualised for interim periods) on interest earning assets and the average cost (annualised for interim periods) of interest bearing liabilities (calculated in accordance with FSS reporting guidelines).
- (5) Calculated as the ratio of general and administrative expenses to operating income (prior to deducting general and administrative expenses and impairment losses on financial instruments).
- (6) Represents the ratio of total equity to total assets.
- (7) Represents, on a separate basis, the ratio of non-performing assets to total credits. Non-performing assets are defined as those assets that are classified as substandard or below based on the FSC's asset classification criteria.
- (8) Represents, on a separate basis, the ratio of the sum of allowance for possible loan losses and reserve for bad debts to non-performing loans.
- N.A. means not available.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with, and is qualified in its entirety by reference to, the historical consolidated financial statements and the notes thereto included elsewhere in this Offering Circular. The discussion contains forward-looking statements that involve risks, uncertainties and assumptions. Actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors such as those set forth under “Investment Considerations” and elsewhere in this Offering Circular. Any discrepancies in any table between totals and the sums of the amounts listed are due to rounding.

Overview

We are one of the leading commercial banks in Korea in terms of total assets, revenues, profitability and capital adequacy. As of 30 September 2024, we had total assets, total net loans (after allowance for loan losses and net deferred loan fees and expenses), total deposits and total equity of ₩523.9 trillion, ₩363.1 trillion, ₩380.5 trillion and ₩33.4 trillion, respectively.

As a full-service financial institution, we operate an extensive nationwide and overseas banking network, consisting of 601 domestic branches and sub-branches, as well as 19 international branches, one sub-branch of such international branches, five overseas representative offices, 11 overseas subsidiaries and 78 sub-branches of such overseas subsidiaries as of 30 September 2024. Our overseas operations span across 26 countries outside of Korea, the most among all major commercial banks in Korea.

We also operated over 3,523 ATMs throughout Korea as of 30 September 2024 and offer Internet and mobile banking services. Through this nationwide and global network, we serve corporate and retail customers with a full complement of banking and financial services. We continue to hold strong market positions in the business segments where we have historically maintained competitive strengths, such as large corporate banking, foreign exchange and trade financing, and following the Merger, we have also gained a leading position in other business areas, such as retail banking, private banking and wealth management. Our leading presence in the market has been widely recognised by a number of significant industry awards over the years. In 2024, we received the “Best Bank in Korea”, the “Best Trade Finance Provider in Korea”, the “Best Foreign Exchange Bank in Korea”, the “Best Private Bank in Korea” and the “Most Innovative Private Bank in the World” awards from Global Finance Magazine and the “Best Bank in Korea” and the “Best Private Bank in Korea” awards from Euromoney Magazine. In 2023, we received the “Best Private Bank in Korea” award from The Banker, the “Best Bank in Korea”, the “Best Sub-Custodian Bank in Korea”, the “Best Foreign Exchange Bank in Korea” and the “Best Trade Finance Provider in Korea” awards from Global Finance Magazine, and the “Best Private Bank in Korea” award from Euromoney Magazine. In 2022, we received the “Best Bank in Korea”, the “Best Trade Finance Provider in Korea” and the “Best Private Bank in Korea” awards from Global Finance Magazine, the “Best Private Bank in Korea” award from Euromoney Magazine and the “Best Bank in Korea” and the “Innovation in Digital Banking” awards from The Banker.

Trends in the Korean Economy and the Commercial Banking Industry

Our financial condition and results of operations have been, and will continue to be, significantly affected by the economic conditions in Korea. Since 2020, the economic indicators in Korea and globally have shown mixed signs of deterioration and recovery largely due to the adverse macroeconomic conditions induced by the COVID-19 pandemic as well as rising price levels, and the Government's implementation of measures to fight inflation. According to the Bank of Korea, Korea's GDP growth was 4.0% in 2021, 2.6% in 2022 and 1.4% in 2023. Meanwhile, in November 2023, the Bank of Korea forecasted GDP growth to be 2.1% in 2024. Housing prices in Korea, particularly those in the Seoul metropolitan area, have fluctuated significantly in recent years.

We are also exposed to changes and volatility in global and Korean financial markets as a result of our liabilities and assets denominated in foreign currencies and our holdings of trading and investment securities, including structured products. The value of the Won relative to major foreign currencies in general and the U.S. dollar in particular has fluctuated in recent years, and a depreciation of the Won will have the impact of increasing our cost in Won of servicing our foreign currency-denominated debt, while continued exchange rate volatility may also result in foreign exchange losses for us. Furthermore, as a result of continued uncertainty in global and Korean economic conditions, there has been continued volatility in securities prices, including the prices of debt and equity securities held by us. Such volatility may lead to further trading and valuation losses on our trading and investment securities portfolio as well as impairment losses on our investments accounted for under the equity method.

Currently, we consider the following as potential risks to the Korean economy and financial markets: (i) a potential decline in exports resulting from a global economic slowdown, especially in light of Korea's heavy dependence on trade with China, which may be further aggravated by trade disputes between China and the United States and adverse foreign exchange rate movements, as well as hostilities or political or social tensions involving Russia and countries in the Middle East, (ii) the weakening of Korea's growth potential due to declines in investment and labour force, which may inhibit economic recovery in the future, and (iii) potential credit risks stemming from the fluctuations in interest rates and exchange rates, growth in household loans, and increasing default risks of households and corporations that were affected by the adverse macroeconomic conditions.

As for interest rate movements, like many other countries, Korea experienced a low interest rate environment between 2009 and 2019 despite some marginal fluctuations, in part due to the Government's policy to stimulate the economy through active rate-lowering measures. Between 2009 and 2019, the base interest rate set by the Bank of Korea, to which the market interest rates correlate, fluctuated within a range of 1.25% and 3.25%. In March 2020, amid growing concerns over the COVID-19 pandemic, the Bank of Korea cut the base interest rate by 50 basis points to 0.75% and in May 2020 further to 0.50%. However, as the pandemic began to recede and the economy showed some signs of recovery starting from the second half of 2021, the Bank of Korea gradually raised the base interest rate multiple times to reach a pre-pandemic level of 1.25% from August 2021 through January 2022. And, in response to rising levels of household debt and inflation in Korea as well as globally, the Bank of Korea again raised the base interest rate to 1.50% in April 2022, 1.75% in May 2022, 2.25% in July 2022, 2.50% in August 2022, 3.00% in October 2022, 3.25% in November 2022 and 3.50% in January 2023 in an effort to address rising consumer prices. The base interest rate remained at 3.50% until October 2024, when it was reduced to 3.25%, and further lowered to 3.00% in November 2024, as inflation in Korea showed signs of stabilising and the need for economic stimulus grew. All else being equal, increases in interest rates in the future could lead to a decline in the value of our portfolio of debt securities, which generally pay interest based on a fixed rate. A sustained increase in interest rates will also raise our funding costs, while reducing loan demand, especially among consumers. Rising interest rates may therefore require us to re-balance our asset portfolio and our liabilities in order to minimise the risk of potential mismatches and maintain our profitability. On the other hand, while a sustained decrease in interest rates may lead to an increase in loan demand among our customers and a reduction in our funding costs as well as an appreciation of the value of our debt securities, it would also decrease the interest rates we charge on our loan products.

We are currently not aware of any major regulatory developments that may have a material adverse effect on the commercial banking industry in Korea.

Furthermore, with the growing popularity of online financial service platforms and promotion of the fintech industry by the Government, we face growing competition from online-only banks and fintech companies, which compete, to a certain extent, with the financial services provided by traditional commercial banks like us. See *"Investment Considerations—Risks Relating to Our Business—Competition in the Korean banking industry is intense and may further intensify."* Accordingly, commercial banks, like us, will likely face increasing pressure to upgrade their service platforms to attract and maintain online users, which represent a growing customer base compared to traditional customers who have primarily conducted banking in-person at physical banking branches and ATMs.

As a result of volatile conditions in the Korean and global economies, as well as factors such as the COVID-19 pandemic, trade disputes and global geopolitics, anticipation of the policy rate moves by the U.S. Federal Reserve, fluctuations in oil and commodity prices and exchange rates, potential changes in fiscal and monetary policies, continued developments involving North Korea, Russia, Ukraine and the Middle East, and ongoing evolution in the finance industry, the outlook for the commercial banking sector in Korea remains uncertain.

Changes in Securities Values, Exchange Rates and Interest Rates

Fluctuations of exchange rates, interest rates and stock prices affect, among other things, the demand for our products and services, the value of and rate of return on our assets, the availability and cost of funding and the financial condition of our customers. The following table shows, for the dates indicated, the stock price index of all equities listed on the KRX KOSPI Market as published in the KOSPI, the Won to U.S. dollar exchange rates and benchmark Won borrowing interest rates.

	As of 31 December			As of 30 September
	2021	2022	2023	2024
KOSPI	2,977.65	2,236.40	2,655.28	2,593.27
₩/US\$ exchange rates ⁽¹⁾	₩ 1,185.5	₩ 1,267.3	₩ 1,289.4	₩ 1,319.6
Corporate bond rate ⁽²⁾	2.41%	5.23%	3.90%	3.40%
Treasury bond rate ⁽³⁾	1.80%	3.72%	3.15%	2.81%

Source: KRX KOSPI Market, Seoul Money Brokerage Services, Ltd., The Bank of Korea.

(1) Represents the Market Average Exchange Rate in effect on such dates.

(2) Measured by the yield on three-year Korean corporate bonds rated as AA- by the Korean credit rating agencies.

(3) Measured by the yield on three-year treasury bonds issued by the Ministry of Economy and Finance of Korea.

Critical Accounting Policies

The preparation of our financial statements requires management to make judgements, involving significant estimates and assumptions, in the application of certain accounting policies about the effects of matters that are inherently uncertain. These estimates and assumptions, which may materially affect the reported amounts of certain assets, liabilities, revenues and expenses, are based on information available to us as of the date of the financial statements, and changes in this information over time could materially impact amounts reported in the financial statements as a result of the use of different estimates and assumptions. Certain accounting policies, by their nature, have a greater reliance on the use of estimates and assumptions, and could produce results materially different from those originally reported because of the possibility that future events affecting these estimates and assumptions may differ significantly from our current judgement.

See “— Changes in Accounting Standards” as well as Note 2 of the notes to our consolidated financial statements included in this Offering Circular for summaries of our significant accounting policies that involve critical accounting estimates.

Changes in Accounting Standards

For discussions of new accounting standards, interpretations and amendments applicable to us, see Note 2.2 of the notes to our consolidated financial statements included elsewhere in this Offering Circular.

Results of Operations

Net Interest Income

The following table sets out the principal components of our net interest income for the periods indicated, as well as changes in these components over such periods in percentage terms.

	Year Ended 31 December			Nine Months Ended 30 September		Percentage Change		
	2021	2022	2023	2023	2024	2021/ 2022	2022/ 2023	2023 3Q/ 2024 3Q
	(In billions of Won)					(percentage)		
Interest income								
Due from banks	₩ 63	₩ 278	₩ 658	₩ 485	₩ 432	338.2%	136.8%	(10.9)%
Loans	7,839	11,762	17,120	12,646	13,165	50.0	45.6	4.1
Financial assets at FVOCI	441	544	837	596	777	23.2	53.9	30.4
Securities at amortised cost	403	699	1,003	751	748	73.3	43.5	(0.4)
Financial assets at FVTPL	40	65	176	123	182	63.5	170.9	48.1
Total interest income	<u>₩8,787</u>	<u>₩13,347</u>	<u>₩19,793</u>	<u>₩14,602</u>	<u>₩15,306</u>	51.9%	48.3%	4.8%
Interest expense								
Deposit liabilities	2,041	4,559	9,773	7,127	7,746	123.3%	114.4%	8.7%
Borrowings	107	342	782	553	595	220.5	128.5	7.7
Financial liabilities at FVTPL	5	4	5	3	10	(11.9)	21.3	243.1
Debentures	438	671	986	705	894	53.2	46.9	26.8
Lease liabilities	11	16	24	18	24	40.7	50.9	29.0
Others	34	146	306	230	253	334.4	109.0	10.2
Total interest expense	<u>₩2,636</u>	<u>₩ 5,739</u>	<u>₩11,876</u>	<u>₩ 8,637</u>	<u>₩ 9,523</u>	117.7%	106.9%	10.3%
Net interest income	₩6,151	₩ 7,609	₩ 7,917	₩ 5,965	₩ 5,783	23.7%	4.1%	(3.1)%
Net interest margin ⁽¹⁾	1.41%	1.62%	1.59%	1.61%	1.47%			

(1) Defined, on a separate basis, as net interest income (annualised for interim periods) divided by the average of the daily ending balances of interest earning assets (calculated in accordance with FSS reporting guidelines).

Comparison of the First Nine Months of 2024 to the First Nine Months of 2023

Interest Income

Our interest income increased by 4.8% from ₩14,602 billion in the nine months ended 30 September 2023 to ₩15,306 billion in the nine months ended 30 September 2024, primarily due to an increase in the average balance of loans. On a separate basis, the average balance of our interest-earning assets increased from ₩400,044 billion in the nine months ended 30 September 2023 to ₩423,773 billion in the nine months ended 30 September 2024, principally due to an increase in the average balance of loans from ₩313,937 billion in the nine months ended 30 September 2023 to ₩337,115 billion in the nine months ended 30 September 2024 and an increase in the average balance of securities from ₩71,204 billion in the nine months ended 30 September 2023 to ₩74,508 billion in the nine months ended 30 September 2024. Such increases in the average balance of loans and securities were primarily due to our efforts to attract new customers and the increase in the size of our investment portfolio. On a separate basis, our annualised average yields on interest-earning assets (defined, on a separate basis, as interest divided by the average balance of interest-earning assets) decreased from 4.47% in the nine months ended 30 September 2023 to 4.42% in the nine months ended 30 September 2024, primarily due to a decrease in the general level of interest rates in the financial markets in anticipation of a decrease in policy rates.

Interest Expenses

Our interest expenses increased by 10.3% from ₩8,637 billion in the nine months ended 30 September 2023 to ₩9,523 billion in the nine months ended 30 September 2024, primarily due to an 8.7% increase in interest expense on deposit liabilities that resulted from an increase in the average balance of deposits. On a separate basis, the average balance of our interest-bearing liabilities increased from ₩389,764 billion in the nine months ended 30 September 2023 to ₩412,240 billion in the nine months ended 30 September 2023. The increase in the average balance of our interest-bearing liabilities was principally due to an increase in the average

balance of deposits from ₩335,579 billion in the nine months ended 30 September 2023 to ₩354,563 billion in the nine months ended 30 September 2024, which was mainly due to our funding procurement strategy in response to an increase in the average balance of loans. On a separate basis, the annualised average cost of our interest-bearing liabilities increased from 2.93% in the nine months ended 30 September 2023 to 3.04% in the nine months ended 30 September 2024, primarily due to an increase in our external borrowing costs and a delay in reflecting the impact of declining market interest rates.

Net Interest Margin

Net interest margin represents the ratio of net interest income (annualised for interim periods) to the average of the daily ending balances of interest-earning assets. Our net interest margin on a separate basis decreased from 1.61% in the nine months ended 30 September 2023 to 1.47% in the nine months ended 30 September 2024, primarily due to a 5.9% increase in the average balance of interest-earning assets and a 3.1% decrease in our net interest income. Net interest spread represents the difference between the average yield (annualised for interim periods) on interest-earning assets and the average cost (annualised for interim periods) of interest-bearing liabilities. Our net interest spread on a separate basis decreased from 1.54% in the nine months ended 30 September 2023 to 1.38% in the nine months ended 30 September 2024, primarily due to a decrease in our loan yield caused by the lower general level of interest rates and an increase in the amount of our financing, which led to an increase in financing costs. Although the repricing cycle varies by specific asset or liability category, the assets follow a three- to six-month repricing cycle on average, while liabilities (which are mainly composed of deposit liabilities) have a six- to twelve-month repricing cycle on average.

Comparison of 2023 to 2022

Interest Income

Our interest income increased by 48.3% from ₩13,347 billion in 2022 to ₩19,793 billion in 2023, primarily due to a 45.6% increase in interest income from loans as a result of the higher general level of interest rates in Korea in 2023 compared to 2022, coupled with an increase in the average balance of loans. On a separate basis, the average balance of our interest-earning assets increased from ₩382,346 billion in 2022 to ₩403,446 billion in 2023, principally due to an increase in the average balance of loans from ₩305,379 billion in 2022 to ₩317,121 billion in 2023 and an increase in the average balance of securities from ₩61,394 billion in 2022 to ₩71,647 billion in 2023. Such increases in the average balance of loans and securities were primarily due to our efforts to attract new customers. On a separate basis, our average yields on interest-earning assets (defined, on a separate basis, as interest divided by the average balance of interest-earning assets) increased from 3.13% in 2022 to 4.51% in 2023, primarily due to the higher general level of interest rates in Korea in 2023 compared to 2022.

Interest Expenses

Our interest expenses increased by 106.9% from ₩5,739 billion in 2022 to ₩11,876 billion in 2023, primarily due to a 114.4% increase in interest expense on deposit liabilities as a result of the higher general level of interest rates in Korea in 2023 compared to 2022 and an increase in the average balance of deposits. On a separate basis, the average balance of our interest-bearing liabilities increased from ₩374,431 billion in 2022 to ₩392,868 billion in 2023. The increase in the average balance of our interest-bearing liabilities was principally due to an increase in the average balance of deposits from ₩318,855 billion in 2022 to ₩338,366 billion in 2023, which was mainly due to an increase in bank savings deposits as a result of higher interest rates and increased uncertainties of global economy. On a separate basis, the average cost of our interest-bearing liabilities increased from 1.54% in 2022 to 2.99% in 2023, primarily due to the higher general level of interest rates in Korea in 2023 compared to 2022.

Net Interest Margin

Our net interest margin on a separate basis decreased from 1.62% in 2022 to 1.59% in 2023, primarily due to a 5.5% increase in the average balance of interest-earning assets that outpaced a 4.1% increase in our net interest income. Our net interest spread on a separate basis decreased from 1.59% in 2022 to 1.51% in 2023, primarily due to the fact that the financial instruments we utilise for fund management have relatively shorter terms of interest rate period and therefore the effect of an increase in base interest rates was reflected quickly, whereas the same effect was slow to be reflected in the interest-bearing liabilities which have relatively longer terms.

Comparison of 2022 to 2021

Interest Income

Our interest income increased by 51.9% from ₩8,787 billion in 2021 to ₩13,347 billion in 2022, primarily due to a 50.0% increase in interest income from loans as a result of higher general level of interest rates in Korea in 2022 compared to 2021, coupled with an increase in the average balance of loans. On a separate basis, the average balance of our interest-earning assets increased from ₩341,566 billion in 2021 to ₩382,346 billion in 2022, principally due to an increase in the average balance of loans from ₩280,707 billion in 2021 to ₩305,379 billion in 2022. The average balance of loans increased primarily due to our efforts to attract large companies and SMEs as a new client base. On a separate basis, our average yields on interest-earning assets (defined, on a separate basis, as interest divided by the average balance of interest-earning assets) increased from 2.22% in 2021 to 3.13% in 2022, which primarily reflected the higher general level of interest rates in Korea in 2022 compared to 2021.

Interest Expenses

Our interest expenses increased by 117.7% from ₩2,636 billion in 2021 to ₩5,739 billion in 2022, primarily due to a 123.3% increase in interest expense on deposit liabilities as a result of higher general level of interest rates in Korea in 2022 compared to 2021 and an increase in the average balance of deposits. On a separate basis, the average balance of our interest-bearing liabilities increased from ₩336,548 billion in 2021 to ₩374,431 billion in 2022. The increase in the average balance of our interest-bearing liabilities was principally due to an increase in the average balance of deposits from ₩288,580 billion in 2021 to ₩318,855 billion in 2022, which was mainly due to an increase in bank savings deposits as a result of higher interest rates and increased uncertainties of global economy. On a separate basis, the average cost of our interest-bearing liabilities increased from 0.83% in 2021 to 1.54% in 2022, primarily due to higher general level of interest rates in Korea in 2022 compared to 2021.

Net Interest Margin

Our net interest margin on a separate basis increased from 1.41% in 2021 to 1.62% in 2022, as a 23.7% increase in our net interest income outpaced an 11.9% increase in the average balance of interest-earning assets. Our net interest spread on a separate basis also increased from 1.40% in 2021 to 1.59% in 2022, primarily due to improvements in the loan-deposit pricing and our efforts to defend the procurement portfolio against rising interest rates.

Net Fees and Commission Income

The following table sets forth the components of our net fees and commission income for the periods indicated, as well as changes in these components over such periods in percentage terms.

	Year Ended 31 December			Nine Months Ended 30 September		Percentage Change		
	2021	2022	2023	2023	2024	2021/ 2022	2022/ 2023	2023 3Q/ 2024 3Q
	(In billions of Won)					(percentage)		
Fees and commission income	₩838	₩875	₩932	₩706	₩778	4.4%	6.5%	10.3%
Fees and commission expenses	285	281	270	187	203	(1.3)	(3.9)	8.5
Net fees and commission income . . .	<u>₩553</u>	<u>₩594</u>	<u>₩661</u>	<u>₩519</u>	<u>₩575</u>	7.4%	11.4%	10.9%

Comparison of the First Nine Months of 2024 to the First Nine Months of 2023

Our net fees and commission income increased by 10.9% from ₩519 billion in the nine months ended 30 September 2023 to ₩575 billion in the nine months ended 30 September 2024, as the 10.3% increase in fees and commission income from ₩706 billion in the nine months ended 30 September 2023 to ₩778 billion in the nine months ended 30 September 2024 outpaced the 8.5% increase in fees and commission expenses from ₩187 billion in the nine months ended 30 September 2023 to ₩203 billion in the nine months ended 30 September 2024. The increase in fees and commission income was mainly attributable to an 13.5% increase in commissions received from loans and others from ₩444 billion in the nine months ended 30 September 2023 to ₩504 billion in the nine months ended 30 September 2024. The increase in commissions received from loans

and others was due to increases in commissions from our pension products and investment banking operations. The increase in fees and commission expenses was primarily due to a 6.4% increase in commissions paid for borrowings and others from ₩146 billion in the nine months ended 30 September 2023 to ₩156 billion in the nine months ended 30 September 2024.

Comparison of 2023 to 2022

Our net fees and commission income increased by 11.4% from ₩594 billion in 2022 to ₩661 billion in 2023, as fees and commission income increased by 6.5% from ₩875 billion in 2022 to ₩932 billion in 2023, while fees and commission expenses decreased by 3.9% from ₩281 billion in 2022 to ₩270 billion in 2023. The increase in fees and commission income was mainly attributable to an 11.4% increase in commissions received from loans and others from ₩522 billion in 2022 to ₩581 billion in 2023. The increase in commissions received from loans and others was due to increases in commissions from our bancassurance and trust account operations. The decrease in fees and commission expenses was primarily due to a 6.4% decrease in commissions paid borrowings and others from ₩227 billion in 2022 to ₩212 billion in 2023.

Comparison of 2022 to 2021

Our net fees and commission income increased by 7.4% from ₩553 billion in 2021 to ₩594 billion in 2022, as fees and commission income increased by 4.4% from ₩838 billion in 2021 to ₩875 billion in 2022, while fees and commission expenses decreased by 1.3% from ₩285 billion in 2021 to ₩281 billion in 2022. The increase in fees and commission income was mainly attributable to an 11.8% increase in commissions related to foreign exchange from ₩235 billion in 2021 to ₩263 billion in 2022 and an increase in commissions received on guarantees from ₩78 billion in 2021 to ₩90 billion in 2022. The increase in commissions related to foreign exchange was due to an increase in foreign exchange fees as a result of the increased volume of export and import transactions, as well as the recovery in demands for overseas travel as the pandemic situation subsides. The increase in commissions received on guarantees was due to an increase in the average balance of our acceptances and guarantees in foreign currency as a result of the increased volume of export transactions. The decrease in fees and commission expenses was primarily due to a 37.4% decrease in commissions related to foreign exchange from ₩87 billion in 2021 to ₩54 billion in 2022.

Net Gain (Loss) on Financial Instruments

The following table sets forth the components of our net gain (loss) on financial instruments for the periods indicated, as well as changes in these components over such periods in percentage terms.

	Year Ended 31 December			Nine Months Ended 30 September		Percentage Change		
	2021	2022	2023	2023	2024	2021/ 2022	2022/ 2023	2023 3Q/ 2024 3Q
	(In billions of Won)					(percentage)		
Net gain on financial instruments at FVTPL	₩549	₩125	₩492	₩312	₩425	(77.3)%	294.3%	36.0%
Net gain (loss) on derivative financial instruments used for hedging	(48)	(64)	26	(15)	1	33.3	N.M.	N.M.
Net gain on financial instruments at FVOCI	79	2	84	83	150	(97.3)	N.M.	80.6
Net gain on financial instruments at amortised cost	0	0	0	0	0	(80.0)	N.M.	0.0
Total net gain on financial instruments	₩580	₩ 63	₩603	₩380	₩575	(89.1)%	852.0%	51.5%

N.M. means not meaningful.

Comparison of the First Nine Months of 2024 to the First Nine Months of 2023

Our net gain on financial instruments increased by 51.5% from ₩380 billion in the nine months ended 30 September 2023 to ₩575 billion in the nine months ended 30 September 2024. Such increase was primarily attributable to an increase in net gain on financial instruments at fair value through profit or loss from ₩312 billion in the nine months ended 30 September 2023 to ₩425 billion in the nine months ended 30 September 2024, which was due to an increase in valuation gains driven by declining market interest rates.

Comparison of 2023 to 2022

Our net gain on financial instruments increased by 852.0% from ₩63 billion in 2022 to ₩603 billion in 2023. Such increase was primarily attributable to an increase in net gain on financial instruments at fair value through profit or loss from ₩125 billion in 2022 to ₩492 billion in 2023, which was due to an increase in gains from currency- and interest-related transaction and valuations, resulting from fluctuations in exchange rates and favourable interest rate movements in 2023.

Comparison of 2022 to 2021

Our net gain on financial instruments decreased by 89.1% from ₩580 billion in 2021 to ₩63 billion in 2022. This decrease was primarily attributable to a decrease in net gain on financial instruments at fair value through profit or loss from ₩549 billion in 2021 to ₩125 billion in 2022 and a decrease in net gain on financial instruments at fair value through other comprehensive income from ₩79 billion in 2021 to ₩2 billion in 2022, which were due to a decrease in gains from currency- and interest-related transaction and valuations, resulting from fluctuations in exchange rates and unfavourable interest rate movements in 2022.

Provision for Allowance for Credit Loss

Provision for allowance for credit loss includes provision (reversal) of credit loss of debt securities at fair value through other comprehensive income, provision for possible loan loss for debt for securities at amortised cost, provision for bad debts of loan losses and provision for bad debts of other asset losses.

Comparison of the First Nine Months of 2024 to the First Nine Months of 2023

Our provision for allowance for credit loss decreased by 59.1% from ₩537 billion in the nine months ended 30 September 2023 to ₩220 billion in the nine months ended 30 September 2024. Such decrease was primarily attributable to a 62.1% decrease in provision for bad debts of loan losses from ₩557 billion in the nine months ended 30 September 2023 to ₩211 billion in the nine months ended 30 September 2024, which was mainly caused by anticipated favourable market conditions driven by the decisions by the U.S. Federal Reserve and the Bank of Korea to lower benchmark interest rates.

Comparison of 2023 to 2022

Our provision for allowance for credit loss remained relatively stable, increasing by 0.1% from ₩658 billion in 2022 to ₩658 billion in 2023.

Comparison of 2022 to 2021

Our provision for allowance for credit loss increased by 170.3% from ₩243 billion in 2021 to ₩658 billion in 2022. Such increase was primarily attributable to a 152.9% increase in provision for bad debts of loan losses from ₩231 billion in 2021 to ₩585 billion in 2022 and a substantial increase in provision for possible loan loss for bad debts for securities at amortised cost from ₩10 billion in 2021 to ₩67 billion in 2022. The increase in provision for bad debts of loan losses was mainly due to increased provisioning in 2022 as a pre-emptive risk management strategy to prepare for a recession in global economy and high interest rate environment. The increase in provision for bad debts for securities at amortised cost was primarily due to an increase in securities at amortised cost from ₩22,468 billion in 2021 to ₩37,583 billion in 2022.

General and Administrative Expenses

Comparison of the First Nine Months of 2024 to the First Nine Months of 2023

Our general and administrative expenses in the nine months ended 30 September 2024 was ₩2,538 billion, which increased from ₩2,502 billion in the nine months ended 30 September 2023. Specifically:

- Retirement benefits-DB increased by 15.3% from ₩93 billion in the nine months ended 30 September 2023 to ₩108 billion in the nine months ended 30 September 2024, primarily due to an increase in the valuation of retirement benefit obligations caused by a decline in market interest rates.
- Depreciation increased by 4.3% from ₩287 billion in the nine months ended 30 September 2023 to ₩299 billion in the nine months ended 30 September 2024, primarily due to an increase in our assets related to the establishment of the next-generation IT system.

- Amortisation increased by 20.0% from ₩81 billion in the nine months ended 30 September 2023 to ₩97 billion in the nine months ended 30 September 2024, primarily due to an increase in our intangible assets related to the establishment of the next-generation IT system.
- Advertising expenses increased by 16.5% from ₩104 billion in the nine months ended 30 September 2023 to ₩121 billion in the nine months ended 30 September 2024, primarily due to an increase in our advertising and promotional activities, including sports sponsorships.

Such increase in general and administrative expenses was partially offset by a decrease in termination benefits by 62.7% from ₩79 billion in the nine months ended 30 September 2023 to ₩29 billion in the nine months ended 30 September 2024, primarily due to the base effect of the higher number of early retirements in the nine months ended 30 September 2023 compared the same period in 2024.

Comparison of 2023 to 2022

Our general and administrative expenses in 2023 was ₩3,449 billion, which increased from ₩3,319 billion in 2022. Specifically:

- Depreciation increased by 15.4% from ₩342 billion in 2022 to ₩395 billion in 2023, primarily due to an increase in intangible assets resulting from the recent expansion of our IT investments and a one-time increase in depreciation expense related to the disposal of our old headquarters building.
- Salaries increased by 2.5% from ₩1,615 billion in 2022 to ₩1,655 billion in 2023, primarily due to an increase in the number of employees as part of our efforts to enhance our sales capability and an increase in the salary base of our employees.

Such increase in general and administrative expenses was partially offset by a decrease in termination benefits by 27.9% from ₩177 billion in 2022 to ₩128 billion in 2023, primarily due to the base effect of the one-time implementation of a retirement programme in 2022.

Comparison of 2022 to 2021

Our general and administrative expenses in 2022 was ₩3,319 billion, which increased from ₩2,973 billion in 2021. Specifically:

- Termination benefits increased substantially from ₩2 billion in 2021 to ₩177 billion in 2022, primarily due to the effect of one-time implementation in 2022 of a retirement programme aimed to reorganise our workforce structure and enhance the efficiency of our resource management.
- Advertising expenses increased by 65.4% from ₩109 billion in 2021 to ₩181 billion in 2022, primarily due to our efforts to expand our client base.

Other Operating Income (Expenses)

The following table sets forth the components of our net other operating income (expenses) for the periods indicated, as well as changes in these components over such periods in percentage terms.

	Year Ended 31 December			Nine Months Ended 30 September		Percentage Change		
	2021	2022	2023	2023	2024	2021/ 2022	2022/ 2023	2023 3Q/ 2024 3Q
	(In billions of Won)					(percentage)		
Other operating income	₩4,791	₩7,616	₩7,934	₩5,826	₩5,103	59.0%	4.2%	(12.4)%
Other operating expenses	5,440	7,838	8,403	5,987	5,524	44.1	7.2	(7.7)
Total net other operating expenses	₩ (649)	₩ (223)	₩ (469)	₩ (161)	₩ (421)	(65.7)%	110.8%	161.5%

The principal component of our other operating income is gain on foreign exchange transaction. Other items that comprise our other operating income include gain on disposal of loans, reversal of provision for payment guarantees, reversal of allowances for unused commitments, trust commissions, gain on merchant banking accounts and dividends income.

The principal component of our other operating expenses is loss on foreign exchange transaction. Other items that comprise our other operating expenses include loss on disposal of loans, provision of payment guarantees transferred, provisions for unused commitments, provisions for other allowances, contribution to Korea Credit Guarantee Fund, insurance fee on deposit and loss on merchant banking accounts.

Comparison of the First Nine Months of 2024 to the First Nine Months of 2023

Our net other operating expenses increased by 161.5% from ₩161 billion in the nine months ended 30 September 2023 to ₩421 billion in the nine months ended 30 September 2024.

Our other operating income decreased by 12.4% from ₩5,826 billion in the nine months ended 30 September 2023 to ₩5,103 billion in the nine months ended 30 September 2024, primarily due to a 13.1% decrease in gain on foreign exchange transaction from ₩5,366 billion in the nine months ended 30 September 2023 to ₩4,661 billion in the nine months ended 30 September 2024 as a result of fluctuations in foreign exchange rates.

Our other operating expenses decreased by 7.7% from ₩5,987 billion in the nine months ended 30 September 2023 to ₩5,524 billion in the nine months ended 30 September 2024, primarily due to an decrease in loss on foreign exchange transaction from ₩5,117 billion in the nine months ended 30 September 2023 to ₩4,564 billion in the nine months ended 30 September 2024, which was mainly caused by fluctuations in foreign exchange rates.

On a net basis, our net gain on foreign exchange transaction decreased by 60.8% from ₩249 billion in the nine months ended 30 September 2023 to ₩98 billion in the nine months ended 30 September 2024. In terms of the Market Average Exchange Rate, the Won depreciated from Won 1,267.3 to US\$1.00 as of 31 December 2022 to Won 1,344.8 to US\$1.00 as of 30 September 2023, while it depreciated from Won 1,289.4 to US\$1.00 as of 31 December 2023 to Won 1,319.6 to US\$1.00 as of 30 September 2024. In addition, the average value of the Market Average Exchange Rate depreciated from Won 1,300.3 to US\$1.00 in the nine months ended 30 September 2023 to Won 1,352.9 to US\$1.00 in the nine months ended 30 September 2024.

Comparison of 2023 to 2022

Our net other operating expenses increased by 110.8% from ₩223 billion in 2022 to ₩469 billion in 2023.

Our other operating income increased by 4.2% from ₩7,616 billion in 2022 to ₩7,934 billion in 2023, primarily due to a 2.9% increase in gain on foreign exchange transaction from ₩7,170 billion in 2022 to ₩7,375 billion in 2023 as a result of fluctuations in foreign exchange rate.

Our other operating expenses increased by 7.2% from ₩7,838 billion in 2022 to ₩8,403 billion in 2023, primarily due to an increase in provision for other allowances from nil in 2022 to ₩182 billion in 2023 and a 3.5% increase in loss on foreign exchange transaction from ₩6,794 billion in 2022 to ₩7,035 billion in 2023. The increase in provision of payment guarantees transferred was mainly due to new allowances we set aside in response to our participation in the Government-led initiatives, together with other commercial banks in Korea, to commit a relief measure to relieve the financially vulnerable groups affected by the COVID-19 pandemic of the burden of high-interest rates. The increase in loss on foreign exchange transaction was mainly due to fluctuations in foreign exchange rate.

On a net basis, our net gain on foreign exchange transaction decreased by 9.7% from ₩376 billion in 2022 to ₩339 billion in 2023. In terms of the Market Average Exchange Rate, the Won depreciated from Won 1,267.3 to US\$1.00 as of 31 December 2022 to Won 1,289.4 to US\$1.00 as of 31 December 2023. In 2023, the Market Average Exchange Rate ranged between Won 1,219.3 and Won 1,360.6 per US\$1.00.

Comparison of 2022 to 2021

Our net other operating expenses decreased by 65.7% from ₩649 billion in 2021 to ₩223 billion in 2022.

Our other operating income increased by 59.0% from ₩4,791 billion in 2021 to ₩7,616 billion in 2022. The increase was mainly attributable to a 64.9% increase in gain on foreign exchange transaction from ₩4,348 billion in 2021 to ₩7,170 billion in 2022 induced by fluctuations in foreign exchange rate.

Our other operating expenses increased by 44.1% from ₩5,440 billion in 2021 to ₩7,838 billion in 2022. This increase was primarily attributable to a 49.2% increase in loss on foreign exchange transaction from ₩4,554 billion in 2021 to ₩6,794 billion in 2022 induced by fluctuations in foreign exchange rate.

On a net basis, we recorded a net gain on foreign exchange transaction of ₩376 billion in 2022, compared to a net loss on foreign exchange transaction of ₩206 billion in 2021. Both the gain and loss on foreign exchange transaction increased in 2022 compared to 2021 due primarily to fluctuations in foreign exchange rate. In terms of the Market Average Exchange Rate, the Won depreciated from Won 1,185.5 to US\$1.00 as of 31 December 2021 to Won 1,267.3 to US\$1.00 as of 31 December 2022. In 2022, the Market Average Exchange Rate ranged between Won 1,185.5 and Won 1,436.6 per US\$1.00.

Non-operating Income (Expenses)

Non-operating income principally includes rental fee income, gain on disposal of property and equipment, gain on disposal of investment properties, gain on disposal of intangible assets, reversal of impairment of intangible assets, gain on disposal of non-current assets held for sale, gain on disposal of investments in associates, gain on equity method and gain on termination of right-of-use assets.

Non-operating expenses principally include loss on disposal of property and equipment, impairment loss on property and equipment, loss on disposal of investment properties, impairment loss on investment properties, loss on disposal of intangible asset, impairment loss on intangible asset, loss on equity method, collection expenses for written-off claims, collection commissions for written-off claims, loss on disposal of investments in associates, impairment loss on investments in associates, loss on termination of right-of-use assets and donations.

Comparison of the First Nine Months of 2024 to the First Nine Months of 2023

Our net non-operating expenses increased by 594.7% from ₩14 billion in the nine months ended 30 September 2023 to ₩94 billion in the nine months ended 30 September 2024.

Our non-operating income increased by 40.5% from ₩146 billion in the nine months ended 30 September 2023 to ₩205 billion in the nine months ended 30 September 2024, primarily due to a ₩39 billion increase in gain on equity method, mainly caused by an increase in the valuation of our overseas investments.

Our non-operating expenses increased by 87.6% from ₩160 billion in the nine months ended 30 September 2023 to ₩299 billion in the nine months ended 30 September 2024, primarily due to a ₩78 billion increase in donations mainly caused by our efforts to strengthen ESG management, as well as a ₩66 billion increase in other non-operating expenses primarily due to loss reserves we set side in March 2024 in connection with the sale of HK ELS Products (defined in “Hana Bank—Legal and Regulatory Proceedings”).

Comparison of 2023 to 2022

Our net non-operating income decreased by 92.8% from ₩105 billion in 2022 to ₩8 billion in 2023.

Our non-operating income decreased by 16.7% from ₩267 billion in 2022 to ₩223 billion in 2023, primarily due to a ₩42 billion decrease in gain on equity method, mainly caused by a decrease in profit of BIDV, our equity investee in Vietnam.

Our non-operating expenses increased by 32.4% from ₩162 billion in 2022 to ₩215 billion in 2023, primarily due to a ₩67 billion increase in donations, mainly caused by our efforts to strengthen ESG management.

Comparison of 2022 to 2021

Our net non-operating income increased by 74.7% from ₩60 billion in 2021 to ₩105 billion in 2022.

Our non-operating income increased by 12.4% from ₩238 billion in 2021 to ₩267 billion in 2022. Such increase was primarily attributable to a ₩85 billion increase in gain on equity method, reflecting gains from our equity investments in the Bank for Investment and Development of Vietnam (“BIDV”).

Our non-operating expenses decreased by 8.7% from ₩178 billion in 2021 to ₩162 billion in 2022, primarily due to a ₩13 billion decrease in donations in 2022 compared to 2021.

Income Tax Expenses

Comparison of the First Nine Months of 2024 to the First Nine Months of 2023

Our income tax expenses decreased by 0.6% from ₩875 billion in the nine months ended 30 September 2023 to ₩871 billion in the nine months ended 30 September 2024, primarily due to a 2.3% decrease in current income taxes from ₩757 billion in the nine months ended 30 September 2023 to ₩740 billion in the nine months ended 30 September 2024, which was partially offset by an increase in the changes in deferred tax assets from ₩324 billion in the nine months ended 30 September 2023 to ₩339 billion in the nine months ended 30 September 2024. Our effective income tax rate was 24.0% in the nine months ended 30 September 2023 and 23.8% in the nine months ended 30 September 2024, compared to the maximum statutory tax rate of 26.4% in Korea for both periods.

See Note 47 of the notes to our consolidated financial statements for the nine months ended 30 September 2024 and 2023 included elsewhere in this Offering Circular.

Comparison of 2023 to 2022

Our income tax expenses increased by 6.2% from ₩1,060 billion in 2022 to ₩1,126 billion in 2023, primarily due to the effect of recognising changes in deferred tax assets of ₩433 billion in 2023, compared to changes in deferred tax liabilities of ₩282 billion in 2022, which was partially offset by a 19.7% decrease in current income taxes from ₩1,214 billion in 2022 to ₩975 billion in 2023. Our effective income tax rate was 25.4% in 2022 and 24.4% in 2023, compared to the maximum statutory tax rate of 27.5% and 26.4% in Korea in 2022 and 2023, respectively.

See Note 47 of the notes to our consolidated financial statements for the years ended 31 December 2023 and 2022 included elsewhere in this Offering Circular.

Comparison of 2022 to 2021

Our income tax expenses increased by 17.4% from ₩903 billion in 2021 to ₩1,060 billion in 2022, primarily due to a 19.4% increase in current income taxes for the period from ₩1,017 billion in 2021 to ₩1,214 billion in 2022 and a substantial increase in income tax directly recognised in equity from ₩37 billion in 2021 to ₩224 billion in 2022. Our effective income tax rate was 26.0% in 2021 and 25.4% in 2022, compared to the statutory tax rate of 27.5% in Korea in 2021 and 2022.

See Note 47 of the notes to our consolidated financial statements for the years ended 31 December 2022 and 2021 included elsewhere in this Offering Circular.

Net Income

Due to the factors described above, our net income was ₩2,575 billion in 2021, ₩3,112 billion in 2022 and ₩3,487 billion in 2023. Our net income was ₩2,775 billion for the first nine months of 2023 and ₩2,790 billion for the first nine months of 2024.

Financial Condition

Assets

The following table sets forth the principal components of our assets as of the dates indicated, as well as changes in these components over such dates in percentage terms.

	As of 31 December			As of	Percentage Change		
	2021	2022	2023	30 September	2021/ 2022	2022/ 2023	31 December 2023/ 30 September 2024
	<i>(In billions of Won)</i>				<i>(percentage)</i>		
Cash and due from banks . .	₩ 27,694	₩ 41,088	₩ 30,564	₩ 37,008	48.4%	(25.6)%	21.1%
Financial assets at							
FVTPL	10,919	18,455	17,515	21,083	69.0	(5.1)	20.4
Derivative assets used for							
hedging	69	8	2	36	(88.3)	(78.6)	N.M.
Financial assets at							
FVOCI	35,234	32,961	36,894	31,418	(6.5)	11.9	(14.8)
Securities at amortised							
cost	22,468	37,583	36,338	35,078	67.3	(3.3)	(3.5)
Loans	309,178	330,186	347,247	363,074	6.8	5.2	4.6
Property and equipment . . .	2,004	2,426	2,415	2,605	21.0	(0.4)	7.8
Miscellaneous assets(1) . . .	22,628	22,601	27,868	33,626	(0.1)	23.3	20.7
Total assets	₩430,194	₩485,308	₩498,843	₩523,928	12.8%	2.8%	5.0%

(1) Includes investments in associates and a joint venture, investment properties, intangible assets, net defined benefit assets, current tax assets, deferred tax assets, other assets, merchant banking account assets and non-current assets held for sale.

N.M. means not meaningful.

For further information on our assets, see “*Description of Assets and Liabilities.*”

Comparison as of 30 September 2024 to 31 December 2023

Our total assets increased by 5.0% from ₩498,843 billion as of 31 December 2023 to ₩523,928 billion as of 30 September 2024, mainly due to increases in loans and financial assets at fair value through profit or loss. Our cash and due from banks increased by 21.1% from ₩30,564 billion as of 31 December 2023 to ₩37,008 billion as of 30 September 2024, primarily due to an increase in the amount of reserves on deposits in compliance with enhanced regulatory requirements. Our loans increased by 4.6% from ₩347,247 billion as of 31 December 2023 to ₩363,074 billion as of 30 September 2024, primarily due to an increase in loans extended to corporate and household borrowers. Our financial assets at fair value through profit or loss increased by 20.4% from ₩17,515 billion as of 31 December 2023 to ₩21,083 billion as of 30 September 2024, primarily due to an increase in our bond purchases in anticipation of a decrease in the general level of interest rates. Such increases were partially offset by a 14.8% decrease in financial assets at fair value through other comprehensive income from ₩36,894 billion as of 31 December 2023 to ₩31,418 billion as of 30 September 2024, which was mainly caused by the realisation of gains from bond trading in response to a decrease in market interest rates.

Comparison as of 31 December 2023 to 31 December 2022

Our total assets increased by 2.8% from ₩485,308 billion as of 31 December 2022 to ₩498,843 billion as of 31 December 2023, mainly due to increases in loans and financial assets at fair value through other comprehensive income. Our loans increased by 5.2% from ₩330,186 billion as of 31 December 2022 to ₩347,247 billion as of 31 December 2023, primarily due to an increase in loans extended to corporate borrowers. Our financial assets at fair value through other comprehensive income increased by 11.9% from ₩32,961 billion as of 31 December 2022 to ₩36,894 billion as of 31 December 2023, primarily due to our proactive efforts to enhance our gains in the high-interest-rate environment. Such increases were partially offset by a 3.3% decrease in securities at amortised cost from ₩37,583 billion in 2022 to ₩36,338 billion in 2023, primarily due to bonds reaching maturity.

Comparison as of 31 December 2022 to 31 December 2021

Our total assets increased by 12.8% from ₩430,194 billion as of 31 December 2021 to ₩485,308 billion as of 31 December 2022, mainly due to an increase in loans, an increase in securities at amortised cost and an increase in financial assets at fair value through profit or loss. Our loans increased by 6.8% from ₩309,178 billion as of 31 December 2021 to ₩330,186 billion as of 31 December 2022, primarily due to our efforts to increase interest-earning assets with good quality. Our securities at amortised cost increased by 67.3% from ₩22,468 billion as of 31 December 2021 to ₩37,583 billion as of 31 December 2022, primarily due to changes in asset allocations to cope with rising interest rates. Our financial assets at fair value through profit or loss increased by 69.0% from ₩10,919 billion as of 31 December 2021 to ₩18,455 billion as of 31 December 2022, mainly due to our efforts to minimise loss on valuation in anticipation of the rising interest rates. Such increases were partially offset by a decrease in financial assets at fair value through other comprehensive income. Our financial assets at fair value through other comprehensive income decreased by 6.5% from ₩35,234 billion as of 31 December 2021 to ₩32,961 billion as of 31 December 2022, primarily as a result of changes in our asset allocations and rising interest rates.

Liabilities and Equity

The following table sets forth the principal components of our liabilities and equity as of the dates indicated, as well as changes in these components over such dates in percentage terms.

	As of 31 December			As of 30 September	Percentage Change		
	2021	2022	2023	2024	2021/ 2022	2022/ 2023	31 December 2023/ 30 September 2024
	(In billions of Won)				(percentage)		
Liabilities							
Deposits	₩321,125	₩359,858	₩369,749	₩380,526	12.1%	2.7%	2.9%
Financial liabilities at FVTPL	4,188	11,228	6,729	6,393	168.1	(40.1)	(5.0)
Derivative liabilities used for							
hedging	111	516	391	285	364.4	(24.3)	(27.0)
Borrowings	17,524	22,257	22,034	23,049	27.0	(1.0)	4.6
Debentures	27,700	26,233	26,542	29,171	(5.3)	1.2	9.9
Miscellaneous liabilities ⁽¹⁾	30,788	35,250	41,313	51,071	14.5	17.2	23.6
Total liabilities	₩401,437	₩455,342	₩466,759	₩490,495	13.4%	2.5%	5.1%
Equity							
Capital stock	₩ 5,360	₩ 5,360	₩ 5,360	₩ 5,360	— %	— %	— %
Capital surplus	9,654	6,160	6,161	6,161	(36.2)	0.0	—
Hybrid equity securities	533	533	354	354	—	(33.7)	—
Capital adjustments	(38)	(38)	(38)	(38)	(1.5)	0.6	(0.7)
Retained earnings	13,897	19,236	21,050	22,008	38.4	9.4	4.6
Accumulated other comprehensive loss	(916)	(1,566)	(1,104)	(733)	70.9	(29.5)	(33.6)
Equity attributable to equity owner of the parent	28,490	29,686	31,783	33,112	4.2	7.1	4.2
Non-controlling interests	266	279	302	321	4.8	7.9	6.6
Total equity	₩ 28,756	₩ 29,965	₩ 32,084	₩ 33,434	4.2	7.1	4.2%
Total liabilities and equity	₩430,194	₩485,308	₩498,943	₩523,928	12.8%	2.8%	5.0%

(1) Includes net defined benefit liabilities, provisions, current tax liabilities, deferred tax liabilities, other liabilities and merchant banking account liabilities.

For further information on our liabilities, see “Description of Assets and Liabilities.”

Comparison as of 30 September 2024 to 31 December 2023

Our total liabilities increased by 5.1% from ₩466,759 billion as of 31 December 2023 to ₩490,495 billion as of 30 September 2024, principally as a result of an increase in deposits and, to a lesser extent, increases in borrowings and debentures. Our deposits increased by 2.9% from ₩369,749 billion as of 31 December 2023 to

₩380,526 billion as of 30 September 2024, primarily due to an increase in bank savings deposits as a result of increased uncertainties of global economy. Our borrowings increased by 4.6% from ₩22,034 billion as of 31 December 2023 to ₩23,049 billion as of 30 September 2024, primarily due to an increase in our financing amount to mitigate interest rate risks and comply with regulatory liquidity requirements. Our debentures increased by 9.9% from ₩26,542 billion as of 31 December 2023 to ₩29,171 billion as of 30 September 2024, primarily due to an increase in our financial bond issuance in anticipation of a benchmark interest rate cut. Our total equity increased by 4.2% from ₩32,084 billion as of 31 December 2023 to ₩33,434 billion as of 30 September 2024, primarily due to an increase in retained earnings from ₩21,050 billion as of 31 December 2023 to ₩22,008 billion as of 30 September 2024 as a result of an increase in our net income.

Comparison as of 31 December 2023 to 31 December 2022

Our total liabilities increased by 2.5% from ₩455,342 billion as of 31 December 2022 to ₩466,759 billion as of 31 December 2023, primarily due to a 2.7% increase in deposits from ₩359,858 billion in 2022 to ₩369,749 billion in 2023. The increase in deposits was due to an increase in bank savings deposits as a result of higher interest rates and increased uncertainties of global economy. Such increase was partially offset by a 40.1% decrease in financial liabilities at fair value through profit or loss from ₩11,228 billion in 2022 to ₩6,729 billion in 2023, which was mainly caused by the fluctuations in interest rates and changes in our liability management structure to respond to such fluctuations. Our total equity increased by 7.1% from ₩29,965 billion as of 31 December 2022 to ₩32,084 billion as of 31 December 2023, primarily due to an increase in retained earnings from ₩19,236 billion as of 31 December 2022 to ₩21,050 billion as of 31 December 2023 as a result of an increase in our net income.

Comparison as of 31 December 2022 to 31 December 2021

Our total liabilities increased by 13.4% from ₩401,437 billion as of 31 December 2021 to ₩455,342 billion as of 31 December 2022, principally as a result of an increase in deposits and, to a lesser extent, increases in financial liabilities at fair value through profit or loss and borrowings. Our deposits increased by 12.1% from ₩321,125 billion as of 31 December 2021 to ₩359,858 billion as of 31 December 2022, due to an increase in procurement liabilities accompanying our efforts to expand assets, as well as an increase in bank saving deposits in response to higher interest rates and increased uncertainties of global economy. Our financial liabilities at fair value through profit or loss increased by 168.1% from ₩4,188 billion as of 31 December 2021 to ₩11,228 billion as of 31 December 2022, due to the management of our liability structure as well as fluctuations in interest rates. Our borrowings increased by 27.0% from ₩17,524 billion as of 31 December 2021 to ₩22,257 billion as of 31 December 2022, primarily due to our proactive financing in response to rising interest rates. Our total equity increased by 4.2% from ₩28,756 billion as of 31 December 2021 to ₩29,965 billion as of 31 December 2022, principally due to an increase in retained earnings from ₩13,897 billion as of 31 December 2021 to ₩19,236 billion as of 31 December 2022 as a result of an increase in net income and the conversion of our capital surplus into retained earnings, despite dividend payments.

Liquidity and Capital Resources

We are exposed to liquidity risk arising from withdrawals of deposits and maturities of our borrowings and debentures, as well as our need to fund our lending, trading and investment activities and to manage our trading positions. Our goal in managing liquidity is to be able, even under adverse conditions, to meet all of our liability repayments on time and to fund all investment opportunities. For a discussion of how we manage liquidity risk, see “Risk Management – Market Risk Management – Non-Trading Activities – Liquidity Risk Management” and Note 8 of the notes to our consolidated financial statements appearing elsewhere in this Offering Circular. In our opinion, we have sufficient working capital to meet our requirements for the next 12 months.

The following table sets forth our source of capital as of the dates indicated.

	As of 31 December			As of
	2021	2022	2023	30 September
	(In billions of Won)			2024
Deposits	₩321,125	₩359,858	₩369,749	₩380,526
Borrowings in Korean Won	9,886	10,732	10,420	11,257
Borrowings denominated in foreign currencies	5,443	10,045	9,519	9,353
Call money	1,092	971	934	1,212
Bonds sold under repurchase agreements	1,079	488	1,141	1,211
Bills sold	26	26	27	22
Debentures in Korean Won	21,703	20,359	20,341	23,417
Debentures in foreign currencies	5,997	5,875	6,201	5,754
Capital stock	5,360	5,360	5,360	5,360
Total	₩371,711	₩413,714	₩423,692	₩438,112

Our primary source of funding has historically been and continues to be customer deposits. Deposits amounted to ₩321,125 billion as of 31 December 2021, ₩359,858 billion as of 31 December 2022, ₩369,749 billion as of 31 December 2023 and ₩380,526 billion as of 30 September 2024, which represented 86.4%, 87.0%, 87.3% and 86.9%, respectively, of our total funding as of each relevant date.

As customers typically roll over a substantial majority of deposits upon maturity, deposits have generally been a stable source of funding for us. However, in times of a bullish stock market, customers tend to transfer a significant amount of bank deposits to alternative investment products, such as money market funds and other brokerage accounts maintained at securities companies, in search of higher returns, which may result in temporary difficulties in finding sufficient funding for Korean banks in general, including us. On the other hand, when the economy shows signs of slowing down, customers generally revert back to bank deposits as their investment priorities shift to maintaining the safety of their principal and stable returns, and deposits also increase due to an overall increase in liquidity from more expansionary fiscal and monetary policies designed to stimulate the economy. We cannot assure you that there will not be significant outflows in bank deposits in the future resulting from upturns in the stock market, the availability of other attractive investment alternatives or a tightening in market liquidity. While we are not facing liquidity difficulties currently, if we are unable to obtain the funding we need on terms commercially acceptable to us for an extended period of time, we may not be able to ensure our financial viability, meet regulatory requirements, implement our strategies or compete effectively.

We may use secondary and other funding sources, such as issuances of debt and equity securities, denominated in both Won and foreign currencies, to complement, or if necessary, replace, funding through customer deposits. We depend on borrowings in foreign currencies as a significant source of funding, principally in the form of corporate debt securities denominated in foreign currencies. As of 31 December 2021, 2022 and 2023 and 30 September 2024, our borrowings in foreign currencies amounted to ₩5,443 billion, ₩10,045 billion, ₩9,519 billion and ₩9,353 billion, respectively. Secondary funding sources also include call money and bonds denominated in both Won and foreign currencies, which in the aggregate amounted to ₩28,791 billion, ₩27,204 billion, ₩27,476 billion and ₩30,383 billion as of 31 December 2021, 2022 and 2023 and 30 September 2024, respectively, representing 7.7%, 6.6%, 6.5% and 6.9% of our total funding as of each relevant date, respectively.

For a description of liquidity requirements, see “*Regulation and Supervision – Principal Regulations Applicable to Banks – Liquidity.*”

Cash Flows

The following table sets forth, for the periods indicated, the principal components of our cash flows.

	Year Ended 31 December			Nine Months Ended 30 September	
	2021	2022	2023	2023	2024
	(In billions of Won)				
Net cash flows provided by (used in) operating activities	₩ 8,312	₩ 27,163	₩ (4,229)	₩ (8,468)	₩ 314
Net cash flows provided by (used in) investing activities	(7,277)	(14,765)	(2,506)	(3,809)	5,857
Net cash flows provided by (used in) financing activities	1,450	1,023	(3,266)	(2,104)	727
Net increase (decrease) in cash and cash equivalents	2,486	13,421	(10,001)	(14,382)	6,898
Cash and cash equivalents at the beginning of the period	22,354	25,479	38,500	38,500	28,282
Effect of exchange rate changes on cash and cash equivalents	639	(399)	(217)	425	(404)
Cash and cash equivalents at the end of the period	₩25,479	₩ 38,500	₩ 28,282	₩ 24,544	₩34,776

Contractual Obligations

In our ordinary course of business, we make certain contractual cash obligations and commitments which extend for several years. As we are able to obtain liquidity and funding through various sources as described in “– *Liquidity and Capital Resources*” above, we do not believe that these contractual cash obligations and commitments will have a material effect on our liquidity or capital resources. The following table sets forth our contractual cash obligations as of 30 September 2024.

Payments Due by Period (as of 30 September 2024)							
	Immediate Payment	Less than 1 month	1 – 3 months	3 months – 1 year	1 year – 5 years	More than 5 years	Total
(In billions of Won)							
On-balance accounts:							
Financial liabilities at							
FVTPL	₩ 5,962	₩ —	₩ —	₩ —	₩ —	₩ 653	₩ 6,614
Deposits	151,631	34,782	56,885	125,008	18,360	1,600	388,265
Borrowings	4,781	5,624	2,520	6,182	3,616	622	23,346
Debentures	89	1,548	1,780	8,165	15,778	2,461	29,821
Net liabilities of							
derivatives used for							
hedging	—	28	13	80	303	(481)	(56)
Other financial							
liabilities	8,735	29,467	1	29	27	4	38,263
Merchant banking account							
liabilities	1,138	3,132	—	—	—	—	4,270
Sub-total	₩172,335	₩74,581	₩61,199	₩139,463	₩38,085	₩4,859	₩490,523
Off-balance accounts:							
Financial guarantee	₩ 420	₩ —	₩ —	₩ —	₩ —	₩ —	₩ 420
Payment guarantee	25,010	—	—	—	—	—	25,010
Loan commitment	114,907	—	—	—	—	—	114,907
Merchant banking							
account-commitment ..	660	—	—	—	—	—	660
Sub-total	140,996	—	—	—	—	—	140,996
Total	₩313,331	₩74,581	₩61,199	₩139,463	₩38,085	₩4,859	₩631,519

Commitments and Guarantees

For a description of our commitments and guarantees, see “*Description of Assets and Liabilities – Commitments and Guarantees.*”

Off-Balance Sheet Arrangements

We have several types of off-balance sheet arrangements, including guarantees for loans, bonds, trade financing arrangements, guarantees for other financings, credit lines, letters of credit and credit commitments.

Details of our off-balance sheet arrangements are provided in Note 8 of the notes to our consolidated financial statements included in this Offering Circular.

HANA BANK

Introduction

We are one of the leading commercial banks in Korea in terms of total assets, revenues, profitability and capital adequacy. As of 30 September 2024, we had total assets, total net loans (after allowance for loan losses and net deferred loan fees and expenses), total deposits and total equity of ₩523.9 trillion, ₩363.1 trillion, ₩380.5 trillion and ₩33.4 trillion, respectively.

As a full-service financial institution, we operate an extensive nationwide and overseas banking network, consisting of 601 domestic branches and sub-branches, as well as 19 international branches, one sub-branch of such international branches, five overseas representative offices, 11 overseas subsidiaries and 78 sub-branches of such overseas subsidiaries as of 30 September 2024. Our overseas operations span across 26 countries outside of Korea, the most among all major commercial banks in Korea.

We also operated over 3,523 ATMs throughout Korea as of 30 September 2024, and offer Internet and mobile banking services. Through this nationwide and global network, we serve corporate and retail customers with a full complement of banking and financial services. We continue to hold strong market positions in the business segments where we have historically maintained competitive strengths, such as large corporate banking, foreign exchange and trade financing, and following the Merger, we have also gained a leading position in other business areas, such as retail banking, private banking and wealth management. Our leading presence in the market has been widely recognised by a number of significant industry awards over the years. In 2024, we received the “Best Bank in Korea”, the “Best Trade Finance Provider in Korea”, the “Best Foreign Exchange Bank in Korea”, the “Best Private Bank in Korea” and the “Most Innovative Private Bank in the World” awards from Global Finance Magazine and the “Best Bank in Korea” and the “Best Private Bank in Korea” awards from Euromoney Magazine. In 2023, we received the “Best Private Bank in Korea” award from The Banker, the “Best Bank in Korea”, the “Best Sub-Custodian Bank in Korea”, the “Best Foreign Exchange Bank in Korea” and the “Best Trade Finance Provider in Korea” awards from Global Finance Magazine and the “Best Private Bank in Korea” award from Euromoney Magazine. In 2022, we received the “Best Bank in Korea”, the “Best Trade Finance Provider in Korea” and the “Best Private Bank in Korea” awards from Global Finance Magazine, the “Best Private Bank in Korea” award from Euromoney Magazine and the “Best Bank in Korea” and the “Innovation in Digital Banking” awards from The Banker.

History

We were established in September 2015 through a merger of Original Hana Bank, the flagship commercial bank of Hana Financial Group, with Korea Exchange Bank, which was acquired by Hana Financial Group in February 2012 (the “**Merger**”). Upon completion of the Merger, Korea Exchange Bank as the surviving entity changed its name to KEB Hana Bank. In February 2020, we changed our brand name to “Hana Bank” while maintaining “KEB Hana Bank” as our legal name.

Original Hana Bank was founded in 1971 as Korea’s first short-term finance and investment company. It obtained a commercial banking licence in 1991 and evolved into a full-service commercial bank, serving on a nationwide basis the three principal Korean banking market segments: large corporates, SMEs and households. Original Hana Bank expanded its operations, assets and deposit and customer bases primarily through mergers and acquisitions. It acquired certain assets and liabilities of Chungchong Bank in June 1998 and merged with Boram Bank in January 1999. Through the merger with Boram Bank, Original Hana Bank also strengthened its leading position in the high net-worth individuals market segment. Original Hana Bank continued its expansion by merging with Seoul Bank, then one of the largest commercial banks in Korea, in December 2002. Following the introduction of the Financial Holding Companies Act of Korea, Hana Financial Group was established in December 2005 and Original Hana Bank became the wholly-owned principal banking subsidiary of the group.

Korea Exchange Bank was established in 1967, pursuant to the Korea Exchange Bank Act, as a wholly Government-owned bank specialising in the foreign exchange and international trade finance businesses. Until 1977, Korea Exchange Bank was the only Korean bank to offer trade financing and foreign exchange services. Following the loss of its monopoly in trade financing and foreign exchange, Korea Exchange Bank expanded its operations and diversified its activities to include a full range of commercial banking services, through expansion of its branch network and diversification of its customer base and financial product and service offerings. Korea Exchange Bank was privatised in 1989 with the repeal of the Korea Exchange Bank Act, and its shares were first offered for public ownership in 1991. Its common stock, which was listed on the KRX

KOSPI Market in 1994, was delisted in April 2013 when Hana Financial Group acquired the remaining 42.73% stake in Korea Exchange Bank and became the beneficial owner of 100% of its issued and outstanding share capital. Until the Merger, Korea Exchange Bank remained independent from other member companies of Hana Financial Group with respect to its business, including its brand, employment and wage systems. In January 2019, we completed the operational and system integration of Korea Exchange Bank and Original Hana Bank.

Business

Corporate Banking

Overview

We provide comprehensive commercial banking services in Korea to corporate customers, ranging from SMEs to large corporations, including the member companies of Korea's major *chaebols*. Our corporate banking operations include lending to and taking deposits from our corporate customers, mostly in Won. As of 30 September 2024, our corporate loans (comprising loans to large-sized businesses, SMEs and public sector and others; before allowance for loan losses and net deferred loan fees and expenses) amounted to ₩227.8 trillion, accounting for 62.5% of our total loans. We also provide our corporate customers with a variety of fee- and commission-based services, such as investment banking and foreign exchange transactions. We focus our efforts on increasing our corporate exposure to so called "blue-chip" companies with low credit risk profiles, regardless of their size, and decreasing our corporate exposure to the companies with high credit risk profiles so as to improve our asset quality.

The following table sets forth the balances and percentages of the total loans (before allowance for loan losses and net deferred loan fees and costs) attributable to each category of our corporate lending business.

	As of 31 December						As of 30 September	
	2021		2022		2023		2024	
	Amount	%	Amount	%	Amount	%	Amount	%
<i>(In billions of Won, except percentages)</i>								
Large-sized businesses	₩ 41,137	23.2%	₩ 49,305	24.8%	₩ 52,615	24.2%	₩ 56,248	24.7%
SMEs	118,140	66.7	129,743	65.2	143,439	66.1	146,394	64.3
Public sector and others	17,754	10.0	19,908	10.0	20,929	9.6	25,169	11.0
Total corporate loans	₩177,031	100.0%	₩198,956	100.0%	₩216,982	100.0%	₩227,810	100.0%

Large Corporate Banking

We pursue a focused, profit-oriented marketing approach toward large corporate customers. In particular, we orient our large corporate banking business around a fee-based income structure, offering a broad range of fee-earning products and services, rather than simply providing traditional lending services. Our large corporate banking business strategy includes developing new products and services, as well as cross-selling existing fee-based products and services to our core large corporate customers. As a result, we have increased the volume and proportion of our fee income from corporate banking areas such as investment banking, financial advisory services and derivatives transactions.

We also use our advanced customer relationship management technology, which allows us to segment customers by creditworthiness and profitability and identify high-quality large corporate customers on whom we can concentrate our marketing efforts. This technology also allows us to automate the pricing of products and services accordingly.

We market to potential large corporate banking customers primarily through our senior relationship managers and relationship managers, all of whom are sales professionals specifically dedicated to marketing to high credit large corporate customers.

Small- and Medium-Sized Enterprise Banking

The SME segment of the corporate banking market has grown significantly in recent years, primarily as a result of the Government's measures to encourage lending to those enterprises. As of 30 September 2024, our corporate loans to SMEs (before allowance for loan losses and net deferred loan fees and costs) amounted to ₩146.4 trillion, accounting for 40.1% of our total loans. We pursue a selective loan strategy that focuses on identifying and marketing to SME borrowers with low credit risk profiles based on our internal credit risk assessment.

Retail Banking

Overview

We offer a wide range of retail banking services in Korea through our national network of local branches and digital banking platform. While our retail banking operations are focused primarily on retail lending and deposit-taking activities, we also provide an array of ancillary fee-based services.

Our retail banking services include mortgage and retail lending, as well as demand, savings and time deposit-taking, digital banking (consisting of Internet and mobile banking services), bill paying services and payroll services.

We not only view retail banking as a significant source of income, but also believe that it is a business area through which we may further enhance our brand recognition as a customer-oriented provider of comprehensive banking services. In order to better understand, serve and market to our retail clients, we have increased our efforts to improve our marketing strategies and implement a customer management system which will allow us to target more effectively the various customer groups based on each customer's financial needs, career and current marital status. We assess the marketing procedures operating between our branches and headquarters in order to enhance the efficiency of our marketing strategies and have been recognised by retail customers for our superior banking services. In April 2020, we were awarded the 2020 Top Consumer Recommended Brand Awards Grand Prize for open banking category, sponsored by Ministry of Trade, Industry and Energy. In 2022, we received the "Innovation in Digital Banking" award from The Banker. In May 2023, "Hana Hap," our MyData-based asset management service application, was awarded the Service Marketing Awards Grand Prize from the Service Marketing Academic Society. In July 2024, we were selected as the Best Bank in the Customer Contact category of the Korean Service Quality Index conducted by Korean Management Association Consulting for the ninth consecutive year. Most recently in October 2024, we were recognised as an "outstanding provider" of retirement pension products and received an award from the Minister of Employment and Labour.

The following table sets forth our deposit portfolio on a separate basis as of the dates indicated.

	Year Ended 31 December								
	2021			2022			2023		
	Average Balance	Interest Expense	Average Rate Paid ⁽¹⁾	Average Balance	Interest Expense	Average Rate Paid ⁽¹⁾	Average Balance	Interest Expense	Average Rate Paid ⁽¹⁾
	<i>(In billions of Won, except percentages)</i>								
Low cost deposits	₩117,049	₩ 246	0.2%	₩117,049	₩ 246	0.2%	₩117,049	₩ 246	0.2%
Time deposits	130,855	1,381	1.1	130,855	1,381	1.1	130,855	1,381	1.1
Instalment deposits	6,270	122	1.9	6,270	122	1.9	6,270	122	1.9
Marketable deposits	1,921	22	1.2	1,921	22	1.2	1,921	22	1.2
Deposits in foreign currencies	35,210	30	0.1	35,210	30	0.1	35,210	30	0.1
Total deposits⁽²⁾	₩291,304	₩1,800	0.6%	₩291,304	₩1,800	0.6%	₩291,304	₩1,800	0.6%

	Nine Months Ended 30 September					
	2023			2024		
	Average Balance	Interest Expense	Average Rate Paid (Annualised) ⁽¹⁾	Average Balance	Interest Expense	Average Rate Paid (Annualised) ⁽¹⁾
	<i>(In billions of Won, except percentages)</i>					
Low cost deposits	₩111,290	₩ 756	0.7%	₩111,804	₩ 771	0.7%
Time deposits	162,338	4,685	2.9	179,988	5,064	2.8
Instalment deposits	5,803	139	2.4	6,214	169	2.7
Marketable deposits	18,181	559	3.1	19,178	589	3.1
Deposits in foreign currencies	40,746	676	1.7	40,127	795	2.0
Total deposits⁽²⁾	₩338,359	₩6,815	2.0%	₩357,311	₩7,388	2.1%

(1) Defined as interest expense of each deposit divided by the average of its daily ending balances.

(2) Calculated as a sum of Won-denominated deposits, foreign currency deposits, certificate of deposits, Won-denominated bonds sold under repurchase agreements and bills sold.

We offer various types of household loans to individuals and small unincorporated businesses. Our household loans (before allowance for loan losses and net deferred loan fees and expenses) as of 30 September 2024 amounted to ₩133.5 trillion, on a separate basis, ₩20.4 trillion, or 15.3%, of which were unsecured loans.

Private Banking Operations

We offer private banking services to high net-worth retail customers. Through our private banking network, we offer diversified, packaged products and services such as standard retail banking, loan products, brokerage, bancassurance, investment products, real estate and estate management services. These products and services, along with customer relationship management, continue to be a focal point of our retail banking growth strategy. Our VIP Advisors across all our retail branches and private banking channel Gold Club serve the needs of high net-worth customers, advising them on tax matters and asset management. Our strength in private banking has been recognised by the industry and media through numerous awards, including the “Most Innovative Private Bank in the World” award from Global Finance Magazine and the “Best Private Bank in Korea” award from Euromoney Magazine in 2024, the “Best Private Bank in Korea” awards from The Banker and Euromoney Magazine in 2023, and the “Best Private Bank in Korea” awards from The Banker, Global Finance Magazine and Euromoney Magazine in 2022. With the rising number of high net-worth retail customers, we believe the Korean wealth management market offers potential for significant growth.

In order to meet the enhanced expectations and sophisticated needs of our high net-worth retail customers, we pursue a “total financial service package” approach, which encompasses a wide range of services from traditional banking to advanced asset-allocation, and have started to offer highly personalised digital private banking service to our high net-worth customers via our mobile application, Hana 1Q, since January 2023. Our Wealth Management Group solely focuses on providing value-added and high-quality products and services to high net-worth customers. As of 30 September 2024, we had 313 professionals dedicated to private banking, working in 6 Gold Clubs (targeted for high net-worth customers with more than ₩500 million in total relationship balance) and 14 in-branch PB centres (targeted for high net-worth customers with more than ₩300 million in total relationship balance).

Trust Management Services

We offer our customers a variety of money trust products and manage the funds that they invest in money trusts, on a fee basis. We generally manage money trusts that allow investors to share in the investment performance of the trust in proportion to the amount of their investment in the trust. We also offer property trust management services, where we manage non-cash assets for a fee. The trust management services that we offer include (i) money trusts, consisting of pension trusts, specific money trusts and retired pension trusts, and (ii) property trusts, consisting of real estate collateral trusts and money receivable trusts.

Pursuant to Korean law, the assets of our money trusts are segregated from our assets and are not available to satisfy the claims of our creditors. Accordingly, trust accounts are accounted for, and reported separately from, bank accounts. For money trusts, under the Financial Investment Services and Capital Markets Act (“FSCMA”), we are permitted to offer only specified money trust account products. Specified money trusts are established on behalf of individual customers, typically corporations, which direct our investment of trust assets.

Investment Banking and Capital Markets

We engage in different types of investment banking and capital markets activities, primarily on behalf of corporate customers in Korea, as well as for our own account. Our principal investment banking activities include:

- arrangement of project financing and other international bond issues and syndicated loans;
- arrangement and advisory services relating to issuances of asset-backed securities;
- real estate financing and advisory services; and
- acquisition financing and financial advisory services.

We invest in and trade securities for our own account, primarily to maintain adequate sources of liquidity and to generate interest and dividend income and capital gains.

Foreign Exchange and Trade Financing

We are one of the leaders in the Korean foreign exchange market and believe that we continue to hold the largest market share of any Korean bank with respect to customer-related foreign exchange and trade financing transactions, with numerous awards from industry journals. In 2024, we received the “Best Trade Finance Provider in Korea” and the “Best Foreign Exchange Bank in Korea” awards from Global Finance Magazine. In 2023, we received the “Best Foreign Exchange Bank in Korea” award from Global Finance Magazine and the “Best Trade Finance Provider in Korea” award for the twenty-second time from the same magazine. In 2022, we received the “Best Trade Finance Provider in Korea” award for the twenty-first time from Global Finance Magazine.

The foreign exchange services we offer include purchases and sales of foreign currencies in the spot and forward markets on behalf of customers, which enable them to satisfy payment obligations, hedge currency exposures and meet other needs for foreign currency. During the first nine months of 2024, the foreign exchange transaction volumes handled by us, which includes wire transfers of foreign currencies, amounted to US\$289.8 billion. We also provide international trade financing services, including documentary letters of credit, bankers’ acceptances and other forms of trade financing, to meet the complex needs of our customers in the export and import business. During the first nine months of 2024, our export and import volumes in the aggregate totalled US\$363.3 billion. In December 2022, we signed a memorandum of understanding (“MOU”) with Toss Securities to provide real time foreign exchange rate information and trading services 24-hour-a-day for the first time in the Korean foreign exchange market, which have been implemented since December 2022.

Merchant Banking

Our merchant banking services principally include the following:

- commercial paper discounting, which entails purchasing at a discount notes that are issued, endorsed or guaranteed by companies to supply them with short-term working capital; and
- payment guarantees, which entail issuing guarantees in respect of notes, corporate bonds and other Won and foreign currency payment obligations in return for fees.

Bancassurance

We work with third party insurance companies to offer insurance products through our branch network in the bancassurance market. We primarily offer our customers third-party insurance products, including the following:

- annuity insurance, which generally pays a fixed amount yearly or monthly during an insured’s lifetime and for a fixed period after death;
- long-term savings insurance, which compensates for physical injury or disease occurring during the coverage period and reimburses the insured for premiums paid and interest accrued at the end of such coverage period; and
- travel and leisure insurance, which compensates for physical injury or disease, as well as loss of personal property incurred during travel.

We believe our focus on providing a wide variety of bancassurance products, rather than focusing on one product, allows us to better meet individual customer needs, increases customer satisfaction and drives increased sales. In addition, due to the tax favourable nature of our bancassurance products, we are seeing increased interest from high net-worth individuals, professionals and high income self-employed persons. As of 30 September 2024, our bancassurance business had alliances with 21 life insurance companies and 12 non-life insurance companies.

Domestic Branch and Digital Banking

Domestic Branch Network

As of 30 September 2024, we maintained 534 branches and 67 sub-branches in Korea, most of which are located in Seoul and the surrounding provinces. The sub-branches are “compact” branches opened to produce higher returns on investment with relatively lower operating costs, based on facility design, efficient staffing and location in relatively affluent areas. As of 30 September 2024, we maintained 3,523 ATMs located in our branches.

Our branch network is designed to provide one-stop banking services tailored to their respective target customers. We have grouped our branches based on regional characteristics and classified them into retail and corporate groups. Decisions as to whether to open, close or merge a branch office are based on considerations of profitability, growth potential in the branch's surrounding area, competitive concerns and impact on our branch network, among other factors.

The following table presents the geographical distribution of our domestic branch network as of 30 September 2024, according to major metropolitan areas.

	Number of Domestic Branches		
	Branch	Sub-branch	Total
Seoul metropolitan area	221	20	241
Gyeonggi Province	96	13	109
Six major cities:			
Incheon	25	6	31
Busan	35	2	37
Gwangju	10	—	10
Daegu	21	—	21
Ulsan	9	4	13
Daejeon	33	8	41
Sub-total	<u>450</u>	<u>53</u>	<u>503</u>
Others	<u>84</u>	<u>15</u>	<u>99</u>
Total	<u>534</u>	<u>68</u>	<u>602</u>

Digital Banking

Our digital banking platform consists of Internet and mobile banking services, which complements our branch network. As of 30 September 2024, we had approximately 19.2 million customers using our Internet banking services and 16.3 million customers using our mobile banking services.

The advancement of mobile technology and growing sophistication of smartphones in recent years has led to a growth in mobile banking. In response to such trends, we have launched a number of multilingual mobile apps and services. Our current portfolio of mobile apps includes Hana 1Q, our centralised mobile banking app with a “Single Sign On” function, allowing multiple services with a single login, and facial recognition login system. Hana EZ is our mobile app for international financial transactions, including overseas remittances and non-face-to-face currency exchange services. Hana Members is our members services and loyalty mobile app. We plan to launch additional mobile apps and services and build an open, web-based Internet banking platform that supports a number of operating systems and web browsers, strengthening our customers’ access to our services on mobile devices. In addition, we are developing technologies to increase our level of support for people who have difficulty using computers and/or accessing the Internet.

In addition to building our portfolio of mobile apps and services, in recent years, we have also looked to invest in, and find synergies with, fintech companies. In August 2016, Hana Financial Group established Finng Inc. (formerly Hana-SK Fintech Co., Ltd.; “**Finng**”), a joint venture with a mobile service provider, SK Telecom Co., Ltd. (“**SK Telecom**”), to provide fintech-based services such as mobile-oriented asset management, simplified payment and overseas transactions through a mobile application launched in 2017. We collaborate with Finng in connection with fintech-based services. Furthermore, since June 2015, we have fostered collaboration with fintech start-ups through our fintech accelerator, Fintech 1Q Lab. In addition, in 2020, we invested ₩7.5 billion for the acquisition of 7.5% equity in Toss Bank, and in 2021 acquired additional equity interest. Our stake in Toss Bank amounted to 8.96% as of 30 September 2024.

We focus our efforts to facilitate the digital transformation of our business. In March 2019, we implemented our first Robotic Process Automation, named Hanabot, an automated machine-learning software programme that handles tasks including personal, household and corporate lending as well as credit card transactions. Furthermore, in 2018 we opened a new division for artificially intelligent financial assistance, “HAI Banking Service,” and commenced our “Exchange Wallet” and “Mobile Bancassurance” services through Hana Members’ app.

In addition, we lead the development of blockchain technologies in the banking industry. In 2019, we became the first Korean bank to join Hyperledger and Enterprise Ethereum Alliance, the global blockchain consortia, and

received patents for 46 new business models that will facilitate the adoption of blockchain technology to our business. In September 2023, we signed a strategic business agreement with BitGo, a global crypto custodian company, to jointly enter the digital asset custody sector and formed a Security Token Offering consortium called “Next Finance Initiative” with Mirae Asset Securities Co., Ltd. and SK Telecom. Furthermore, since October 2023, we have started to offer seven fractional investment financial products via our Hana 1Q, our mobile application.

In 2021, we also launched a digital fund platform called “Fun Shop” which provides highly customised search functions for various investment options and a MyData-based asset management service called “Hana HAP” which provides optimised asset management solutions in digitalised format. In October 2022, we launched a new digital bank account service in collaboration with Naver Pay, one of the most common forms of mobile payment service in Korea, through which a user can benefit from the features that are commonly associated with traditional bank accounts, such as deposit protection and accrual of interests, and enjoy at the same time discounts and loyalty points offered by Naver Pay.

We are also making efforts to establish an environment that can actively respond to the rapidly changing AI landscape. For example, in April 2023, we introduced an AI wealth management service called “AI Wealth,” the first of its kind in the Korean banking industry. Additionally, in January 2024, we began offering the “Customised AI-based Policy Funds Search” service, which allows SMEs to check their eligibility for policy fund loans and receive recommendations for appropriate financial products.

Overseas Network

We operate the largest network of overseas branches among Korean banks to meet the needs of our customers for foreign exchange, trade finance, funds remittance and other global banking services in Korea and elsewhere around the world.

As of 30 September 2024, our overseas network consisted of 114 business units in 26 countries (24 in the Americas, 11 in Europe and the Middle East, and 79 in Asia and Oceania). Specifically, we had 19 international branches, one sub-branch of such international branches, five overseas representative offices, 11 overseas subsidiaries and 78 sub-branches of such overseas subsidiaries located overseas.

We have over 50 years of experience operating in many high-growth regions of the world. For the first nine months of 2024, on a separate basis, our net income from our offshore operations was ₩188.3 billion, which represented 6.7% of our total net income, and we had total overseas assets of ₩27.4 trillion as of 30 September 2024.

We continue to adapt the focus of our network of overseas branch operations in response to changes in the global economy. To overcome the difficulties we may face due to current market volatility and instability, we are concentrating our efforts on maintaining quality assets and creating new products for our overseas business. Under our “Global Expansion and Profitable Growth” drive, we are promoting projects to help clients restructure assets, adjust their business models and develop their scope of business. In May 2020, Hana Financial Group, our holding company, entered into an MOU with Shinhan Financial Group, the holding company of Shinhan Bank, to strengthen their global businesses by creating synergies between the two banking groups. It is expected that such MOU will lead to greater opportunities to expand our overseas business.

The table below sets forth our overseas subsidiaries, branches (not including sub-branches) and representative offices as of 30 September 2024.

<u>Business Unit⁽¹⁾</u>	<u>Location</u>	<u>Year Established</u>
Subsidiaries:		
Americas		
KEB Hana Bank Canada	Canada	1981
Banco KEB Hana do Brasil S.A.	Brazil	1998
KEB Hana NY Financial Corp.	United States	2004
KEB Hana LA Financial Corp.	United States	2004
KEB Hana Bank USA	United States	1986
Banco KEB Hana México S.A.	Mexico	2017
Europe and the Middle East		
KEB HNB Rus LLC	Russia	2014
KEB Hana Bank (D) AG	Germany	1992
Asia		
KEB Hana Bank (China) Co., Ltd.	China	2007
KEB Hana Global Finance Limited	Hong Kong	2009
PT. Bank KEB Hana Indonesia	Indonesia	2014
Branches:		
Americas		
New York Agency	United States	1978
Panama Branch	Panama	1980
Europe and the Middle East		
London Branch	United Kingdom	1968
Paris Branch	France	1974
Amsterdam Branch	Netherlands	1979
Bahrain Branch	Bahrain	1977
Abu Dhabi Branch	United Arab Emirates	2012
Asia		
Tokyo Branch	Japan	1967
Osaka Branch	Japan	1967
Fukuoka Branch	Japan	2019
Hong Kong Branch	Hong Kong	1967
Singapore Branch	Singapore	1973
Manila Branch	Philippines	1983
Hanoi Branch	Vietnam	1999
Ho Chi Minh City Branch	Vietnam	2015
Sydney Branch	Australia	2014
Chennai Branch	India	2015
Gurugram Branch	India	2019
Taipei Branch	Taiwan	2022
Representative Offices:		
Americas		
Mexico City Representative Office	Mexico	2015
Europe and the Middle East		
Dubai Representative Office	United Arab Emirates	2003
Istanbul Representative Office	Turkey	2013
Budapest Representative Office	Hungary	2024
Asia		
Yangon Representative Office	Myanmar	2012

(1) Excludes subsidiaries, branches and representative offices planned for closure due to no actual operations.

In addition to our overseas networks of branches, representative offices and overseas subsidiaries, we have also looked at strategic acquisitions, investments and MOU opportunities to find business synergies outside of Korea, particularly in China, Southeast Asia and, more recently, Eastern Europe, India and the Middle East. For example, in November 2019, we completed the acquisition of a 15% stake in BIDV, one of the largest banks controlled by the State Bank of Vietnam, for over ₩1 trillion. We expect that this strategic investment will allow us to expand our network in Vietnam, where we currently have two branches, by gaining access to BIDV's vast

chain of branches and ATMs. In April 2022, we established a branch office in Taipei, Taiwan as the first and only Korean bank to establish presence in Taiwan. More recently, we entered into MOUs with several leading banks in Eastern Europe, India, Saudi Arabia and South America as part of our strategies to explore further expansion of our presence in such regions, and newly established representative offices in Monterrey, Mexico and Budapest, Hungary.

Competition

We compete principally with other national banks in Korea. We also face competition from a number of additional sources including regional banks, Government policy banks, specialised banks, branches of foreign banks operating in Korea and various other types of financial service institutions. In particular, competition in the retail and SME lending business, which has traditionally been an important business for us, has increased significantly in recent years and is expected to increase further. In addition, the profitability of our retail banking operations may decline as a result of growing market saturation in the retail lending segment, increased interest rate competition and higher marketing expenses. Intense and increasing competition has made and continues to make it more difficult for us to secure retail and SME customers with the credit quality and on credit terms necessary to achieve our business objectives in a commercially acceptable manner.

Consolidation among our rival institutions and the Government's privatisation efforts may also add competition in the markets in which we conduct business. For example, pursuant to the implementation of the Government's privatisation plan with respect to Woori Finance Holdings Co., Ltd. (the former financial holding company of Woori Bank) and its former subsidiaries, certain subsidiaries of Woori Finance Holdings Co., Ltd. were sold to other financial institutions and Woori Finance Holdings Co., Ltd. itself was merged into Woori Bank in 2014. In January 2019, Woori Financial Group Inc. was established as Woori Bank's new financial holding company. Furthermore, large financial groups have been focused on further growing their asset size and strengthening their non-banking businesses over the past few years by actively seeking acquisition targets. For example, Shinhan Financial Group acquired Orange Life Insurance Ltd. (formerly ING Life Insurance Korea Ltd.) in February 2019 and BNP Paribas Cardif General Insurance in November 2021. In September 2020, KB Financial Group acquired Prudential Life Insurance Co. of Korea. In line with this trend, Hana Financial Group, our parent holding company, also acquired The-K Non-Life Insurance in May 2020. We expect that consolidation in the financial industry will continue. Other financial institutions may seek to acquire or merge with other entities, and the financial institutions resulting from such consolidation may, by virtue of their increased size and business scope, provide significantly greater competition for us. Increased competition and continuing consolidation may lead to decreased margins, resulting in a material adverse impact on our future profitability.

In July 2023, the FSC announced various measures designed to encourage competition within the banking industry, including its intention to issue more banking licences (including those for internet-only banks, taking into consideration the performance and stability of the internet-only banks currently in operation) and actively permitting the conversion of existing regional or savings banks into nationwide commercial banks, for which the FSC and the FSS published detailed guidelines in January 2024. In this respect, as of the date of this Offering Circular, six consortiums, including those involving major nationwide commercial banks and other financial service providers, have publicly announced their intent to apply for an internet-only banking licence to become the fourth internet-only bank in Korea.

Furthermore, many companies outside the traditional banking and financial services industries with large-scale user networks have emerged to provide financial services that do not require a banking licence. For example, each of Naver Financial, Kakao Pay and Toss operates mobile payment and money transfer platforms offering various financial services that may encroach on or compete with our service offerings.

See "Investment Considerations—Risks Relating to Our Business—*Competition in the Korean banking industry is intense and may further intensify*" and "Investment Considerations—Risks Relating to Our Business—*The adoption of new technologies and competition from fintech companies and online-only banks may adversely affect our business, financial condition and results of operations.*"

Information Technology

We have a fully integrated IT system that provides information to all offices and branches. We believe that a sophisticated IT system is critical to supporting our operations management and providing high-quality customer service. Accordingly, we have made, and intend to continue to make, significant investments to upgrade and expand our IT systems in order to improve our risk management, operations management and customer service.

In recent years, we have developed and implemented several new technologically advanced risk management systems, including our Basel II System, Anti-Money Laundering System and BIS Risk-Weighted Asset Management System. Currently, our IT systems are capable of collecting and generating data in compliance with the Basel III requirements.

We continuously allocate considerable resources to improve the capacity and reliability of our IT infrastructure in our business divisions, which we believe is crucial to supporting our operations management and providing high-quality customer service.

Properties

Our principal establishment is our self-owned headquarters building located in Seoul, Korea, which has a total floor area of approximately 53,981 square metres. In addition, we own or lease various land and buildings for our branches.

Legal and Regulatory Proceedings

We may from time to time become a party to various legal, arbitration or administrative proceedings arising in the ordinary course of business. As of 30 September 2024, the aggregate amounts of claims brought against us totalled ₩349.9 billion (relating to 235 cases), for which we recorded a provision of ₩21.6 billion. As of the same date, the aggregate amounts of claims brought by us totalled ₩196.6 billion (relating to 253 cases).

We are currently involved in several pending disputes or potential disputes against us and have recently been involved in certain regulatory matters, including the following:

- In August 2019, the FSS began an investigation into the structuring and sale of certain DLF products by financial institutions, including us, after investors faced heavy losses as a result of decreases in the interest rates linked to certain securities underlying the DLF products, such as U.S. and U.K. swap interest rates. These products have an annual return rate of 3.5% to 4% if the interest rates remain above a certain baseline level until maturity. However, if the interest rates fall below such baseline level, investors suffer a loss in principal up to the entire amount invested. The results of the FSS's investigation showed that we had sold approximately ₩184 billion of such DLF products to investors. In December 2019, the dispute settlement committee of the FSS recommended (i) the reimbursement of 40% to 80% of the related losses to certain customers by the financial institutions involved in the sale of such products, including us, and (ii) individual settlements with other customers who were not subject to the 40 to 80% reimbursement recommendation. In accordance with the recommendations, we have reimbursed the relevant customers. In February 2020, the FSC imposed on us a fine of ₩16.8 billion and a six-month ban on sales of new private equity funds, and our former President Young Joo Ham was issued a "reprimand" warning. Immediately following such decision, we filed a petition for an injunction against the six-month ban on sales of new private equity funds and Mr. Ham also filed a petition for an injunction to suspend the effect of the "reprimand" warning, both of which were granted by the Seoul Administrative Court in June 2020. As a result, our sales of new private equity funds temporarily resumed from July 2020. We filed actions with the Seoul Administrative Court for cancellation of the ₩16.8 billion fine and the six-month ban on sales of new private equity funds, and Mr. Ham also filed a lawsuit with the Seoul Administrative Court for the cancellation of the "reprimand" warning. On 14 March 2022, the Seoul Administrative Court ruled against us and Mr. Ham. We and Mr. Ham have subsequently appealed and the Seoul High Court ruled partially in favour of us and Mr. Ham, cancelling the issuance of a "reprimand" warning against Mr. Ham on 29 February 2024. The FSS appealed the decision, but the Supreme Court of Korea dismissed the case on the grounds that no further examination was required.
- In October 2020, two individuals filed a civil lawsuit against us and our private banker for their losses from investments in DLF products alleging, among others, that we and our private banker did not sufficiently explain the risks involved with the investment. In January 2023, the Busan District Court ruled in favour of the plaintiffs, ordering us and our private banker to jointly pay 60% of the amount of losses suffered by the plaintiffs. We have subsequently appealed, but the Busan High Court confirmed the judgement through compulsory mediation.
- In February 2020, the Seoul Southern District Prosecutors' Office commenced an investigation into the management of trade finance funds by Lime Asset Management Co. ("Lime") which may have resulted in significant losses to certain customers who purchased such products from banks and securities companies in Korea, including us. Such trade finance funds of Lime had investments in certain funds managed by

International Investment Group LLC, a New York-based investment adviser, which had its licence revoked by the Securities and Exchange Commission in November 2018 for concealing losses and selling fraudulent loan assets, triggering suspension of the redemption of such trade finance funds. In March 2020, the FSS began its investigation into Lime, and on 27 August 2020, the FSS recommended that the financial institutions that sold such trade finance funds, including us, nullify such investment and provide full refunds to affected investors. Following a meeting of the board of directors, we agreed to accept the recommendations of the FSS and the proposed full refunds to affected investors in the amounts of approximately ₩36.4 billion. In February 2022, we filed an indemnity lawsuit against Lime and Shinhan Securities Co., Ltd. (formerly known as Shinhan Investment Corp.), which had Total Return Swap contracts in place with Lime and was tasked with supervising and overseeing Lime, for damages of approximately ₩36.4 billion and the trial is currently ongoing as of the date of this Offering Circular.

- In June 2020, the Seoul Central District Prosecutor's Office commenced an investigation into the management of trade receivable funds by Optimus Asset Management ("**Optimus**"), whom we and another commercial bank acted as the custodian of the funds' assets, after Optimus had suspended withdrawals in four of the funds before maturity. Such funds were marketed as safe investments of trade receivables of government corporations and public institutions but the Prosecutor's Office found that Optimus had invested the assets of the funds elsewhere, which may have resulted in significant losses to investors. In July 2020, the CEO of Optimus, among others related to the funds, was arrested for fraud and other charges. In September 2020, the Prosecutor's Office executed a second search warrant at our headquarters, following the initial search warrant executed in June 2020, in connection with the ongoing investigation into the management of the funds. In May 2021, the Prosecutor's Office indicted us and our employees on charges of violation of the FSCMA and occupational breach of trust, and in 2022, the Seoul Central District Court acquitted us and the employees of all charges, which was affirmed by the appellate court in January 2024. The Prosecutor's Office subsequently appealed, and the case is currently ongoing at the Supreme Court of Korea. In addition, in October 2021, NH Investment & Securities Co., Ltd. ("**NH I&S**") filed a lawsuit against Optimus, the Korea Securities Depository ("**KSD**") and us, among others, for damages. The trial is currently ongoing. Due to the ongoing nature of the investigation, we cannot predict its potential outcome, including any implication on us. Furthermore, as an administrative sanction for our violation of the FSCMA in connection with this case, on 2 March 2022, the FSC resolved to partially suspend us from accepting new general private equity fund assets for custody for three months. We filed an administrative lawsuit requesting the repeal of the FSC's suspension, but the Seoul Administrative Court ruled against us on 8 September 2023. We subsequently appealed, and the case is currently ongoing. Mostly recently in January 2024, the Seoul Central District Court ordered that we, NH I&S and KSD collectively compensate Green Cross WellBeing Corporation with approximately half of the invested principal along with accrued interest. This ruling marks the first acknowledgment of joint liability among a securities firm, a bank and a depository in the Optimus-related cases. We, NH I&S and KSD have all appealed the decision, and Green Cross Wellbeing has also appealed, seeking a higher compensation amount.
- From May 2008 to January 2014, we provided KT ENG CORE Co., Ltd. (formerly KT ENS Corporation) with a loan that was guaranteed by Korea Investment & Securities Co., Ltd. and Shinhan Securities Co., Ltd. (collectively, the "**Guarantors**" and each a "**Guarantor**") and securitised with each Guarantor's trade receivables that turned out to be fraudulent. In 2014, we filed a claim against the Guarantors, demanding payment of their guarantee obligations to us. In August 2016, the Seoul High Court ruled in favour of us and the Guarantors fulfilled their guarantee obligations as a result. The Guarantors subsequently appealed the case to the Supreme Court of Korea, and the Supreme Court dismissed the appeal. In addition, in January 2017, the Guarantors sued us for damages totalling ₩37 billion on grounds that we had not duly verified the substance of the fraudulent trade receivables before entering into the loan agreement. While the Seoul Central District Court ruled in favour of us, the Supreme Court of Korea, in April 2023, mandated that we pay the Guarantors ₩7.5 billion in damages.
- As part of a broad governmental initiative to foster fair recruitment practises, in December 2017, the FSS launched an examination of 11 Korean commercial banks and preliminarily concluded that several banks, including us, may have given preferential treatment to certain job applicants during the recruiting process. Based on these preliminary findings by the FSS, in February 2018, the Supreme Prosecutors' Office of Korea initiated an investigation of six major commercial banks, including us, for alleged irregularities in hiring new employees. As a result of the investigation, the Supreme Prosecutors' Office charged us and six of our officials, including our former President Young Joo Ham, whose term ended on March 2019, with illegally influencing the hiring process of new employees and manipulating hiring standards for certain candidates. The Seoul Western District Court held trials for Mr. Ham starting from August 2018 in which Mr. Ham denied any involvement in hiring irregularities. The Supreme Prosecutors' Office sought a 3-year

prison term and a fine of ₩5 million for Mr. Ham, but the Seoul Western District Court on 11 March 2022 found Mr. Ham not guilty on all charges. The Supreme Prosecutors' Office appealed the decision, and on 23 November 2023, the Criminal Appeal Division of the Seoul Western District Court found Mr. Ham guilty of the violation of the Equal Employment Opportunity and Work-Family Balance Assistance Act and imposed a fine on the Bank. We subsequently appealed, and the case is ongoing at the Supreme Court of Korea. Since the indictment of our officials, we have taken measures to reform our procedures for hiring new employees, including abolishing the hiring recommendation system and outsourcing all hiring processes.

- In January 2022, the FSS held a sanctions review committee. On the grounds that we engaged in mis-selling of 11 private equity funds including the aforementioned trade finance funds of Lime, Italian Healthcare Fund, German Heritage Fund and Discovery Fund in violation of the FSCMA, the FSS resolved to propose to the FSC that (i) we be subject to partial business suspension for three months and a fine for negligence, and that (ii) disciplinary measures be taken against certain executives and employees of us. In April 2023, the Securities and Futures Commission of the FSC imposed penalties of ₩17.9 billion against us for conducting unfair business activities in violation of the Financial Investment Services and Capital Markets Act.
- In June 2023, the Fair Trade Commission (the “FTC”) of Korea commenced its investigation into potential collusion among four largest commercial banks in Korea, including us, whereby such banks had allegedly structured their secured loans in similar terms in order to limit competition. The FTC had concluded its investigation and issued its investigation report on 8 January 2024, and, as of the date of this Offering Circular, is in the process of receiving comments on the investigation report from the involved banks. The disciplinary action against the involved banks, if any, will be finalised after the deliberation process by the FTC is concluded.
- In November 2023, the FSS began its investigation into the sale of equity-linked securities products tracking the Hang Seng China Enterprises Index (“**HK ELS Products**”) by Korean financial institutions, including us, amidst the increasing concerns from investors that their investments in HK ELS Products are expected to suffer heavy losses due to a sharp decline of the Hang Seng China Enterprises Index which dropped more than 50% since hitting its peak in early 2021. According to the FSS data, the outstanding balance of Korea's HK ELS Products amounted to ₩19.3 trillion as of November 2023. We had sold approximately ₩2.1 trillion of such HK ELS Products to investors from March 2011 until November 2023, after which we ceased the sale due to increasing volatility in the financial markets and the continued decline of the Hang Seng China Enterprises Index. In January 2024, we expanded the suspension of sales to all equity-linked securities products. In March 2024, we voluntarily set up a dedicated compensation committee and decided to compensate certain investors for their losses related to HK ELS Products. After conclusion of its investigation in April 2024, the FSS convened a dispute resolution committee for five representative cases from five major commercial banks, including us, and determined the compensation ratio to be 30-65% of the total loss incurred by the investors. The compensation ratio set by the dispute resolution committee for our representative case was 30%. As of 30 September 2024, we settled 9,448 cases out of a total of 12,981.
- In February 2023, immediately following the designation of MTS Bank, a commercial bank in Russia, as a sanctions target on the SDN List, we implemented an asset freezing measure on the assets of MTS Bank in an account held by us. Following such measure, MTS Bank filed a lawsuit with the Moscow Commercial Court against us and our subsidiary in Russia seeking release of their frozen assets. The first hearing is scheduled for January 2025.

Other than the matters discussed above, we are not a party to any legal or administrative proceedings, and no proceedings are known by us to be contemplated by governmental authorities or third parties, which, if adversely determined, may have a material adverse effect on our business, financial condition or results of operations.

DESCRIPTION OF ASSETS AND LIABILITIES

The tables below and accompanying discussions provide selected financial highlights regarding our assets and liabilities. Unless otherwise specified, the information provided below is presented on a consolidated basis.

Average Balance Sheets and Related Interest

The following tables set forth our average balances of assets and liabilities, on a separate basis, for the periods indicated. For interest-earning assets and interest-bearing liabilities, the tables provide the amount of interest earned or paid and the average rate (annualised for interim periods) of such interest. For the purposes of these tables, average balance has been determined based upon the average of the daily ending balances.

	Year Ended 31 December								
	2021			2022			2023		
	Average Balance	Interest	Yield/Rate ⁽¹⁾	Average Balance	Interest	Yield/Rate	Average Balance	Interest	Yield/Rate
	(In billions of Won, except percentages)								
Interest earning assets									
Loans	₩280,707	₩6,794	2.4%	₩305,379	₩10,502	3.4%	₩317,121	₩15,650	4.9%
Won	253,483	6,423	2.5	270,598	9,601	3.5	282,539	13,911	4.9
Foreign currency ..	27,224	372	1.4	34,781	901	2.6	34,582	1,739	5.0
Due from banks	11,233	30	0.3	15,573	250	1.6	14,677	599	4.1
Won	382	2	0.5	433	9	2.1	348	12	3.5
Foreign currency ..	10,851	28	0.3	15,140	241	1.6	14,330	587	4.1
Securities	49,626	744	1.5	61,394	1,171	1.9	71,647	1,849	2.6
Won	43,555	641	1.5	54,402	1,040	1.9	63,778	1,638	2.6
Foreign currency ..	6,071	103	1.7	6,992	131	1.9	7,869	211	2.7
Other	—	30	N.M.	—	32	N.M.	—	80	N.M.
Won	—	30	N.M.	—	32	N.M.	—	80	N.M.
Foreign currency ..	—	—	N.M.	—	—	N.M.	—	—	N.M.
Total interest earning assets	<u>₩341,566</u>	<u>₩7,599</u>	2.2%	<u>₩382,346</u>	<u>₩11,955</u>	3.1%	<u>₩403,446</u>	<u>₩18,178</u>	4.5%
Non-interest earning assets	52,607	383	0.7	61,294	429	0.7	65,149	480	0.7
Total assets	<u>₩394,173</u>	<u>₩7,982</u>	2.0%	<u>₩443,640</u>	<u>₩12,384</u>	2.8%	<u>₩468,595</u>	<u>₩18,658</u>	4.0%
Interest bearing liabilities									
Deposits	₩288,580	₩2,238	0.8%	₩318,855	₩ 4,677	1.5%	₩338,366	₩ 9,788	2.9%
Won	253,370	2,162	0.9	277,261	4,346	1.6	297,719	8,796	3.0
Foreign currency ..	35,210	76	0.2	41,594	331	0.8	40,647	992	2.4
Borrowings	16,171	76	0.5	20,169	274	1.4	21,877	666	3.0
Won	8,471	51	0.6	9,631	121	1.3	9,426	218	2.3
Foreign currency ..	7,700	25	0.3	10,538	153	1.5	12,451	448	3.6
Debentures	25,694	433	1.7	28,454	671	2.4	24,833	988	4.0
Won	19,762	366	1.9	22,073	485	2.2	18,787	607	3.2
Foreign currency ..	5,932	68	1.1	6,381	186	2.9	6,046	381	6.3
Other	6,103	33	0.5	6,953	145	2.1	7,793	310	4.0
Won	5,434	33	0.6	6,132	124	2.0	7,009	268	3.8
Foreign currency ..	669	0	0.0	821	21	2.6	783	41	5.3
Total interest bearing liabilities	<u>₩336,548</u>	<u>₩2,780</u>	0.8%	<u>₩374,431</u>	<u>₩ 5,767</u>	1.5%	<u>₩392,868</u>	<u>₩11,752</u>	3.0%
Non-interest bearing liabilities and equity	57,625	(430)	(0.7)	69,209	(430)	(0.6)	75,726	(449)	(0.6)
Total liabilities and equity	<u>₩394,173</u>	<u>₩2,350</u>	0.6%	<u>₩443,640</u>	<u>₩ 5,337</u>	1.2%	<u>₩468,595</u>	<u>₩11,303</u>	2.4%

Nine Months Ended 30 September

	2023			2024		
	Average Balance	Interest	Yield/Rate (annualised)	Average Balance	Interest	Yield/Rate (annualised)
	(In billions of Won, except percentages)					
Interest earning assets						
Loans	₩313,937	₩11,562	4.9%	₩337,115	₩12,051	4.8%
Won	279,374	10,288	4.9	301,876	10,666	4.7
Foreign currency	34,563	1,274	4.9	35,239	1,386	5.2
Due from banks	14,902	440	3.9	12,150	390	4.3
Won	376	10	3.5	242	6	3.4
Foreign currency	14,527	431	4.0	11,908	384	4.3
Securities	71,204	1,346	2.5	74,508	1,584	2.8
Won	63,480	1,197	2.5	64,864	1,352	2.8
Foreign currency	7,724	149	2.6	9,645	232	3.2
Other	—	64	N.M.	—	29	N.M.
Won	—	64	N.M.	—	29	N.M.
Foreign currency	—	—	N.M.	—	—	N.M.
Total interest earning assets	₩400,044	₩13,413	4.5%	₩423,773	₩14,054	4.4%
Non-interest earning assets	65,056	357	0.7	65,318	383	0.8
Total assets	₩465,099	₩13,769	3.9%	₩489,092	₩14,437	3.9%
Interest bearing liabilities						
Deposits	₩335,579	₩ 7,158	2.8%	₩354,563	₩ 7,743	2.9%
Won	294,832	6,441	2.9	314,436	6,912	2.9
Foreign currency	40,746	717	2.3	40,127	832	2.8
Borrowings	22,132	489	2.9	20,763	497	3.2
Won	9,830	166	2.3	8,765	163	2.5
Foreign currency	12,302	322	3.5	11,999	334	3.7
Debenture	24,478	706	3.8	27,869	897	4.3
Won	18,464	425	3.1	21,595	601	3.7
Foreign currency	6,014	280	6.2	6,273	296	6.3
Other	7,576	221	3.9	9,045	253	3.7
Won	6,806	187	3.7	8,141	241	3.9
Foreign currency	769	34	5.9	904	12	1.7
Total interest bearing liabilities	₩389,764	₩ 8,573	2.9%	₩412,240	₩ 9,391	3.0%
Non-interest bearing liabilities and equity	75,335	(332)	(0.6)	76,851	(338)	(0.6)
Total liabilities and equity	₩465,099	₩ 8,242	2.4%	₩489,092	₩ 9,053	2.5%

(1) Defined as interest earned from or borne by an individual asset or liability divided by the average of its daily ending balances.
N.M. means not meaningful.

Analysis of Changes in Net Interest Income — Volume and Rate Analysis

The following table provides analyses of our changes in interest income, interest expense and net interest income based on changes in volume and changes in rates, on a separate basis, for the periods indicated. Information is provided with respect to (i) effects attributable to changes in volume (changes in volume multiplied by prior rate) and (ii) effects attributable to changes in rate (changes in rate multiplied by prior volume). Changes attributable to the combined impact of changes in rate and volume have been allocated proportionately to the changes due to volume changes and changes due to rate changes.

	Year Ended 31 December 2022 Compared to the Year Ended 31 December 2021			Year Ended 31 December 2023 Compared to the Year Ended 31 December 2022			Nine Months Ended 30 September 2024 Compared to the Nine Months Ended 30 September 2023		
	Changes in Average Volume	Changes in Average Rate	Net Change	Changes in Average Volume	Changes in Average Rate	Net Change	Changes in Average Volume	Changes in Average Rate	Net Change
	(a)	(b)	(a) + (b)	(a)	(b)	(a) + (b)	(a)	(b)	(a) + (b)
(In billions of Won)									
Increase (decrease) in interest income from:									
Loans in Won	₩459	₩2,720	₩3,178	₩440	₩3,869	₩4,310	₩806	₩(428)	₩ 378
Loans in foreign currency	125	404	529	(5)	844	838	25	86	111
Due from banks	15	205	220	(15)	365	349	(86)	36	(50)
Securities	199	228	427	218	461	678	65	173	238
Total increase (decrease) in interest income	₩798	₩3,557	₩4,354	₩638	₩5,539	₩6,175	₩810	₩(133)	₩ 677
Increase (decrease) in interest expense on:									
Deposits	₩257	₩2,182	₩2,439	₩303	₩4,808	₩5,111	₩412	₩ 174	₩ 585
Borrowings	23	175	198	25	367	392	(31)	40	8
Debenture	50	187	238	(95)	411	317	172	20	192
Other interest-bearing liabilities	5	107	112	19	145	165	41	(10)	31
Total increase (decrease) in interest expense	₩335	₩2,651	₩2,987	₩252	₩5,731	₩5,985	₩594	₩ 224	₩ 816
Net increase (decrease) in net interest income	₩463	₩ 906	₩1,367	₩386	₩ (192)	₩ 190	₩216	₩(357)	₩(139)

Loan Portfolio

As of 31 December 2021, 2022 and 2023 and 30 September 2024, the balance of our total loans before allowance for loan losses and net deferred loan fees and expenses was ₩310,232 billion, ₩331,497 billion, ₩348,908 billion and ₩364,631 billion, respectively, 86.6%, 86.4%, 87.5% and 88.1%, respectively, of which was denominated in Won and 13.4%, 13.6%, 12.5% and 11.9%, respectively, of which was denominated in other currencies, principally in U.S. dollars.

As of 31 December 2021, 2022 and 2023 and 30 September 2024, our total loans after allowance for loan losses and net deferred loan fees and expenses was ₩309,178 billion, ₩330,186 billion, ₩347,247 billion and ₩363,074 billion, respectively.

Guarantees are not categorised as loans unless and until we have made a payment on behalf of a customer in relation to the guarantee.

Borrower Types

The table below sets forth our summaries of loans by type of borrower (before allowance for loan losses and net deferred loan fees and costs) as of the dates indicated.

	As of 31 December						As of 30 September	
	2021		2022		2023		2024	
	Amount	%	Amount	%	Amount	%	Amount	%
(In billions of Won, except percentages)								
Large-sized businesses	₩ 41,137	13.3%	₩ 49,305	14.9%	₩ 52,615	15.1%	₩ 56,248	15.4%
SMEs	118,140	38.1	129,743	39.1	143,439	41.1	146,394	40.1
Households	133,202	42.9	132,541	40.0	131,926	37.8	136,820	37.5
Public sector and others	17,754	5.7	19,908	6.0	20,929	6.0	25,169	6.9
Total	₩310,232	100.0%	₩331,497	100.0%	₩348,908	100.0%	₩364,631	100.0%

Loan Types

The following table presents our loans by type as of the dates indicated.

	As of 31 December			As of 30 September
	2021	2022	2023	2024
	Amount	Amount	Amount	Amount
(In billions of Won)				
Loans in Won	₩257,201	₩274,028	₩292,565	₩307,188
Loans denominated in foreign currencies	28,249	32,054	31,794	32,406
Domestic import usance	4,189	4,546	3,834	3,703
Call loans	1,289	1,378	1,388	1,831
Bills purchased in Won	187	937	173	176
Bills purchased denominated in foreign currencies	5,799	5,289	4,041	4,005
Advance payments on acceptances and guarantees	12	6	11	7
Bonds purchased under resale agreements	11,381	11,777	13,754	13,877
Privately-placed corporate bonds	1,302	1,081	1,080	1,076
Others	623	401	269	362
Total loans (before allowance for loan losses and net deferred loan fees)	₩310,232	₩331,497	₩348,908	₩364,631
Total loans in Won	₩268,599	₩286,258	₩305,146	₩321,174
Total loans in denominated in foreign currencies	41,634	45,239	43,762	43,457
Deferred loan fees, net of expenses	379	356	383	429
Allowance for loan losses	(1,434)	(1,667)	(2,045)	(1,985)
Total loans (after allowance for loan losses and net deferred loan fees)	₩309,178	₩330,186	₩347,247	₩363,074

Loan Concentrations

We limit our total exposure to any single borrower as required by Korean regulations and pursuant to our internal policies. “Exposures” refer to our credits and other exposures, including debt securities held by us. “Credits” refer to our total credits (as reported to the FSC based on the FSC’s asset classification criteria), the principal components of which include the total loan portfolio of our bank accounts, loans provided from our trust accounts and merchant bank accounts, and confirmed guarantees and acceptances (which are off-balance sheet items).

We determine our exposure limit based on the borrower’s credit rating provided by our Credit Analysis System and adjust it if it would otherwise exceed the limit imposed by Korean regulations.

10 Largest Exposures by Borrower

As of 30 September 2024, on a separate basis, our 10 largest exposures totalled ₩30,045 billion and accounted for 8.3% of our total exposure (consisting of loans and other on-balance sheet items, confirmed guarantees and acceptances, and debt securities). The following table sets forth our total exposures to these top 10 borrowers as of 30 September 2024, on a separate basis.

	As of 30 September 2024			
	Loans and Other On-Balance Sheet Items	Confirmed Guarantees and Acceptances	Debt Securities	Total
	(In billions of Won)			
Korea Housing Finance Corporation	₩—	₩—	₩ 7,875	₩ 7,875
Korea Development Bank	—	—	6,102	6,102
Industrial Bank of Korea	115	2	3,079	3,195
Korea Land and Housing Corporation	—	—	2,652	2,652
Korea SMEs and Startups Agency	70	—	2,567	2,637
National Agricultural Cooperative Federation . . .	—	—	2,342	2,342
Korea Electric Power Corporation	11	42	1,847	1,900
Korea Gas Corporation	328	67	996	1,391
Korea Expressway Corporation	—	14	986	999
IBK Asset Management Co., Ltd.	—	—	950	950
Total	₩524	₩125	₩29,396	₩30,045

Exposure to Main Debtor Groups

As of 30 September 2024, on a separate basis, 4.3% of our total exposure was to the main debtor groups as designated by the FSS. The main debtor groups consist mostly of *chaebols*. The following table shows, as of 30 September 2024, on a separate basis, our total exposure to the 10 *chaebol* groups to which we have the largest exposure.

	As of 30 September 2024			
	Loans and Other On-Balance Sheet Items	Confirmed Guarantees and Acceptances	Debt Securities	Total
		(In billions of Won)		
HD Hyundai Heavy Industries	₩ 659	₩3,203	₩—	₩ 3,862
Samsung	973	414	10	1,397
SK	906	73	30	1,010
LG	1,156	516	—	1,672
Hyundai Motors	1,078	938	20	2,037
Lotte	1,234	272	10	1,516
LS	378	897	—	1,276
Hanwha	845	496	10	1,351
GS	473	141	—	614
CJ	348	454	10	812
Total	₩8,051	₩7,406	₩ 89	₩15,546

Loan Concentration by Industry

The following table shows, as of 30 September 2024, the aggregate balances of our total loans by industry concentration. The amounts disclosed are before allowance for loan losses and net deferred loan origination fees and costs.

	As of 30 September 2024	
	Aggregate Loan Balance	Percentage of Loan Balances
	(In billions of Won, except percentages)	
Corporate loans ⁽¹⁾		
Financial services	₩ 29,246	8.0%
Manufacturing	58,712	16.1
Construction	7,456	2.0
Wholesale and retail	24,762	6.8
Real estate rental	50,472	13.8
Others	57,162	15.7
Subtotal	227,810	62.5
Household loans	136,820	37.5
Total loans	364,630	100.0%

(1) Includes public sector loans.

Maturity Analysis (Loans in Won)

The following table sets out the scheduled maturities (time remaining until maturity) of our loan portfolio, excluding delinquent loans, as of 30 September 2024, on a separate basis. The amounts disclosed below are before allowance for loan losses and net deferred loan fees and expenses.

	As of 30 September 2024			
	1 Year or Less	Over 1 Year but Not More than 5 Years	Over 5 Years	Total
	(In billions of Won)			
Corporate loans	₩126,730	₩39,727	₩ 4,065	₩170,522
Household loans	37,572	17,846	77,700	133,119
Total gross loans in Won	₩164,302	₩57,573	₩81,765	₩303,641

We may roll over our corporate loans (primarily consisting of working capital loans and facility loans) and retail loans (to the extent not payable in instalments) after we conduct our normal loan review in accordance with our loan review procedures. In general, our corporate loans may be extended for periods of up to one year for a maximum aggregate term of six years from the date the relevant loan is initially made. Facilities loans that are bullet loans may be extended for periods of up to one year for a maximum term of 10 years, with partial payment of 10% or more of the initial loan amount required for each extension. Our working capital loans may be extended on an annual basis for an aggregate term of three to five years for unsecured loans and up to five years for secured loans. Facilities loans, which are generally secured, may be extended once for a maximum term of five years from the date when the relevant loan is initially made. Retail loans may be extended for additional terms of up to 12 months for a maximum aggregate of 10 years for both unsecured loans and secured loans.

Interest Rate Sensitivity (Loans in Won)

The following table shows, on a separate basis, our loans, excluding delinquent loans, denominated in Won by interest rate sensitivity as of 30 September 2024.

	As of 30 September 2024		
	Due Within 1 Year	Due After 1 Year	Total
	(In billions of Won)		
Fixed rate loans ⁽¹⁾	₩ 19,068	₩ 15,710	₩ 34,778
Variable or adjustable rate loans ⁽²⁾	145,234	123,629	268,863
Total gross loans in Won	₩164,302	₩139,339	₩303,641

- (1) Fixed rate loans are loans for which the interest rate is fixed for the entire term.
(2) Variable or adjustable rate loans are loans for which the interest rate is not fixed for the entire term.

For additional information regarding our management of interest rate risk for our loans, see “*Risk Management — Market Risk Management — Trading Activities*”.

Asset Quality of Loans

Loan Classifications

The FSC generally requires Korean financial institutions to analyse and classify their assets by quality into one of five categories. In making these classifications, we take into account a number of factors, including the financial position, profitability and transaction history of the borrower, and the value of any collateral or guarantee taken as security for the extension of credit. This classification method and our related provisioning policy are intended to fully reflect the borrower’s capacity to repay.

The following is a summary of the asset classification criteria we apply for corporate and retail credits based on the asset classification guidelines of the FSC. We also apply different criteria for other types of credits such as loans to the Government or to government related or controlled entities, certain bills of exchange and certain receivables.

<u>Asset Classification</u>	<u>Characteristics</u>
Normal	Credits to customers that, based on our consideration of their business, financial position and future cash flows, do not raise concerns regarding their ability to repay the credits.
Precautionary	Credits to customers that: • based on our consideration of their business, financial position and future cash flows, show potential risks with respect to their ability to repay the credits, although showing no immediate default risk; or • are in arrears for one month or more but less than three months.
Substandard	Either: • credits to customers that, based on our consideration of their business, financial position and future cash flows, are judged to have incurred considerable default risks as their ability to repay has deteriorated; or • the portion that we expect to collect of total credits (1) extended to customers that have been in arrears for three months or more, (2) extended to customers that have incurred serious default risks due to the occurrence of, among other things, final refusal to pay their debt instruments, entry into liquidation or bankruptcy proceedings, or closure of their businesses, or (3) extended to customers who have outstanding credits that are classified as “doubtful” or “estimated loss.”
Doubtful	Credits exceeding the amount we expect to collect of total credits to customers that: • based on our consideration of their business, financial position and future cash flows, have incurred serious default risks due to noticeable deterioration in their ability to repay; or • have been in arrears for three months or more but less than 12 months.

<u>Asset Classification</u>	<u>Characteristics</u>
Estimated Loss	Credits exceeding the amount we expect to collect of total credits to customers that: • based on our consideration of their business, financial position and future cash flows, are judged to have to be accounted as a loss as the inability to repay became certain due to serious deterioration in their ability to repay; • have been in arrears for 12 months or more; or • have incurred serious risks of default in repayment due to the occurrence of, among other things, final refusal to pay their debt instruments, liquidation or bankruptcy proceedings or closure of their business.

We classify our corporate loans based on the borrower's capacity to repay in consideration of its business operations, financial position and future cash flows, the past due period (if any) of the loans and status of any bankruptcy proceedings in which the borrower is involved. Loans to small companies and to households, however, are classified not by evaluating the debt repayment capability of the borrower but by the past due period (if any) of the loans and the status of any bankruptcy proceedings in which the borrower is involved. We generally classify all credits to a single borrower in the same category of classification, but guaranteed credits or credits secured by bank deposits, real estate or other collateral may be classified differently based on the guarantor's capability to perform under its guarantee or based on the value of collateral securing the credits.

Loan Loss Provisioning Policy

We have established an allowance for loan losses to absorb losses that we incur in our loan portfolio.

We first assess whether objective evidence of impairment exists individually for financial assets that exceed the individual assessment threshold of ₱1 billion and are therefore considered individually significant. For financial assets that are not individually significant, we assess whether the objective evidence of impairment exists collectively. If we determine that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, we include the asset in a group of financial assets with similar credit risk characteristics and collectively assess them for impairment.

Impairment loss is deducted from allowance for possible losses on credits when it is considered unrecoverable. If it is subsequently recovered, allowance for possible losses on credits increases and the changes are recognised in net income.

Allowance for possible losses on credits by individual assessment

Allowance for possible losses on credits is recognised by the difference between the asset's carrying amount and the present value of future cash flows expected to be collected, considering the borrower's management performance, financial position, overdue period and mortgage amount.

Allowance for possible losses on credits by collective assessment

Allowance for possible losses on credits is recognised by adjusting probability of default and loss given default from Basel III for the purpose of accounting and applying that to carrying amount. Such approach considers various elements, including borrower type, credit rating, size of portfolio, loss emergence period and collection period, and applies consistent assumptions so as to model the measurement of inbuilt loss and determine variables based on historical loss experience and current conditions.

Similar provisioning requirements apply to other types of credits such as guarantees and acceptances and loans from the trust accounts.

Allowances for Loan Losses

Analysis of Allowance for Loan Losses

The following table presents the changes in our allowance for possible loan losses on a separate basis for the periods indicated.

	Year Ended 31 December			Nine Months Ended 30 September	
	2021	2022	2023	2023	2024
	(In billions of Won)				
Balance at the beginning of the period	₩1,178	₩1,226	₩1,456	₩1,456	₩1,739
Provisions of allowance for doubtful accounts	138	353	534	467	159
Write-offs	(228)	(202)	(316)	(235)	(227)
Disposal of non-performing loans	(15)	(31)	(51)	(44)	(74)
Recovering of loans written off	151	90	97	73	65
Exchange rate fluctuation and others	2	20	18	22	5
Balance at the end of the period	₩1,226	₩1,456	₩1,739	₩1,739	₩1,666

The following table sets forth summaries of our credits, on a separate basis and as reported to the FSC, as of the dates indicated. “Credits” refer to our total credits (as reported to the FSC based on the FSC’s asset classification criteria), the principal components of which include the total loan portfolio of our bank accounts, loans provided from our trust accounts and merchant bank accounts, and confirmed guarantees and acceptances (which are off-balance sheet items).

	As of 31 December						As of 30 September	
	2021		2022		2023		2024	
	Principal Amount	% of Total Credits	Principal Amount	% of Total Credits	Principal Amount	% of Total Credits	Principal Amount	% of Total Credits
	(In billions of Won, except percentages)							
Normal	₩292,672	99.2%	₩315,440	99.2%	₩331,038	99.1%	₩346,367	99.0%
Precautionary	1,597	0.5	1,872	0.6	2,046	0.6	2,706	0.8
Substandard	470	0.2	428	0.1	571	0.2	588	0.2
Doubtful	179	0.1	124	0.0	151	0.0	194	0.1
Estimated loss	108	0.0	111	0.0	156	0.0	158	0.0
Total credits⁽¹⁾	₩295,026	100%	₩317,975	100%	₩333,961	100%	₩350,013	100.0%
Allowances for credit losses	₩ 1,226	0.4%	₩ 1,456	0.5%	₩ 1,739	0.5%	₩ 1,666	0.5%

(1) Net of present value discounts; includes Won-denominated loans at fair value through profit or loss.

Allocation of Allowance for Loan Losses

The following table presents the allocation of our loan loss allowance by loan type as of the dates indicated, on a separate basis.

	As of 31 December						As of 30 September	
	2021		2022		2023		2024	
	Amount	Loans as % of Total Loans	Amount	Loans as % of Total Loans	Amount	Loans as % of Total Loans	Amount	Loans as % of Total Loans
	(In billions of Won, except percentages)							
Large-sized businesses	₩ 530	43.2%	₩ 542	37.2%	₩ 436	25.1%	₩ 273	16.4%
SMEs	421	34.3	671	46.1	970	55.8	1,056	63.4
Individuals	248	20.2	230	15.8	321	18.5	325	19.5
Others	27	2.2	12	0.9	11	0.6	12	0.7
Total allowance for loan losses	₩1,226	100.0%	₩1,456	100.0%	₩1,739	100.0%	₩1,666	100.0%

Loan Ageing Schedule

The following table shows the loan ageing schedules, excluding accrued interest and before allowance for loan losses and net deferred loan fees and costs, for all our loans as of the dates indicated.

	Current		Past Due up to 3 Months		Past Due 3 to 6 Months		Past Due More than 6 Months		Total
	Amount	%	Amount	%	Amount	%	Amount	%	Amount
As of:	(In billions of Won, except percentages)								
31 December 2021	₩282,689	99.6%	₩ 784	0.3%	₩ 96	0.0%	₩223	0.1%	₩283,792
31 December 2022	301,932	99.5	1,262	0.4	146	0.0	154	0.1	303,494
31 December 2023	314,291	99.3	1,811	0.6	224	0.1	117	0.0	316,444
30 September 2024	328,212	99.4	1,681	0.5	255	0.1	158	0.0	330,306

Loans to Companies in Workout and Rehabilitation

Our loans to borrowers under restructuring are managed and collected by our Credit Group. As of 31 December 2021, 2022 and 2023 and 30 September 2024, on a separate basis, 0.09%, 0.05%, 0.04% and 0.04%, respectively, of our total loans, or ₩237.1 billion, ₩163.7 billion and ₩143.8 billion and ₩151.4 billion, respectively, was to borrowers under restructuring, on a separate basis.

Non-Performing Loans

Non-performing loans are defined as loans past due by more than three months. These loans are generally rated “substandard” or below under the FSC guidelines.

The following tables set forth, as of the dates indicated, our total non-performing loans by type of borrower, on a separate basis.

	As of 31 December					
	2021			2022		
	Total Loans ⁽¹⁾	Non-Performing Loans	Non-Performing Loans %	Total Loans	Non-Performing Loans	Non-Performing Loans %
	(In billions of Won, except percentages)					
Corporate ⁽²⁾	₩164,440	₩499	0.3%	₩188,236	₩453	0.2%
Household	130,586	258	0.2	129,738	210	0.2
Total	₩295,026	₩757	0.3%	₩317,974	₩663	0.2%

	As of 31 December			As of 30 September		
	2023			2024		
	Total Loans ⁽¹⁾	Non-Performing Loans	Non-Performing Loans %	Total Loans	Non-Performing Loans	Non-Performing Loans %
	(In billions of Won, except percentages)					
Corporate ⁽²⁾	₩205,053	₩594	0.3%	₩215,841	₩611	0.3%
Household	128,908	284	0.2	134,172	330	0.2
Total	₩333,961	₩878	0.3%	₩350,013	₩940	0.3%

(1) Before allowance for loan losses and net deferred loan fees and costs.

(2) Includes loans to large corporations, SMEs and public and other.

10 Largest Non-Performing Loans

As of 30 September 2024, on a separate basis, our 10 largest non-performing loans accounted for 25.0% of our total non-performing loan portfolio. The following table shows, as of 30 September 2024, certain information regarding our 10 largest non-performing loans, on a separate basis.

	As of 30 September 2024		Industry
	Principal Outstanding	Allowance for Loan Losses	
	(In billions of Won)		
Borrower 1	₩ 48	₩ 3	Manufacturing
Borrower 2	47	44	Construction
Borrower 3	35	—	Retail
Borrower 4	30	18	Construction
Borrower 5	22	9	Manufacturing
Borrower 6	12	5	Construction
Borrower 7	12	0	Manufacturing
Borrower 8	10	0	Individual
Borrower 9	10	4	Real Estate
Borrower 10	7	0	Manufacturing
Total	₩233	₩ 83	

Sales of Non-Performing Loans

We have also issued securities backed by non-performing loans and other assets through special purpose companies. Some of these transactions involved transfers of loans in connection with asset securitisations. The assets are not included in our balance sheet as these transactions are classified as sold under K-IFRS.

We sell non-performing loans to savings banks and the Korea Asset Management Corporation. The aggregate principal amounts, on a separate basis, of non-performing loans we sold in connection with asset securitisation transactions were ₩143.8 billion, ₩145.6 billion and ₩530.0 billion in 2021, 2022 and 2023, respectively, and ₩530.0 billion and ₩463.5 billion for the nine months ended 30 September 2023 and 2024, respectively.

Non-Performing Loan Strategy

One of our primary objectives is to prevent our loans from becoming non-performing. Through our corporate credit rating system, we strive to limit or reduce our credit risk relating to future non-performing loans. Our credit rating system is designed to prevent our loan officers from extending new loans to borrowers with high credit risks based on the borrower's credit rating. Our early warning system is designed to bring any sudden increase in a borrower's credit risk to the attention of our loan officers, who then closely monitor such loans.

Notwithstanding the above, if a loan becomes non-performing, an officer at the branch level responsible for monitoring non-performing loans will commence due diligence of the borrower's assets, send a notice demanding payment or a notice that we will take legal action or prepare for legal action.

At the same time, we also initiate our non-performing loan management process, which begins with:

- identifying loans subject to a proposed sale by assessing the estimated losses from such sale based on the estimated recovery value of collateral, if any, for such non-performing loans;
- identifying loans subject to write-off based on the estimated recovery value of collateral, if any, for such non-performing loans and the estimated rate of recovery of unsecured loans; and
- on a limited basis, identifying commercial loans subject to normalisation efforts based on the cash flow situation of the borrower.

Once the details of a non-performing loan are identified, we pursue early solutions for recovery. Actual recovery efforts on non-performing loans are handled by several of our departments or units, depending on the nature of such loans and of the borrower.

The officers or agents of the responsible departments and units use a variety of methods to resolve non-performing loans, including:

- making phone calls and paying visits to the borrower requesting payment;

- continuing to assess and evaluate assets of our borrowers; and
- if necessary, initiating legal action such as foreclosures, attachments and litigation.

In order to promote speedy recovery on loans subject to foreclosures and litigation, our policy is to permit the branch responsible for handling these loans to transfer them to the relevant unit at headquarters or regional headquarters.

Foreclosure and Collateral

Generally, when a non-performing loan becomes overdue for more than three months, we foreclose on mortgages or exercise our security interests in respect of other collateral. At that time, we will petition a court to foreclose on collateral and to sell that collateral through a court-supervised auction. Under Korean law, that petition must be filed with a court that has jurisdiction over the mortgaged property, and must be filed together with a copy of the mortgage agreement and an extract of the court registry regarding the subject property. The court will then issue an order to commence the foreclosure auction, which will be registered in the court registry of the subject property. If no bidder bids at least the minimum amount set by the court on the first auction date, the court will set another date for a subsequent auction approximately one month later. Each time a new auction date is set, the minimum auction price will typically be lowered by 20.0%. Korean law does not provide for non-judicial foreclosure.

Korean financial institutions, including us, maintain general policies to assess a potential customer's eligibility for loans based on that entity's credit quality, rather than requiring a particular level of collateral, especially in the case of large corporate borrowers. As a result, the ratio of our collateral to non-performing corporate loans is relatively low when compared with our total exposures. For secured household loans, however, we generally impose limits on loan amounts based on the collateral we receive.

We reflect this collateral level when we estimate the future cash flow for our loans, which we calculate using a discounted cash flow method. With respect to loans to borrowers that we do not believe will be going concerns in the future, the lower collateral ratio has a direct effect on cash flow estimates and results in a higher level of allowances. With respect to loans to borrowers that we expect to be going concerns, the lower collateral ratio has an effect on cash flow estimates, but we also consider other factors, including future operating income and future asset disposals and restructuring, in determining allowance levels. Accordingly, for these latter borrowers, the effect of lower collateral levels on allowances is mitigated by other characteristics of the borrower, and that lower collateral level will not necessarily result in a higher level of allowances.

Loan Write-Offs

Our loan write-offs were ₩260.8 billion, ₩428.7 billion and ₩402.9 billion in 2021, 2022 and 2023, respectively, and ₩304.6 billion and ₩288.6 billion for the nine months ended 30 September 2023 and 2024, respectively.

Basic Principles

We attempt to minimise loans to be written-off, by practicing a sound credit approval process based on credit risk analysis prior to extending loans and a systematic management of outstanding loans.

Loans to be Written-Off

Loans are written-off if they are deemed to be uncollectible by falling under any of the following categories:

- loans for which collection is not foreseeable due to insolvency, bankruptcy, dissolution or the shutting down of the business of the debtor;
- loans for which collection is not foreseeable due to the death or disappearance of the debtor;
- loans for which expenses of collection exceed the collectable amount;
- loans on which collection is not possible through legal or any other means; or
- the portion of loans classified as "estimated loss," net of any recovery from collateral, which is deemed to be uncollectible.

Procedure for Write-Offs

All applications for our loan write-off are submitted to our credit group, whether they are corporate loans or individual loans. Such applications for write-off are generally submitted immediately after the relevant loan becomes one month past due, which our credit group will then evaluate. Once loans are written-off, they are derecognised from our balance sheet.

Credit Portfolio

The table below sets forth, on a separate basis, our credit portfolio (as reported to the FSC based on FSC's asset classification criteria) as of the dates indicated.

	As of 31 December			As of 30 September
	2021	2022	2023	2024
	(In billions of Won)			
Banking account				
Loans	₩296,518	₩317,265	₩333,255	₩347,972
Commercial papers (including guaranteed notes)	—	—	—	—
Other receivables	2	2	1	1
Confirmed acceptances and guarantees	11,234	14,480	17,518	19,743
Sub-total	₩307,753	₩331,747	₩350,774	₩367,716
Trust account				
Trust loans	₩ 175	₩ 84	₩ 76	₩ 46
Privately-placed corporate bonds	—	—	—	—
CP (including guaranteed notes)	—	—	—	—
Sub-total	₩ 175	₩ 84	₩ 76	₩ 46
Merchant banking account				
Loans	₩ 758	₩ 199	₩ 200	₩ —
Financial leases	—	—	—	—
Confirmed acceptances and guarantees	—	—	—	—
Sub-total	₩ 758	₩ 199	₩ 200	₩ —
Total credits⁽¹⁾	₩308,686	₩332,030	₩351,050	₩367,762

(1) Before present value discounts; does not include Won-denominated loans at fair value through profit or loss.

Investment Portfolio

We invest in and trade Won-denominated and, to a lesser extent, foreign currency-denominated securities for our own account to:

- maintain the stability and diversification of our assets;
- maintain adequate sources of back-up liquidity to match our funding requirements; and
- supplement income from our core lending activities.

In making securities investments, we take into account a number of factors, including macroeconomic trends, industry analysis and evaluation of credit.

Our investments in securities are also subject to a number of guidelines, including limitations prescribed under the Bank Act. Under these regulations, we must limit our investments in shares and securities with a maturity in excess of three years (other than monetary stabilisation bonds issued by the Bank of Korea, national government bonds and government guaranteed bonds) to 100.0% of our total Tier I and Tier II capital. Generally, we are also prohibited from acquiring more than 15.0% of the shares with voting rights issued by any other corporation (other than for the purpose of establishing or acquiring a subsidiary as permitted under the Regulation on the Supervision of the Banking Business). Further information on the regulatory environment governing our investment activities is set out in “*Regulation and Supervision*”.

Securities Classifications

The classification guidelines and methods of valuation for securities are as follows:

Classification	Description
<i>Financial assets at FVTPL</i>	Financial assets at fair value through profit or loss (FVTPL) include financial assets held-for-trading and financial assets designated upon initial recognition at fair value through profit or loss. Financial assets are classified as held-for-trading if they are acquired for the purpose of selling or repurchasing in the short term. Also, financial assets can be designated at FVTPL if assets or liabilities are measured in accordance with different standards or in order to get rid of or reduce accounting mismatch. Financial assets measured at FVTPL are measured at fair value and the gain or loss on valuation is recognised as profit or loss. Dividends and interest income from the financial assets are also recognised as profit or loss.
<i>Financial assets at FVOCI</i>	Financial assets that meet the following two conditions must be measured at fair value through other comprehensive income (FVOCI): (i) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, and (ii) the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets. Financial assets at FVOCI are measured at fair value after initial recognition. Gain or loss from changes in the fair value is recognised as other comprehensive income, except for (i) interest income in accordance with the effective interest rate method, (ii) dividends and (iii) foreign exchange differences on monetary assets that are directly recognised as profit or loss. When financial assets measured at FVOCI are disposed of, the cumulative income recognised in other comprehensive income is transferred to the current profit or loss. However, the cumulative income recognised for equity securities designated as financial assets measured at FVOCI is not transferred to the current profit or loss. The fair value of financial assets measured at FVOCI presented in foreign currencies is translated using the exchange rate as at the end of the reporting period. Changes in the fair value from exchange differences due to changes in amortised cost are recognised in the current profit or loss, while other changes are recognised directly in equity.
<i>Financial assets at amortised cost</i>	Financial assets that meet the following two conditions must be measured at amortised cost: (i) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding, and (ii) the objective of the entity's business model is to hold the financial asset to collect the contractual cash flows. After initial recognition, the financial assets are recognised at amortised cost using the effective interest rate, net of the allowance for doubtful accounts.

Privately-placed commercial paper, privately-placed corporate bonds and guaranteed notes are not subject to the above valuation method. Instead, they are classified as loans and are subject to the corresponding loan loss provisioning method.

Book Value

The following table sets out the book value of securities in our investment portfolio as of the dates indicated.

	As of 31 December			As of 30 September
	2021	2022	2023	2024
	(In billions of Won)			
Financial assets at FVTPL				
Stocks	₩ 117	₩ 64	₩ 118	₩ 103
Government and public bonds	1,031	2,069	4,555	6,465
Financial bonds	429	563	398	774
Corporate bonds	915	913	1,061	910
Beneficiary certificates	2,292	2,733	3,265	4,134
Securities denominated in foreign currencies	1,498	1,786	1,508	2,303
Derivative assets held for trading	4,101	9,852	5,966	5,664
Other securities (investment, etc.)	365	468	637	722
Convertible privately-placed bonds	171	7	7	8
Sub-total	₩10,919	₩18,455	₩17,515	₩21,083
Financial assets at FVOCI				
Stocks	₩ 801	₩ 715	₩ 610	₩ 651
Investments in partnership	0	0	—	—
Government and public bonds	9,783	9,875	9,261	8,325
Finance bonds	12,407	10,522	12,569	5,616
Corporate bonds and others	5,914	6,101	7,067	7,971
Other securities	80	89	33	30
Securities denominated in foreign currencies	6,249	5,659	7,355	8,826
Sub-total	₩35,234	₩32,961	₩36,894	₩31,418
Securities measured at amortised cost				
Government and public bonds	₩ 5,879	₩ 7,269	₩ 6,576	₩ 6,561
Finance bonds	1,353	7,892	7,376	7,268
Corporate bonds and others	12,089	18,615	18,726	17,754
Securities denominated in foreign currencies	3,166	3,890	3,680	3,516
Allowance for doubtful accounts	(19)	(83)	(20)	(21)
Sub-total	₩22,468	₩37,583	₩36,338	₩35,078
Total securities⁽¹⁾	₩68,621	₩88,999	₩90,747	₩87,579

(1) Excluding investment stocks using the equity method.

Maturity Analysis

The following table categorises our debt securities (carrying amount) by maturity as of 30 September 2024, on a separate basis.

	As of 30 September 2024			
	Within 1 Year	Over 1 but Within 5 Years	Over 5 but Within 10 Years	Over 10 Years
	(In billions of Won)			
Bonds	₩18,659	₩42,657	₩3,407	₩5,432
Subordinated bonds	—	—	—	—
Hybrid bonds	—	—	—	—
Others	—	—	—	—
Total	₩18,659	₩42,657	₩3,407	₩5,432

Concentrations of Risk

We held no securities of individual issuers where the aggregate book value of those securities exceeded 10% of our equity as of 30 September 2024.

Commitments and Guarantees

In the normal course of our operations, we make various commitments and guarantees to meet the financing and other business needs of our customers. Commitments and guarantees are usually in the form of, among others, payment guarantees for issuance of debentures, letters of guarantee for importers, commercial letters of credit and performance guarantees. The contractual amount of these financial instruments represents the maximum possible loss that would occur if the counterparty were to draw down the commitment or we were to fulfil our obligation under the guarantee and the counterparty were to fail to perform under the contract.

The following table sets forth our credit-related commitments and guarantees, as of the dates indicated.

	As of 31 December			As of 30 September
	2021	2022	2023	2024
	(In billions of Won)			
Acceptances and guarantees				
Financial guarantees in Won	₩ 365	₩ 445	₩ 496	₩ 382
Financial guarantees in foreign currencies	3	3	2	37
Confirmed payment guarantees in Won	1,858	2,446	2,447	2,738
Confirmed payment guarantees in foreign currencies	9,788	12,531	14,951	16,393
Contingent payment guarantees	4,845	5,657	6,137	5,878
Sub-total	₩16,859	₩ 21,081	₩ 24,033	₩ 25,428
Bills endorsed	12	11	1	1
Total acceptances and guarantees and bills endorsed	₩16,871	₩ 21,092	₩ 24,034	₩ 25,429
Commitments				
Loans in Won	₩57,398	₩ 60,463	₩ 65,144	₩ 66,830
Loans in foreign currencies	23,830	28,960	30,838	33,886
Credit lines on asset-backed securities	248	85	118	157
Purchase of securities ⁽¹⁾	9,343	11,875	13,626	14,035
Discounted notes from merchant banking	790	620	770	660
Total commitments	₩91,609	₩102,003	₩110,496	₩115,567

(1) Includes purchases of asset-backed commercial papers

We have credit-related commitments that are not reflected on the balance sheet, which primarily consist of commitments to extend credit and letters of credit. Commitments to extend credit, including credit lines, represent unfunded portions of authorisations to extend credit in the form of loans. These commitments expire on fixed dates and a customer is required to comply with predetermined conditions to draw funds under the commitments.

Commercial letters of credit are undertakings on behalf of customers authorising third parties to draw drafts on us up to a stipulated amount under specific terms and conditions. They are generally short-term and collateralised by the underlying shipments of goods to which they relate and therefore have less risk.

Other financial and performance guarantees are irrevocable promises to make payments to beneficiaries in the event that our customers fail to fulfil their obligations or to perform under certain contracts. Liquidity facilities to special purpose entities (“SPEs”) represent irrevocable commitments to provide contingent liquidity credit lines to SPEs established by our customers in the event that a triggering event such as shortage of cash occurs.

The commitments and guarantees do not necessarily represent our exposure since they often expire unused.

Funding

We fund our lending and other activities using various sources, both domestic and foreign. Our primary funding strategy is to maintain stable and low-cost funding. We have in the past achieved this in part by increasing the average balances of low-cost customer deposits, in particular demand deposits and savings deposits. Customer deposits are our principal funding source. We also acquire funding through borrowings (including from other financial institutions, the Bank of Korea, other Government-affiliated funds and entities and other lenders, call money, bonds sold under repurchase agreements and bills sold) and debentures (including senior and subordinated debentures).

Deposits

Although the majority of our deposits are short-term, it has been our experience that the majority of our depositors generally roll over their deposits at maturity, providing us with a stable source of funding. The following tables show our average balances of deposits and the average rates paid on our deposits, on a separate basis, for the periods indicated.

	Year Ended 31 December								
	2021			2022			2023		
	Average Balance	Interest Expense	Average Rate Paid ⁽¹⁾	Average Balance	Interest Expense	Average Rate Paid	Average Balance	Interest Expense	Average Rate Paid
	(In billions of Won, except percentages)								
Low cost deposits	₩117,049	₩ 246	0.2%	₩121,220	₩ 592	0.5%	₩111,031	₩1,024	0.9%
Time deposits	130,855	1,381	1.1	141,226	2,936	2.1	164,341	6,368	3.9
Instalment deposits . . .	6,270	122	1.9	5,775	118	2.0	6,013	199	3.3
Marketable deposits	1,921	22	1.2	11,750	309	2.6	19,074	796	4.2
Deposits in foreign currencies	35,210	30	0.1	41,594	279	0.7	40,647	939	2.3
Total deposits⁽²⁾	₩291,304	₩1,800	0.6%	₩321,565	₩4,234	1.3%	₩341,106	₩9,327	2.7%

	Nine Months Ended 30 September					
	2023			2024		
	Average Balance	Interest Expense	Average Rate Paid (Annualised)	Average Balance	Interest Expense	Average Rate Paid (Annualised)
	(In billions of Won, except percentages)					
Low cost deposits	₩111,290	₩ 756	0.7%	₩111,804	₩ 771	0.7%
Time deposits	162,338	4,685	2.9	179,988	5,064	2.8
Instalment deposits	5,803	139	2.4	6,214	169	2.7
Marketable deposits	18,181	559	3.1	19,178	589	3.1
Deposits in foreign currencies	40,746	676	1.7	40,127	795	2.0
Total deposits⁽²⁾	₩338,359	₩6,815	2.0%	₩357,311	₩7,388	2.1%

(1) Defined as interest expense of each deposit divided by the average of its daily ending balances.

(2) Calculated as a sum of Won-denominated deposits, foreign currency deposits, certificate of deposits, Won-denominated bonds sold under repurchase agreements and bills sold.

The commitments and guarantees do not necessarily represent our exposure since they often expire unused.

Maturities of Deposits

The following table presents, on a consolidated basis, the remaining maturities of our deposits as of 30 September 2024.

	As of 30 September 2024					
	On Demand	Less than 1 Month	1 – 3 Months	3 Months – 1 Year	1 Year – 5 Years	More than 5 Years
	(In billions of Won)					
Deposits	₩151,631	₩34,782	₩56,885	₩125,008	₩18,360	₩1,600
	₩388,266					

Borrowings

The following table presents information regarding our borrowings as of the dates indicated.

	As of 31 December						As of 30 September	
	2021		2022		2023		2024	
	Balance Outstanding	Interest Rate	Balance Outstanding	Interest Rate	Balance Outstanding	Interest Rate	Balance Outstanding	Interest Rate
(In billions of Won, except percentages)								
Borrowing in Won								
Bank of Korea borrowings	₩ 4,474	0.25%	₩ 5,085	0.25~1.75%	₩ 3,421	0.25~2.00%	₩ 4,713	0.25~2.00%
Government borrowings	1,933	0.50~2.16%	2,062	0.50~5.61%	2,155	0.50~5.16%	2,304	0.50~5.16%
Other borrowings	3,480	0.00~2.80%	3,585	0.00~3.43%	4,844	0.00~3.60%	4,780	0.00~3.50%
Sub-total	₩ 9,886		₩10,732		₩10,420		11,257	
Borrowing in foreign currencies								
Bank overdrafts	313	0.58~9.99%	381	0.01~12.50%	268	0.00~20.13%	1,427	0.00~19.15%
Other borrowings	5,130	-0.57~5.76%	9,665	0.66~8.50%	9,250	0.00~7.70%	7,926	0.00~7.90%
Sub-total	₩ 5,443		₩10,045		₩ 9,519		9,353	
Call money								
Call money in foreign currencies	1,092	-0.30~17.71%	971	0.09~5.60%	934	0.07~7.40%	1,212	0.35~6.25%
Bonds sold under repurchase agreements								
Bonds sold under repurchase agreements in Won	₩ 0	0.00%	₩ 0	0.00%	₩ 0	0.00%	0	0.00%
Bonds sold under repurchase agreements in foreign currencies	1,079	0.81~1.06%	488	5.55~5.60%	1,141	6.03~6.50%	1,211	5.47~6.25%
Sub-total	₩ 1,079		₩ 488		₩ 1,141		1,211	
Others								
Bills sold	26	0.00~1.65%	26	0.00~4.39%	27	0.00~4.06%	22	0.00~3.39%
Deferred origination costs	—		(5)		(7)		(5)	
Total	₩17,524		₩22,257		₩22,034		23,050	

RISK MANAGEMENT

As a financial services provider, we are exposed to various risks related to our lending and trading businesses, our deposit-taking activities and our operating environment. We strive to maintain a comprehensive system of risk management to understand, measure and monitor such risks in order to ensure the soundness of our assets and stabilise long-term profitability.

Our Risk Management Group monitors and manages our risk exposure and directly implements and ensures compliance with our risk policies and guidelines at an operational level. It reports to our Risk Management Committee and our Risk Management Steering Committee and is divided into three departments:

- the credit risk management department, which is responsible for credit risk and credit concentration risk;
- the credit review department, which is responsible for planning and executing credit review policies; and
- the integrated risk management department, which is responsible for market risk, operational risk and other risks.

Our Risk Management Committee, comprised of three Outside Directors and one Non-Standing Director, is the centralised body ultimately responsible for risk management. It provides board-level direction regarding risk management strategies and policies and reports to our board of directors. Our Risk Management Steering Committee, consisting of the Heads of six Groups (Risk Management Group, Global Business Group, Marketing Group, Management Planning Group, Credit Group and Financial Markets Group), reports directly to the Risk Management Committee and our president and chief executive officer, and works with our Risk Management Group to implement the execution of these strategies and policies.

Credit Risk Management

Credit Risk Assessment and Management

Credit risk is the risk of losses in the event of borrower defaults. Our policy objectives in credit risk management are to improve asset quality, reduce non-performing loans and minimise credit concentration risk through diversified, balanced and risk-weighted loan portfolios. To this end, we manage credit risk by establishing credit risk limits, assessing current risk levels and monitoring the status of borrowers, including their compliance with risk limits, asset quality, default rate and level of risk exposure.

We assess and manage all types of credit exposures, including loans, guarantees, investment securities and derivative products. The current level of credit risk is determined by “expected” and “unexpected” loss levels. We calculate the expected loss level based on the probability of default, the loss given default and the exposure at default, and use the measured expected loss to determine interest rates and provision levels in relation to new or renewed credits. The unexpected loss level, which incorporates the possibility of fluctuations in the expected loss level, is calculated by the Advanced Internal Rating-Based method as proposed by the Basel Committee for internal control purposes and by a risk-weighted method approved by the FSS for use with regard to external regulations.

Credit Evaluation and Approval

In general, we evaluate the credit of every loan applicant and guarantor before approving any loans. The evaluation and approval process differs depending on whether the loan is a corporate loan or a retail loan.

Our corporate credit evaluation system assigns credit risk ratings to corporate borrowers by measuring and analysing various quantitative and qualitative risk factors. After a preliminary credit rating is generated in light of the borrower’s probability of default and past ratings, the rating is adjusted based on the borrower’s ownership structure, corporate history, outlook, contingent liabilities, credit history and other special considerations to produce a final credit rating. We may apply different models tailored to specific characteristics of the potential borrower to make the rating more predictive and ensure a more stable calculation of the probability of default. Evaluation results are used to determine loan approval and loan size and to set loan limits at the industry level and the individual loan account level.

Retail exposure consists of secured exposures (consisting primarily of housing loans) and other unsecured exposures. For evaluating and approving retail credit applications, we use a probability of default segmentation system that classifies retail exposures to appropriate asset categories based on borrower- and transaction-specific

characteristics and arrears information. The system is designed to form asset categories consisting of exposures with similar risk characteristics and reclassifies exposures when there is reason for significant changes in the probability of default.

Market Risk Management — Non-Trading Activities

Liquidity Risk Management

Liquidity risk is the risk of insolvency, default or loss due to disparities between inflow and outflow of funds. It includes the risk of having to obtain funds at a high price or having to dispose of securities at an unfavourable price due to lack of available funds. We seek to minimise liquidity risk through early detection of risk factors related to sourcing and managing funds and by maintaining an appropriate level of liquidity through systematic management.

Our liquidity risk management covers all classes of assets and liabilities on and off the balance sheet that are related to capital inflows and outflows. Liquidity risk is managed in accordance with the risk limits and guidelines established internally and by relevant regulatory authorities. Pursuant to principal regulations applicable to banks as promulgated by the FSC, we are required to keep a specific Won currency liquidity coverage ratio (LCR) and a foreign currency liquidity coverage ratio (FLCR) and we must maintain relevant ratios above certain minimum levels. Specifically, the FSC requires us and other Korean commercial banks to maintain LCR of not less than 100% and FCLR of not less than 80%. The minimum LCR and FCLR were temporarily lowered between 2020 and 2024 due to the volatility and uncertainty facing the financial markets as a result of the COVID-19 pandemic, but as of the date of this Offering Circular, the applicable LCR and FCLR have been restored to 100% and 80%, respectively.

We use a customer behaviour model for more advanced forecasting of asset and liability maturities and manage a contingency plan for timely response to liquidity crises.

The following tables show our (i) average liquidity coverage ratio and (ii) average foreign currency liquidity coverage ratio, each for the month of September 2024 in accordance with the regulations of the FSC.

Average Liquidity Coverage Ratio

	For the Month of September 2024
	<i>(In billions of Won, except percentages)</i>
High liquid assets (A)	₩ 79,811
Net cash outflows over the next 1 month (B)	77,320
Cash outflow	111,541
Cash inflow	34,221
Liquidity coverage ratio (A/B)	103.2%

Average Foreign Currency Liquidity Coverage Ratio

	For the Month of September 2024
	<i>(In millions of US\$, except percentages)</i>
High liquid assets (A)	US\$10,212
Net cash outflows over the next 1 month (B)	5,862
Liquidity coverage ratio (A/B)	174.2%

Market Risk Management — Trading Activities

Trading activities we recognise as entailing market risk exposure include:

- trading activities for our account to realise short-term profits in debt and equity markets and foreign exchange markets based on short-term forecast of changes in the market situation; and

- trading activities involving derivatives, such as swaps, forwards, futures and option transactions, to realise profits primarily from arbitrage transactions and, to a lesser extent, from selling derivative products to our customers and to hedge market risk incurred from those activities.

Our Risk Management Committee decides the overall price risk ceiling and distributes appropriate risk limits to each trading activity.

Commencing in 2023, we replaced the use of daily value at risk (“**VaR**”) with Basel III’s revised standardised model to measure market risk. Under this model, we measure our market risk capital by aggregating (i) risk capital measured using the sensitivities-based method, (ii) default risk capital and (iii) residual risk add-on:

- risk capital measured using the sensitivities-based method represents the linear and non-linear losses that can result from adverse changes in interest rates, credit spreads, equity prices, foreign exchange rates and commodities prices;
- default risk capital represents the losses that can result from any unexpected default of an entity not contemplated under the sensitivities-based method; and
- residual risk add-on represents any other losses that are not contemplated under the sensitivities-based method or are not considered to result from the risk of default.

The following table shows our market risk capital for each category of market risk as of 30 September 2024:

<u>Risk Categories</u>		<u>Risk Capital</u> (in billions of Won)
Sensitivities-based risk	General interest rate risk	₩ 67,927
	Credit spread risk: non-securitizations	52,535
	Credit spread risk: securitizations (non-correlation trading portfolio)	—
	Credit spread risk: securitizations (correlation trading portfolio)	—
	Equity risk	27,563
	Foreign exchange risk	399,325
	Commodity risk	—
Default risk	Non-securitizations	38,549
	Securitizations (non-correlation trading portfolio)	—
	Securitizations (correlation trading portfolio)	—
Residual risk add-on		943
Total		<u>₩586,844</u>

Price Risk Management

Price risk is the risk of holding or taking positions in equities and equity-related derivatives’ delta equivalent position. We separate price risk due to general market variables such as stock prices, exchange rates and interest rates from price risk due to events that only affect particular issuers.

Our trading equity portfolio consists of stocks listed on the KRX KOSPI Market or the KRX KOSDAQ Market and nearest-month or second nearest-month futures contracts under strict limits on diversification as well as limits on positions. We have been particularly focused on managing risk in these equities due to the level of volatility in the Korean stock market. On a separate basis, we held no equity securities denominated in Won in our trading account as of 30 September 2024.

Interest Rate Risk Management

Interest rate risk arises when interest rate fluctuations cause unexpected changes in the value of rate sensitive assets and liabilities. The principal objectives of our interest rate risk management are to generate stable net interest income and to protect our net asset value against such fluctuations.

We monitor and manage our interest rate risk based on various analytical measures such as interest rate gap, duration gap and net portfolio value and net interest income simulations, and also monitor our interest rate VaR

limits, interest rate earnings at risk (“**EaR**”) limits and interest rate gap ratio limits on a monthly basis. Using the standard framework established by the Bank for International Settlements, we measure our interest rate VaR and interest rate EaR based on simulated estimations of the maximum decrease in net asset value and net interest income in a one-year period based on various scenario analyses of historical interest rates. Our integrated risk management department monitors compliance with interest rate risk exposure limits set by our Risk Management Committee.

Operational and Other Risk Management

Operational Risk Management

We define operational risk broadly to include all financial and non-financial risks, other than credit and market risk, resulting from inadequate internal processes, personnel and systems or from external events. Such risks include legal risk, but exclude strategic and reputational risk.

Through our operational risk management, we strive to not only satisfy regulatory requirements, but also provide internal support through the cultivation of a strong risk management culture, reinforcement of internal controls, improvement of work processes and provision of timely feedback to our management members and staff. We regularly measure operational risk and refine operational risk policies and procedures to manage and control the level of risk arising from changes in operational environment and internal control. In addition, we maintain a risk and control self- assessment (RCSA) system to ensure proper monitoring and measurement of operational risk in each of our business groups and have internal control managers in all of our departments and branches to update such self-assessments on a quarterly basis.

Other Risk Management

Other risks include strategic and reputational risks. As these risks are difficult to quantify, we use qualitative risk and control self-assessments to monitor and limit the level of risk.

MANAGEMENT AND EMPLOYEES

Management

Board of Directors

Our board of directors has the ultimate responsibility for managing our affairs. The board currently comprises two Standing Directors, one Non-Standing Director and six Outside Directors.

Our articles of incorporation provide that the board must have at least five and up to eleven directors. Standing directors must comprise less than 50% of the total number of directors. Each standing director is elected for a term of office up to three years as decided in the meeting of shareholders, and each outside director is elected for a term of office up to two years. These terms are subject to the Korean Commercial Code, the Bank Act, the Act on the Corporate Governance of Financial Companies (in effect since 1 August 2016) and related regulations. Each director may be re-elected, subject to these laws and regulations.

Our board of directors meets regularly on a quarterly basis to discuss and resolve various corporate matters. The board may also convene for additional extraordinary meetings at the request of any of the directors.

The names and positions of our directors are set forth below. The business address of all of the directors is our registered office at 35 Eulji-ro, Jung-gu, Seoul, Korea.

Standing Directors

As of the date of this Offering Circular, we have two Standing Directors, who are full-time employees of the Bank and hold executive positions as below.

<u>Name</u>	<u>Age</u>	<u>Position</u>	<u>Officer Since</u>	<u>Term Ends</u>
Ho Sung Lee	60	President and Chief Executive Officer	1 January 2025	31 December 2026
Byung Jin Min	58	Standing Member of Audit Committee	23 March 2023	Annual General Meeting 2024

Mr. Ho Sung Lee, age 60, has served as our President and CEO since 1 January 2025. Prior to serving as our President and CEO, he served as the President and CEO of Hana Card and served at various roles with us. Mr. Lee has an undergraduate degree in asset management from Kyung Hee Cyber University.

Mr. Byung Jin Min, age 58, has served as our Standing Member of Audit Committee since 23 March 2023. Prior to serving as our Standing Director, he served as the Deputy Governor and the Director General at the Financial Supervisory Service. Mr. Min has an undergraduate degree from Seoul National University in business administration and an M.B.A. from Thunderbird School of Global Management at Arizona State University.

Non-Standing Directors

As of the date of this Offering Circular, we have one Non-Standing Director, who is neither a full-time employee nor an executive officer of the Bank but is otherwise affiliated with the Bank, as below.

<u>Name</u>	<u>Age</u>	<u>Position</u>	<u>Director Since</u>	<u>Term Ends</u>	<u>Position Outside the Bank</u>
Jong Moo Park	57	Non-Standing Director	23 March 2023	Annual General Meeting 2024	Deputy President, Hana Financial Group

Outside Directors

Our Outside Directors are selected based on their experience and knowledge in diverse areas, which include law, finance, economics, management and accounting. We currently have six Outside Directors, all of whom were nominated by the Outside Director Candidate Recommendation Committee and approved by our shareholders. As of the date of this Offering Circular, our outside directors are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>	<u>Director Since</u>	<u>Term Ends</u>
Jong Hak Sohn	63	Outside Director	12 August 2022	Annual General Meeting 2024
JinQ Jeon	53	Outside Director	25 April 2022	Annual General Meeting 2024
Hyun Cha Choe	62	Outside Director	9 July 2021	Annual General Meeting 2024
Young Sun Kwon	60	Outside Director	20 March 2024	Annual General Meeting 2025
Do Jin Kim	65	Outside Director	20 March 2024	Annual General Meeting 2025
Sangtai Choi	68	Outside Director	20 March 2024	Annual General Meeting 2025

Board Practises

Committees of the Board of Directors

We currently have five management committees that serve under the board:

- Audit Committee;
- Evaluation and Compensation Committee;
- Outside Director Candidate Recommendation Committee;
- Risk Management Committee; and
- Consumer Risk Management Committee.

The board appoints each member of the above committees except for members of the Audit Committee, who are elected by our shareholders at the annual general meeting.

Pursuant to the Financial Corporate Governance Act, which was newly amended in July 2024, we are required to establish an internal control committee under the board. The necessary amendment to our articles of incorporation for the establishment and operation of the internal control committee became effective as of 24 December 2024, and the committee members will be appointed at the first board meeting scheduled in 2025.

Audit Committee

The Audit Committee consists of three Outside Directors, Sangtai Choi, Jong Hak Sohn and JinQ Jeon, and one Standing Director, Byung Jin Min. The chairperson is Jong Hak Sohn. This committee reviews all audit and compliance-related matters and makes recommendations to our board. It is also responsible for the following:

- establishing, executing and evaluating the results of our internal audit plan (including business, financial, management, compliance and IT audits);
- appointing and/or dismissing the general manager of our auxiliary audit division;
- evaluating our internal control system; and
- appointing and overseeing our outside auditors and setting internal procedures or making decisions on matters that are related to auditing.

The committee holds regular meetings quarterly.

The names and positions of our executive officers as of the date of this Offering Circular are set out below. All of our executive officers are employed on a full-time basis.

<u>Name</u>	<u>Age</u>	<u>Position</u>	<u>Officer Since</u>	<u>Term Ends</u>
Ho Sung Lee	60	President and Chief Executive Officer	1 January 2025	31 December 2026
Byung Joon Park	58	Deputy President	1 January 2023	31 December 2025
Han Uk Kim	56	Deputy President	1 January 2023	31 December 2025
Jeong Taek Oh	56	Deputy President	1 January 2023	31 December 2025
Seon Yong Lee	57	Deputy President	1 January 2023	31 December 2025
Dong Won Lee	57	Deputy President	1 January 2021	31 December 2026
Young Hun Kim	53	Deputy President	1 January 2024	31 December 2025
Ho Jin Jeon	56	Deputy President	1 January 2024	31 December 2025
Eun Bae Lee	56	Deputy President	1 January 2024	31 December 2025
Young Soon Cho	55	Deputy President	1 January 2024	31 December 2025
Jae Chol Lee	55	Deputy President	1 January 2024	31 December 2025
Dong Yeol Lee	53	Deputy President	1 January 2024	31 December 2025
Yung Ryul Ko	56	Deputy President	1 January 2025	31 December 2025
Seung Goo Woo	56	Deputy President	1 January 2025	31 December 2025
Jae Heon Lee	56	Deputy President	1 January 2025	31 December 2025
Jin Woo Kim	56	Deputy President	1 January 2025	31 December 2025
You Sugk Seo	52	Deputy President	1 January 2025	31 December 2025
Joon Hyung Chung	54	Managing Director	1 January 2024	31 December 2025
Myeong Hwan Bang	53	Managing Director	1 January 2024	31 December 2025
Kyeong Cheol Yoo	53	Managing Director	1 January 2024	31 December 2025
Chang Wook Pae	53	Managing Director	1 January 2024	31 December 2025
Hee Soo Jung	52	Managing Director	1 January 2024	31 December 2025
Beom Jun Cho	49	Managing Director	1 January 2024	31 December 2025
Young Keon Kye	55	Managing Director	1 January 2025	31 December 2025
Young Jun Lee	53	Managing Director	1 January 2025	31 December 2025
Young Ho Kim	55	Managing Director	1 January 2025	31 December 2025
Joong Gun Seo	54	Managing Director	1 January 2025	31 December 2025
Young Seok Jeong	54	Managing Director	1 January 2025	31 December 2025
Yu Gun Kwak	50	Managing Director	1 January 2025	31 December 2026

Employees

As of 30 September 2024, on a separate basis, we had a total of 11,272 employees consisting of 10,597 full-time employees and 617 contract-based employees (including 554 part-time contract-based employees). Employee compensation is based on a combination of base salary and wages, overtime and periodic bonuses. Bonuses are paid based on individual performance and business unit performance. We grant our full-time employees annual increases in base salary. For the years ended 31 December 2021, 2022 and 2023 and the nine months ended 30 September 2024, our salaries (which include regular wages, overtime and bonuses) amounted to ₩1,618 billion, ₩1,615 billion, ₩1,655 billion and ₩ 1,264 billion, which represented 54.4%, 48.7%, 48.0% and 49.8% of our total general and administrative expenses, respectively. We also provide a wide range of benefits to our full-time employees, including medical insurance, employment insurance and life insurance. We believe that our compensation package is similar to that offered by our peer financial institutions. We have not experienced any material strikes or labour disputes in recent years, and we consider labour relations with members of our work-force to be good. However, there can be no assurance that we will be able to maintain such a working relationship with our employees and will not experience labour disputes resulting from disagreements with the labour unions in the future.

As of the date of this Offering Circular, we have one labour union, which was created on 1 January 2017 upon the merger of the two existing unions, the Korea Exchange Bank branch of the Korean Financial Industry Union (established in 1960) and the Hana Bank branch of the Korean Financial Industry Union (established in 1982). Every two years, our management and labour union negotiate and enter into a new collective bargaining agreement that has a two-year duration, while annual wage adjustments are negotiated every year. On 27 January 2023, we entered into a collective bargaining agreement with the labour union. Since November 2024, our management and labour union have been negotiating a collective bargaining agreement for the period starting in 2025, which is expected to be finalised in early 2025.

In accordance with the National Pension Act, we contribute an amount equal to 4.5% of employee wages, and each employee contributes 4.5% of his or her wage into each employee's personal pension account. In addition, in accordance with the Guarantee of Worker's Retirement Benefits Act, we have adopted a retirement pension plan for our employees. Contributions under the retirement pension plan are deposited annually into a financial institution, and an employee may elect to receive a monthly pension or a lump-sum amount upon retirement. Our retirement pension plan is in the form of a defined benefit plan, which guarantees a certain payout at retirement, according to a fixed formula based on the employee's average salary and the number of years for which the employee has been a plan member. Under Korean law, we may not terminate the employment of full-time employees except under certain circumstances.

Shareholders

The following table presents information regarding the beneficial ownership of our common shares as of 30 September 2024 by each person or entity known to us to own beneficially more than 5.0% of our outstanding common shares.

Except as otherwise indicated, each shareholder identified by name has:

- sole voting and investment power with respect to its shares; and
- record and beneficial ownership with respect to its shares.

<u>Beneficial Owner</u>	<u>Number of Common Shares Owned</u>	<u>% of Ownership</u>
Hana Financial Group	<u>1,071,915,717</u>	<u>100%</u>
Total	<u><u>1,071,915,717</u></u>	<u><u>100%</u></u>

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

As of 30 September 2024, there were ₩767 million loans outstanding made by us to our key management members. There are no guarantees provided by us and our consolidated subsidiaries for the benefit of any of our directors or executive officers. None of the directors or executive officers has or has had any interest in any transactions effected by us which are or were unusual in their nature or conditional or significant to our business and which were effected during the current or immediately preceding year or were effected during an earlier year and remain in any respect outstanding or unperformed.

As a subsidiary of Hana Financial Group, we engage from time to time in ordinary course of business activities with other subsidiaries of Hana Financial Group, including cross-selling activities. See Note 51 of the notes to our consolidated financial statements included in this Offering Circular.

HANA FINANCIAL GROUP

Hana Financial Group was established on 1 December 2005 through a share transfer in accordance with the Commercial Act of Korea and the Financial Holding Companies Act. After obtaining the necessary approvals from the FSC, the shareholders of Original Hana Bank, Hana Securities Co., Ltd. (“**Hana Securities**”), Hana Information & System Co., Ltd. and Hana Institute of Finance (together, the “**Original HFG Subsidiaries**”) transferred all of their common shares in the Original HFG Subsidiaries to the newly formed Hana Financial Group in exchange for common shares of Hana Financial Group in proportion to their respective shareholdings in the relevant Original HFG Subsidiaries. On 12 December 2005, the common shares of Hana Financial Group were listed on the Korea Exchange.

The Bank and Hana Securities serve as the main distribution channels for Hana Financial Group. Through the network of 601 domestic branches and sub-branches of the Bank, 19 overseas branches of the Bank and 54 domestic branches of Hana Securities, each as of 30 September 2024, Hana Financial Group delivers a wide range of financial products and services to customers, while Hana Card, Hana Capital, Hana Life, Hana Asset Trust and Finnq (all as defined below) focus their efforts on developing innovative financial products. The following is the organisational chart of Hana Financial Group as of the date of this Offering Circular:



Hana Securities

Hana Securities Co., Ltd. (renamed in 2022 from Hana Financial Investment Co., Ltd.; “**Hana Securities**”) is a wholly owned subsidiary of Hana Financial Group, engaged in the asset management and investment banking business. On 31 May 2005, Original Hana Bank acquired 100% of the outstanding common shares of Hana Securities from the Korea Deposit Insurance Corporation for ₩475 billion. Hana Securities was incorporated in January 1977 as an asset management company. In connection with the establishment of Hana Financial Group, Original Hana Bank transferred all of the outstanding common shares of Hana Securities to Hana Financial Group on 1 December 2005, for 16,278,619 common shares of Hana Financial Group. On 1 December 2008, Hana Securities expanded its business into investment banking by merging with Hana Investment Bank. Hana Futures Co., Ltd. (previously a wholly-owned subsidiary of Hana Financial Group), which provides domestic and overseas trading and brokerage services, merged with and into Hana Securities in August 2016.

Hana Card

Hana Card Co., Ltd. (“**Hana Card**”) provides credit cards and other related services as permitted under the Specialised Credit Financial Business Act. It was incorporated in October 2009 as a result of a spin-off of Original Hana Bank’s credit card business. Pursuant to the spin-off plan, Original Hana Bank transferred to Hana Card Co., Ltd., a newly formed company, the assets and liabilities related to Original Hana Bank’s credit card business (other than those relating to corporate purchase cards, which were retained by Original Hana Bank), and all common stock of Hana Card Co., Ltd. was distributed to Hana Financial Group. On 11 December 2009, Hana Financial Group entered into a joint investment agreement with SK Telecom, a Korean telecommunications services company, pursuant to which SK Telecom acquired a 49% equity interest in Hana Card Co., Ltd. for ₩400 billion on 25 February 2010, and Hana Card Co., Ltd. was renamed Hana SK Card Co., Ltd. On 1 December 2014, Hana SK Card Co., Ltd. merged with and into the credit card business spun off from Korea Exchange Bank, and the surviving entity from the merger was renamed Hana Card. As of 30 September 2024, Hana Financial Group owned 100% of Hana Card.

Hana Capital

Established in February 1987, Hana Capital Co., Ltd. (“**Hana Capital**”) provides facility leasing, instalments, and personal loans to consumers. Originally a member company of the Kolon Group, Hana Capital became a subsidiary of Original Hana Bank in 2004. Following the formation of the Hana Financial Group, Original Hana

Bank transferred all of its common shares of Hana Capital to Hana Financial Group. In February 2018, Hana Financial Group acquired the remaining 49.87% stake in Hana Capital from Kolon Industries Inc. and other small shareholders, and Hana Capital became a wholly-owned subsidiary of Hana Financial Group.

Hana Life

Hana Life Insurance Co., Ltd. (“**Hana Life**”) engages in the life insurance business and sells life insurance products through the Bank’s branch network. Hana Life was incorporated in November 1991 under the name of France Life Insurance Company and was acquired by Allianz AG in 1998. On 21 February 2003, Original Hana Bank acquired 50.0% of the issued share capital of France Life Insurance Company and changed its name to Hana Life Insurance Co., Ltd. In 2007, Original Hana Bank acquired the remaining 50.0% stake in Hana Life from Allianz AG and subsequently contributed all of its shares of Hana Life to Hana Financial Group. In March 2008, Hana Financial Group formed a strategic alliance with HSBC Insurance (Asia-Pacific) Holdings Limited (“**HSBC Insurance**”) and sold a 50.0% minus one share stake in Hana Life to HSBC Insurance. In May 2013, following HSBC Insurance’s decision to exit the Korean market, Hana Financial Group reacquired the 50.0% minus one share stake in Hana Life from HSBC Insurance, and Hana Life again became a wholly-owned subsidiary of Hana Financial Group.

Hana Insurance

In May 2020, Hana Financial Group acquired a 70% interest in The-K Non-Life Insurance from the Korea Teachers’ Credit Union, which retained the remaining 30%. In June 2020, the subsidiary was renamed as Hana Insurance Co., Ltd., and in July 2020, Hana Financial Group increased its equity interest to 85% through a capital contribution. Hana Insurance is the second insurance arm of Hana Financial Group offering comprehensive non-life insurance products, such as auto, health, travel and leisure insurance.

Hana Savings Bank

Hana Savings Bank was incorporated on 8 February 2012 upon Hana Financial Group’s acquisition of certain assets and liabilities of Jeil II Savings Bank and Ace Mutual Savings Bank. In September 2012, Hana Savings Bank acquired Korea Savings Bank. Hana Savings Bank provides a range of deposit products and small-loan finance services and operates eight branches located in Korea.

Hana Asset Trust

Established in 2004, Hana Asset Trust Co., Ltd. (“**Hana Asset Trust**”) provides real estate trust products and related services.

Hana Alternative Asset Management

Established in 2006, Hana Alternative Asset Management Co., Ltd. (renamed in 2017 from Hana Asset Management Co., Ltd.; “**Hana Alternative Asset Management**”) provides asset management and investment consulting services. Hana Alternative Asset Management became a wholly-owned subsidiary of Hana Financial Group in 2016.

Hana F&I

Hana F&I was established in 1989 as a specialised finance institution. In December 2013, it was changed to a non-performing loan (“**NPL**”) investment management company and has been active in NPL markets since 2014. Hana F&I provides investment management services in connection with corporate restructuring, provision of credit services to loss-making businesses, and NPL investment and management.

Hana Ventures

Hana Ventures Inc. (“**Hana Ventures**”) was established on 4 October 2018 as a wholly-owned subsidiary of Hana Financial Group. As of 30 September 2024, Hana Ventures invested over ₩109 billion in various start-up companies in sectors ranging from fintech and information and communications technology (ICT) to healthcare and Internet-based content.

Hana Investors Services

Established in 2003, Hana Investors Services Co., Ltd. (“**Hana Investors Services**”) provides financial trust management and accounting services for corporations, banks or institutional investors. Hana Investors Services became a wholly-owned subsidiary of Hana Financial Group in 2015.

Hana TI

Hana Financial TI Co., Ltd. (renamed in 2017 from Hana Information & System Co., Ltd.; “**Hana TI**”) was established in August 1990 as a subsidiary of Original Hana Bank. Hana TI develops and maintains the IT systems of the member companies of Hana Financial Group as well as other third party clients. In connection with the establishment of Hana Financial Group, Original Hana Bank transferred all of the outstanding common shares of Hana TI to Hana Financial Group on 1 December 2005, for 178,442 common shares of Hana Financial Group. In November 2019, Hana Financial Group acquired the remaining 10.02% stake in Hana TI from DPR International Investments LLC, and Hana TI became a wholly-owned subsidiary of Hana Financial Group.

Finnq

Finnq Inc. (“**Finnq**”) was incorporated on 24 August 2016 as a joint venture with SK Telecom, a mobile service provider in Korea. Finnq provides fintech-based services such as mobile-oriented asset management, simplified payment and facilitation of overseas transactions through a mobile application launched in 2017. In 2022, Hana Financial Group acquired SK Telecom’s interest in the company and held a 100% stake as of 30 September 2024.

Principal Shareholders of Hana Financial Group

The following table sets out certain information regarding the ownership of Hana Financial Group’s common shares. Each entity known to the Bank to beneficially own more than 5.0% of the outstanding common shares of Hana Financial Group as of 30 September 2024 is listed below.

<u>Beneficial Owner</u>	<u>Number of Common Shares Owned</u>	<u>% of Ownership</u>
Korea National Pension Fund	25,428,263	8.85%
BlackRock Fund Advisors	18,317,138	6.38%
Capital Group	15,916,182	5.54%

SUMMARY OF THE PRINCIPAL DOCUMENTS

Trust Deed

The Trust Deed, made between the Issuer and the Trustee on the Programme Date, is the principal agreement governing the Covered Bonds. The Trust Deed contains provisions relating to, among others:

- the constitution of the Covered Bonds and the Terms and Conditions of the Covered Bonds;
- the covenants of the Issuer;
- the enforcement procedures relating to the Covered Bonds;
- the appointment, powers and responsibilities of the Trustee and the circumstances in which the Trustee may resign or retire or be removed; and
- matters related to the holding of meetings of the Covered Bondholders.

The Trust Deed will be governed by English law.

Establishment Deed

Establishment and Segregation of the Cover Pool

Under the terms of the Establishment Deed, made between the Issuer, the Asset Monitor and the Trustee on the Initial Filing Date, the Issuer will establish the Cover Pool by filing the Covered Bond Issuance Plan with the FSC in accordance with the Korean Covered Bond Laws on the Initial Filing Date which will constitute the registration of the initial assets specified in the Covered Bond Issuance Plan as part of the Cover Pool. The Issuer will provide the Asset Monitor and the Trustee with evidence satisfactory to the Asset Monitor of such filing on or prior to the Programme Date.

Subject to compliance with the Korean Covered Bond Laws, the Issuer will ensure that each asset in the Cover Pool is segregated at all times from any other assets of the Issuer that do not form part of the Cover Pool (including assets in any cover pool in respect of covered bonds registered under any issuance plans other than the Covered Bond Issuance Plan) from the Relevant Filing Date until the earlier of (i) the deregistration of such asset from the FSC register of the Cover Pool or (ii) the termination of the Programme by:

- (a) preparing and maintaining a separate ledger (the “**Cover Pool Ledger**”) on its computer information system to identify each Mortgage Loan, other Underlying Assets, any Liquid Assets, any Other Assets and any Swap and related rights under such Swap(s) that are registered with the FSC as comprising the Cover Pool from time to time;
- (b) registering the details of any Swap in connection with the Cover Pool with the FSC;
- (c) opening and maintaining segregated accounts with each of the Account Banks, the Securities Depository or Euroclear (as applicable) as described in the section entitled “— *Cover Pool Accounts*” below, registering such accounts as part of the Cover Pool with the FSC, and ensuring that amounts related to the Cover Pool are paid into such accounts as described in the section entitled “— *Cover Pool Accounts*” below; and
- (d) ensuring that no cash or other assets may be removed from the Cover Pool except:
 - (i) any withdrawal or substitution of Liquid Assets (including in the form of cash), Underlying Assets or any Other Assets with the prior written consent of the Asset Monitor (save where the Asset Monitor has given its upfront consent as described below), and provided that such assets are deregistered with the FSC as comprising part of the Cover Pool by, where applicable, the filing of an amendment to the Covered Bond Issuance Plan with the FSC on or prior to such withdrawal or substitution;
 - (ii) for application in accordance with the section entitled “— *Payments and Cash Release*” and the Cover Pool Priority of Payments summarised in the section entitled “— *Cover Pool Priority of Payments*” below;
 - (iii) for disposal by the Asset Monitor following any Cause of Disposal Event (as defined in “— *Registration and Amendment of the Covered Bond Issuance Plan*”) in accordance with the Asset Monitor Agreement; or
 - (iv) any removal of a Swap from the Cover Pool with the prior written consent of the Asset Monitor.

The Asset Monitor has given its consent to the withdrawal of any Underlying Assets, Liquid Assets or Other Assets from the Cover Pool pursuant to paragraph (d)(i) above from time to time for so long as at the time of withdrawal:

- (a) no Issuer EOD Notice has been served; and
- (b) the Issuer has confirmed to the Asset Monitor in writing that:
 - (i) the Asset Coverage Test was satisfied on the immediately preceding Calculation Date and would have been satisfied on such immediately preceding Calculation Date after taking into account the removal of the assets that are proposed to be removed from the Cover Pool, provided that the Asset Coverage Test will be deemed to have been satisfied from and including the Programme Date to and excluding the Calculation Date immediately following the first Issue Date under the Programme and this paragraph (b)(i) will not apply where no Covered Bonds are issued and remain outstanding at the time of withdrawal;
 - (ii) the Required Collateralisation Ratio is satisfied and would continue to be satisfied immediately after the withdrawal of such assets from the Cover Pool; and
 - (iii) the Pre-Maturity Test Cure Requirement (if applicable) is satisfied.

The Issuer may not register New Mortgage Loans with the FSC as part of the Cover Pool unless it has delivered to each of the parties to the Establishment Deed and the Rating Agencies a solvency certificate substantially in the form set out in the Establishment Deed dated the proposed Additional Filing Date of the relevant New Mortgage Loans and signed by an authorised signatory of the Issuer.

Registration and Amendment of the Covered Bond Issuance Plan

The Issuer has agreed to deliver to the Asset Monitor and the Trustee evidence (with copies provided to each Rating Agency in a timely manner) satisfactory to the Asset Monitor and the Trustee of:

- (a) in the case of the initial Series of Covered Bonds, the registration with the FSC of the Covered Bond Issuance Plan, such evidence to be delivered on or prior to the relevant Issue Date; and
- (b) in respect of any further Series or Tranche of Covered Bonds, the amendment or supplement to the Covered Bond Issuance Plan in connection with such further Series or Tranche at the time and in the manner required by the FSC (which, as of the date of the Establishment Deed, may be done by way of an annual update of the Covered Bond Issuance Plan in respect of all the Series and/or Tranches of Covered Bonds to be issued in the forthcoming year), such evidence to be delivered within five Korean Business Days of the filing of such amendment or supplement with the FSC.

Following registration of the Initial Cover Pool, the Issuer will effect:

- (a) without prejudice to paragraph (d) of the section entitled “— *Establishment and Segregation of the Cover Pool*” above) any proposed addition, substitution or withdrawal of any Underlying Assets, Liquid Assets or Other Assets from the Cover Pool;
- (b) the proposed addition or removal of any bank account or securities account to or from the Cover Pool (including as the result of any replacement of the relevant Account Bank in accordance with each relevant Account Bank Agreement); or
- (c) the proposed addition or removal of any Swap to or from the Cover Pool,

by filing any required amendment to the Covered Bond Issuance Plan for the registration or deregistration of the relevant asset, account or Swap in relation to the Programme simultaneously with or prior to such proposed addition, substitution, withdrawal or removal and the Issuer will simultaneously provide written notice to the Asset Monitor of any registration or deregistration of the relevant asset, account or Swap in relation to the Programme.

The Issuer will ensure that each of the following events is specified in the Covered Bond Issuance Plan as a cause of disposal of the Cover Pool under Article 6(1) of the Korean Covered Bond Act (each, a “**Cause of Disposal Event**”):

- (a) the service of an Issuer EOD Notice; and
- (b) the service of an Acceleration Notice.

Issuer Covenants

The Issuer has undertaken to the Trustee that, for so long as any Covered Bonds are issued and remain outstanding, it will ensure that at all times:

- (a) the Required Collateralisation Ratio is satisfied;
- (b) the Maximum Liquid Assets Requirement is satisfied;
- (c) the Issuer and the Cover Pool maintained by the Issuer will each comply with the requirements of the Korean Covered Bond Laws in all material respects;
- (d) the Issuer will comply with all applicable laws, rules, regulations and orders, provided that there will be no breach of this covenant unless failure to so comply would result in a Material Adverse Effect;
- (e) the Underlying Assets in the Cover Pool will only comprise Mortgage Loans and assets falling within paragraph (b) of the definition of Pre-Maturity Liquidity Assets (if any); and
- (f) the Issuer's other obligations set out in the Establishment Deed, the Asset Monitor Agreement and the Account Bank Agreements are complied with, provided that there will be no breach of this covenant unless failure to so comply would result in a Material Adverse Effect.

The Trustee will hold the benefit of the covenants in the immediately preceding paragraph (the “**Issuer Covenants**”) on trust for itself and the Covered Bondholders and Couponholders of each Series of Covered Bonds.

Mortgage Loan Warranties

The Issuer has made and will make the Mortgage Loan Warranties in relation to each Mortgage Loan in the Initial Cover Pool (i) as at the Initial Filing Date; and (ii) on each subsequent Calculation Date on which each such Mortgage Loan remains part of the Cover Pool, in each case in favour of the Trustee.

The Issuer will make the Mortgage Loan Warranties in relation to each New Mortgage Loan (i) on the Relevant Filing Date in respect of such New Mortgage Loan; and (ii) on each subsequent Calculation Date on which each such Mortgage Loan remains part of the Cover Pool, in each case in favour of the Trustee.

The Mortgage Loan Warranties, in relation to each Mortgage Loan, are as follows:

- (a) each of the Eligibility Criteria is true;
- (b) at the time that the Issuer entered into the Mortgage relating to the Mortgage Loan, each Mortgage, each Mortgage Loan Agreement and Collateral Security complied in all material respects with Korean Privacy Laws and, as at the date of the Establishment Deed (or, in relation to each New Mortgage Loan, as at the date such New Mortgage Loan is registered with the FSC as part of the Cover Pool) the Issuer is not aware of any failure by it to comply with Korean Privacy Laws in relation to the Mortgage Loan;
- (c) the Mortgage Loan has been originated and serviced by the Issuer in accordance with all policies, practises, procedures and other requirements applicable to its mortgage loan business as of the date of origination and thereafter;
- (d) the Issuer has full, sole and perfected title to and ownership of each Mortgage Loan and the related Mortgages and Collateral Security;
- (e) the Issuer holds all documents relating to the Mortgage Loan, each Mortgage and Collateral Security which are necessary for the proper and efficient servicing and to enforce the provisions of, and the security created by, the Mortgage Loan;
- (f) all documents relating to the Mortgage Loan, each Mortgage and Collateral Security is in full force and effect and constitutes legal, valid and binding obligations of the relevant Borrowers, enforceable against such Borrowers in accordance with the terms of such documents, except as such enforcement may be limited by applicable bankruptcy, insolvency, moratorium, reorganisation or other similar laws affecting the enforcement of the rights of creditors generally;
- (g) there are no governmental or regulatory approvals, permits, authorisations, filings, registrations, recordings or other formalities which are necessary to ensure the validity, effectiveness, enforceability or admissibility in evidence of any documentation relating to any Mortgage Loan other than those which have already been obtained or made and are currently valid and in full force and effect;

- (h) the Issuer is lawfully entitled to sell and assign the Mortgage Loans and no consent to the sale and assignment of the Mortgage Loan is required to be given by the Borrower;
- (i) so far as the Issuer is aware, no default, breach or failure by any Borrower or Collateral Security Provider of its obligations under any Mortgage Loan or any of the documentation relating thereto has occurred which has not been remedied;
- (j) none of the Mortgage Loans (or any part thereof) is terminable at the option of any related Borrower (whether as a result of the occurrence of an event of default (howsoever described) or otherwise) other than upon prepayment in full by or on behalf of the relevant Borrower of all amounts, present or future, actual or contingent, payable in respect of such Mortgage Loan; and
- (k) all the payments under the Mortgage Loans are made by automatic bank transfers.

Eligibility Criteria

Any Mortgage Loan in the Cover Pool will have to comply with the Eligibility Criteria as set out in the Establishment Deed.

The “Eligibility Criteria” for each Mortgage Loan in the Cover Pool is as follows:

- (a) the Mortgage Loan is secured by a valid, enforceable and first-ranking registered mortgage over the related Mortgaged Property;
- (b) the related Mortgaged Property is a private residential property as set forth in Article 2 Item 1 of the Housing Act located in Korea;
- (c) the amounts payable by each Borrower in respect of the Mortgage Loan are denominated in Korean Won only;
- (d) no payment in respect of the Mortgage Loan has been rescheduled, amended, re-aged or changed to avoid or eliminate a delinquency or default or following a delinquency or default;
- (e) there are no proceedings, actions or investigations pending or, to the knowledge of the Issuer, having made all due enquiries, threatened against the related Borrower before any court, regulatory body, administrative or governmental agency, or other tribunal;
- (f) each Borrower is a natural person who is a Korean citizen or permanent resident, residing in Korea, and aged at least 20 years old at the time of origination;
- (g) no Borrower is entitled to draw any further advance under the Mortgage Loan;
- (h) the Borrower in respect of the Mortgage Loan is not an employee of the Issuer;
- (i) the Mortgage Loan is compliant with the requirements applicable to the composition of the cover pool pursuant to the Korean Covered Bond Act;
- (j) the Mortgage Loan has a loan-to-value ratio (“**LTV**”) of 70% or lower; and
- (k) the inclusion of the Mortgage Loan in the Cover Pool must not cause a breach of the Portfolio Criteria,

provided that, in case of any amendment to the Korean Covered Bond Laws that requires revision to the Eligibility Criteria, the Eligibility Criteria will be deemed to be revised automatically to reflect such amendment.

The “Portfolio Criteria” referred to in the Eligibility Criteria is as follows:

- (a) at least 20% of the Mortgage Loans in the Cover Pool must have a debt-to-income ratio (“**DTI Ratio**”) of 70% or less, where the DTI Ratio is calculated in accordance with Table 18 of the Detailed Enforcement Rules on Supervision of Banking Business of Korea, inter alia, which, as of the date of the Establishment Deed, provides for the debt-to-income ratio to be calculated by dividing the sum of annual repayment of principal and payment of interest obligations and interest payment obligations with respect to other debt obligations by the annual income of the debtor and for the calculation of annual repayment of principal and payment of interest obligations for residential mortgage loans that are of the bullet repayment type to be calculated by adding the annual interest payment amount to the total debt obligations divided by the term of such debt obligations;
- (b) at least 30% of the aggregate nominal amount of Mortgage Loans in the Cover Pool must be in relation to Fixed Rate Loans, where “Fixed Rate Loan” means any of the following loans which are considered as fixed

rate loans in the relevant FSC rulings for the purpose of the Korean Covered Bond Laws, subject to any change in the interpretation of the FSC of the meaning of fixed rate loans for such purpose as may be published by the FSC from time to time:

- (i) any fixed rate loan originated on or after 1 January 2014 with a maturity of three years or longer but less than five years, provided that the principal amount outstanding of such loan multiplied by the multiplier that is equal to the number of years from the drawdown date of such loan until maturity divided by 30 shall be treated as the nominal amount of such fixed rate loan;
- (ii) any fixed rate loan originated on or after 1 January 2014 with a maturity of five years or more, in respect of which the principal amount outstanding of such loan shall be treated as the nominal amount of such fixed rate loan;
- (iii) any fixed rate loan originated on or before 31 December 2013 with a maturity of three years or longer but less than ten years, provided that the principal amount outstanding of such loan multiplied by the multiplier that is equal to the number of years from the drawdown date of such loan until maturity divided by 10 shall be treated as the nominal amount of such fixed rate loan;
- (iv) any fixed rate loan originated on or before 31 December 2013 with a maturity of ten years or more, in respect of which the principal amount outstanding of such loan shall be treated as the nominal amount of such fixed rate loan;
- (v) any floating rate loan originated on or after 1 January 2014 of which the interest rate resets every five years or more, in respect of which the principal amount outstanding of such loan shall be treated as the nominal amount of such floating rate loan;
- (vi) any floating rate loan originated on or before 31 December 2013 of which the interest rate resets every ten years or more, in respect of which the principal amount outstanding of such loan shall be treated as the nominal amount of such floating rate loan;
- (vii) any floating rate loan originated on or before 31 December 2013 of which the interest rate resets every five years or more (but less than ten years), provided that if the aggregate loan amount of such floating rate loans exceeds ten% of the aggregate fixed rate loan amount, the excess shall not be counted;
- (viii) in case of any mixed loan originated on or after 1 January 2014:
 - (I) which consists of (i) certain amounts with fixed rate (in this sub-paragraph, the “**Fixed Rate Amount**”) and (ii) certain amounts with floating rate (in this sub-paragraph, the “**Floating Rate Amount**”), where (x) the Fixed Rate Amount which satisfies the requirements in paragraphs (b)(i) (subject to adjustment to the nominal amount of the loan specified thereunder) or (b)(ii) above, and (y) the Floating Rate Amount which satisfies the requirement in paragraph (b)(v) above; or
 - (II) which consists of (i) certain periods during which fixed rate applies (in this sub-paragraph, the “**Fixed Rate Period**”) and (ii) certain periods during which floating rate applies (in this sub-paragraph, the “**Floating Rate Period**”), where (x) during the Fixed Rate Period, the loan amount which satisfies the requirements in paragraphs (b)(i) (subject to adjustment to the nominal amount of the loan specified thereunder) or (b)(ii) above, and (y) during the Floating Rate Period, the loan amount which satisfies the requirement in paragraph (b)(v) above; and
- (ix) in case of any mixed loan originated on or before 31 December 2013:
 - (I) which consists of (i) certain amounts with fixed rate (in this sub-paragraph, the “**Fixed Rate Amount**”) and (ii) certain amounts with floating rate (in this sub-paragraph, the “**Floating Rate Amount**”), where (x) the Fixed Rate Amount which satisfies the requirement in paragraphs (b)(iii) (subject to adjustment to nominal amount of the loan specified thereunder) or (b)(iv) above, and (y) the Floating Rate Amount which satisfies the requirement in paragraphs (b)(vi) or (b)(vii) above; or
 - (II) which consists of (i) certain periods during which fixed rate applies (in this sub-paragraph, the “**Fixed Rate Period**”) and (ii) certain periods during which floating rate applies (in this sub-paragraph, the “**Floating Rate Period**”), where (x) during the Fixed Rate Period, the loan amount which satisfies the requirements in paragraphs (b)(iii) (subject to adjustment to the nominal amount of the loan specified thereunder) or (b)(iv) above, and (y) during the Floating Rate Period, the loan amount which satisfies the requirement in paragraphs (b)(vi) or (b)(vii) above; and

- (x) any floating rate loan originated on or after 1 January 2014 with an interest rate cap period, during which (i) the maximum interest rate increase is limited to 1% or less or (ii) any of the following conditions are satisfied:
 - (I) in the case where the interest rate cap applies for three years or longer but less than five years, the maximum interest rate increase of the loan is limited to 1.5% or less and the annual permitted interest rate increase of the loan is limited to 1% or less; or
 - (II) in the case where the interest rate cap applies for five years or longer, the maximum interest rate increase of the loan is limited to 2% or less and the annual permitted interest rate increase of the loan is limited to 1% or less,
 in each case subject to paragraphs (b)(i) (subject to adjustment to the nominal amount of the loan specified thereunder) and (b)(ii) above; and
- (xi) in case of any floating rate loan originated on or before 31 December 2013 with an interest rate cap for a certain period which equals the interest rate applied when the loan is advanced, the loan amount which satisfies the requirements in paragraphs (b)(iii) (subject to adjustment to the nominal amount of the loan specified thereunder) and/or (b)(iv) above, in each case 'maturity' under paragraphs (b)(iii) and/or (b)(iv) above shall mean the period during which interest rate cap is applicable; and
- (c) not more than 10% of the Mortgage Loans in the Cover Pool are Mortgage Loans in respect of which 50% or more of their outstanding principal balance may be set off against the Issuer,

provided that, in case of any amendment to the Korean Covered Bond Laws that requires revision to the Portfolio Criteria, the Portfolio Criteria will be deemed to be revised automatically to reflect such amendment.

Asset Coverage Test

Under the terms of the Establishment Deed, for so long as any Covered Bonds are issued and remain outstanding, the Issuer will procure that as of each Calculation Date prior to the earlier to occur of (i) the service of an Issuer EOD Notice and (ii) the Calculation Date from which the Amortisation Test is required to be satisfied, the Adjusted Aggregate Loan Amount (as defined below) will be in an amount at least equal to the KRW Equivalent of the aggregate outstanding principal amount of all the Covered Bonds on that Calculation Date (the "**Asset Coverage Test**").

On or prior to each Test Date, the Issuer will calculate the Adjusted Aggregate Loan Amount and the KRW Equivalent of the aggregate outstanding principal amount of all Covered Bonds as of the immediately preceding Calculation Date.

"Adjusted Aggregate Loan Amount" means, in respect of a Calculation Date:

$$A+B+C-X-Y$$

Where:

"A" means the lower of:

- (a) the aggregate of the LTV Adjusted Loan Amount of each Mortgage Loan in the Cover Pool; and
- (b) the aggregate of the Asset Percentage Adjusted Loan Amount of each Mortgage Loan in the Cover Pool,

minus the aggregate sum of the Deemed Reductions in respect of each Mortgage Loan in the Cover Pool.

"LTV Adjusted Loan Amount" means, in respect of a Mortgage Loan, the lower of:

- (a) the outstanding current principal balance of such Mortgage Loan; and
- (b) the Indexed Valuation relating to such Mortgage Loan multiplied by the LTV Limit,

each as multiplied by N.

"LTV Limit" means 70%, or such other percentage as may be specified under the Korean Covered Bond Laws as the applicable LTV limit on such Calculation Date.

“Asset Percentage Adjusted Loan Amount” means, in respect of a Mortgage Loan, the product of the Asset Percentage and the outstanding current principal balance of such Mortgage Loan.

“N” means:

- (a) 1 for any Mortgage Loan that is not in arrears or in arrears for 90 days or less; and
- (b) 0 for any Mortgage Loan that is more than 90 days in arrears.

“Deemed Reductions” means (i) in respect of each Mortgage Loan that was, in the immediately preceding Calculation Period, determined to be an Ineligible Mortgage Loan, an amount equal to the lower of the LTV Adjusted Loan Amount and the Asset Percentage Adjusted Loan Amount of such Mortgage Loan (calculated on such Calculation Date) or (ii) otherwise, zero.

“B” means the aggregate amount of cash standing to the credit of the Transaction Account on such Calculation Date.

“C” means (without double counting) the sum of (i) the Liquid Assets Value (other than such portion that relates to Pre-Maturity Liquidity Assets) on such Calculation Date; and (ii) the Pre-Maturity Liquidity Assets Value as of such Calculation Date.

“X” means zero, unless the Issuer is the Transaction Account Bank and the Covered Bonds are rated by Fitch, in which case “X” will mean, where the Issuer maintains a short-term or, as the case may be, long-term issuer default rating by Fitch of:

- (a) at least “F 1” or “A,” zero;
- (b) at least “A-” (provided that paragraph (a) above does not apply), 50% of the Commingling Exposure Amount;
- (c) “BBB+,” 75% of the Commingling Exposure Amount;
- (d) “BBB” or below, 100% of the Commingling Exposure Amount; or
- (e) any other minimum ratings or percentage of the Commingling Exposure Amount as required as per the then most recent public criteria of Fitch which are required to maintain the then current ratings of the Covered Bonds.

“Commingling Exposure Amount” means, in respect of a Calculation Date, an amount equal to:

- (a) the aggregate of all collections in respect of Mortgage Loans forming part of the Cover Pool received in the Transaction Account during the Calculation Period ending on such Calculation Date; multiplied by
- (b) the KRW Equivalent of the aggregate outstanding principal amount of all Covered Bonds as at such Calculation Date, divided by the Asset Percentage figure applicable in respect of Fitch (as determined in accordance with sub-paragraph (b) of the definition of “Asset Percentage” below) as at such Calculation Date; divided by
- (c) the aggregate outstanding current principal balance of all Mortgage Loans forming part of the Cover Pool as of such Calculation Date.

“Y” means (i) zero or (ii) if a Set-Off Rating Event is continuing, the Set-Off Amount.

“Set-Off Amount” means, as of such Calculation Date, the sum for all Borrowers of the lowest of:

- (a) for each Borrower, the lower of the LTV Adjusted Loan Amount and the Asset Percentage Adjusted Loan Amount of such Mortgage Loan (calculated on such Calculation Date);
- (b) the total of all deposits maintained by such Borrower with the Issuer as of such Calculation Date; and
- (c) for each Borrower, out of the total of all deposits maintained by such Borrower with the Issuer as of the date of the receipt of the Perfection Notice by such underlying Borrower, the amount of such deposit remaining as of such Calculation Date.

“Set-Off Rating Event” means:

- (a) the short-term issuer default rating of the Issuer ceases to be rated equal to or above “F1” by Fitch and the long-term issuer default rating of the Issuer ceases to be rated equal to or above “A” by Fitch (or any other minimum ratings required as per the then most recent public criteria of Fitch which are required to maintain the then current ratings of the Covered Bonds); or

(b) either:

- (i) if the amount (expressed as a percentage) equal to (x) the total of all deposits maintained by each Borrower with the Issuer as of such Calculation Date; divided by (y) the aggregate outstanding principal balance of all Mortgage Loans forming part of the Cover Pool as of the Calculation Date, is greater than 5%, the long-term senior unsecured foreign currency rating of the Issuer ceases to be rated equal to or above “A” by S&P (or any other minimum ratings required as per the then most recent public criteria of S&P which are required to maintain the then current ratings of the Covered Bonds); or
- (ii) otherwise, the long-term senior unsecured foreign currency rating of the Issuer ceases to be rated equal to or above “BBB” by S&P (or any other minimum ratings required as per the then most recent public criteria of S&P which are required to maintain the then current ratings of the Covered Bonds).

“Asset Percentage” means the lowest of:

- (a) 95%; and
- (b) such percentage figure determined by the Issuer on the relevant Calculation Date, being the percentage figure that is necessary to ensure that the Covered Bonds maintain the then current ratings assigned to them by Fitch and S&P, provided that there is no obligation on the Issuer to maintain a rating by Fitch and/or S&P and the Issuer is under no obligation to change the percentage figure determined by it and notified in writing to Fitch or S&P, as applicable, in line with the level of credit enhancement required to ensure a rating is maintained by Fitch and/or S&P.

“Indexed Valuation” means, in respect of a Mortgaged Property relating to a Mortgage Loan, for the purpose of determining compliance with the Asset Coverage Test on each Calculation Date, the indexed valuation relating to that Mortgaged Property then in force as determined by the Issuer on the Calculation Date immediately preceding the relevant Calculation Date (or, if the relevant Calculation Date is the first Calculation Date, on the Programme Date), by reference to:

- (a) if KB Market Prices are available, KB Market Prices; or
- (b) if KB Market Prices are not available, either one of the following:
 - (i) if the “Prime Cost Method” was used for the valuation of the Mortgaged Property as at the origination of the related Mortgage Loan, valuation according to the “Prime Cost Method,” being the value derived by taking the construction cost announced by the Korea Appraisal Board, discounted for depreciation; or
 - (ii) if the valuation calculated pursuant to Hana Bank’s internal valuation policy and within the scope of applicable regulatory guidelines was used for the valuation of the Mortgaged Property as at the origination date of the related Mortgage Loan (such valuation being the “Valuation”), an amount determined in accordance with the below:

Valuation x (KB Index 1 / KB Index 0) where,

“KB Index 1” means KB Index on the Calculation Date immediately preceding the relevant Calculation Date (or, if the relevant Calculation Date is the first Calculation Date, on the Programme Date); and

“KB Index 0” means KB Index on the origination date of the relevant Mortgage Loan.

“KB Index” means KB Housing Purchase Price Index as published by Kookmin Bank.

“KB Market Prices” means the market prices of properties in Korea as published by Kookmin Bank.

For the purposes of the definitions of “Asset Percentage” above, the delivery of an Investor Report containing the relevant percentage figure information to a Rating Agency or the Asset Monitor, as the case may be, will be deemed to satisfy the requirement for notice in writing to be given to such person of such percentage figure information.

If, on any Test Date, the Adjusted Aggregate Loan Amount is less than the KRW Equivalent of the aggregate outstanding principal amount of all Covered Bonds as calculated as of the Calculation Date immediately preceding that Test Date, the Asset Coverage Test will be breached and the Issuer will immediately notify the Rating Agencies, the Asset Monitor and the Trustee in writing thereof, whereupon the Asset Monitor will serve an Asset Coverage Test Breach Notice on the Issuer as soon as reasonably practicable. Subject to the paragraphs

below, non-compliance with the Asset Coverage Test does not constitute an Issuer Event of Default or a Covered Bond Event of Default, but the Issuer will not issue any further Covered Bonds under the Programme and no Daily Cash Release will be permitted in accordance with the section entitled “— *Payments and Cash Release — Daily Cash Release*” below until such breach has been remedied.

The Asset Monitor will be deemed to have revoked an Asset Coverage Test Breach Notice if, on any Test Date following service of an Asset Coverage Test Breach Notice, the Asset Coverage Test (as of the immediately preceding Calculation Date) is satisfied (as notified to the Asset Monitor in writing by the Issuer, and copied to the Rating Agencies and the Trustee) and neither an Issuer EOD Notice nor an Acceleration Notice has been served.

If an Asset Coverage Test Breach Notice has been served and remains outstanding and has not been revoked or deemed to have been revoked on or before the second Calculation Date after service of such Asset Coverage Test Breach Notice on the Issuer, an Issuer Event of Default will occur pursuant to Condition 10(a)(xi).

If the Asset Monitor determines that there have been errors in the relevant calculations of the Asset Coverage Test performed by the Issuer such that the Asset Coverage Test was not satisfied on the previous Calculation Date (where the Issuer had recorded it as being satisfied on that date), then the Asset Monitor will (i) notify the Rating Agencies of such errors; and (ii) determine if the Asset Coverage Test was, in addition, not satisfied on the two Calculation Dates prior to the most recent Calculation Date (where the Issuer had recorded it as being satisfied on those dates). Where there have not been two Calculation Dates prior to the most recent Calculation Date, the Asset Monitor will carry out (ii) above only in relation to any Calculation Date prior to the most recent Calculation Date. If the Asset Monitor determines that the Asset Coverage Test was not satisfied on the previous three Calculation Dates (if applicable, and only where the Issuer had recorded it as being satisfied on those dates), then the Asset Monitor will immediately serve an Asset Coverage Test Breach Notice on the Issuer (copied to the Trustee and the Rating Agencies). An Issuer Event of Default will occur pursuant to Condition 10(a)(xi) if such breach of the Asset Coverage Test is not cured within 60 days of receipt of that Asset Coverage Test Breach Notice.

The Trustee will not be obliged to monitor or be responsible for monitoring the Cover Pool, including, without limitation, whether or not the Cover Pool is in compliance with the Asset Coverage Test or the Amortisation Test.

Unless and until the Trustee has actual written notice to the contrary, it will be entitled to assume that the Cover Pool is in compliance with the Asset Coverage Test and the Amortisation Test and that no breach thereof has occurred, and will not be liable to any person for any loss or liability occasioned thereby.

Pre-Maturity Liquidity

The following applies if Hard Bullet Covered Bonds, specified as such in the Pricing Supplement, have been issued and remain outstanding.

On each Korean Business Day (each a “**Pre-Maturity Test Date**”) during the period starting from, but excluding, 12 months prior to the Maturity Date of a Series of Hard Bullet Covered Bonds and ending on, and including, such Maturity Date (the relevant “**Pre-Maturity Test Period**”), the Issuer will determine whether it is in compliance with the Pre-Maturity Test in respect of the relevant Series of Hard Bullet Covered Bonds. If it is not, the Issuer will immediately notify the Rating Agencies, the Asset Monitor and the Trustee in writing thereof.

The Issuer will fail and be in breach of the “Pre-Maturity Test” in relation to a Series of Hard Bullet Covered Bonds on a Pre-Maturity Test Date if the Issuer ceases to have the applicable Minimum Required Ratings from one or both Rating Agencies.

Following a failure of the Pre-Maturity Test in respect of any Series of Hard Bullet Covered Bonds but prior to the occurrence of an Issuer Event of Default (and only for so long as the Issuer is in breach of the Pre-Maturity Test), the Issuer will as soon as practicable (i) add Pre-Maturity Liquidity Assets to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account (as applicable), with the intention that the aggregate Pre-Maturity Liquidity Assets Value on each relevant Pre-Maturity Test Date will at least be equal to the Required Redemption Amount for all Series of Hard Bullet Covered Bonds which are scheduled to mature within 12 months of such Pre-Maturity Test Date (the “**Pre-Maturity Test Cure Requirement**”); and (ii) if the Pre-Maturity Liquidity Assets are required to be added, appoint the relevant Reserve Account Bank (if

not already appointed) to open and maintain the Reserve Cash Account and, if not already opened, open and maintain the Reserve Securities Account with the Securities Depository or Euroclear in accordance with the section entitled “— *Cover Pool Accounts*” below, in each case to enable the Issuer to be able to add any relevant Pre-Maturity Liquidity Assets before the required time as set out below. Any Pre-Maturity Liquidity Assets added to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account in accordance with this paragraph may be liquidated and applied by the Issuer or the Asset Monitor towards redemption of the relevant Series of Hard Bullet Covered Bonds on their Maturity Date.

The Issuer’s obligations as described in the preceding paragraph to add Pre-Maturity Liquidity Assets to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account will be subject always to the Maximum Liquid Assets Requirement. For the avoidance of doubt, if the Issuer is at any time restricted from adding further Liquid Assets to the Cover Pool due to the Maximum Liquid Assets Requirement, the Issuer will comply with its obligations as described in the preceding paragraph by adding other Pre-Maturity Liquid Assets to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account.

Upon the Issuer satisfying the Pre-Maturity Test Cure Requirement, the Issuer will be entitled to withdraw (subject to paragraph (d) of the section entitled “— *Establishment and Segregation of the Cover Pool*”) any Pre-Maturity Liquidity Assets from the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account, provided that such withdrawal will not cause the Issuer to breach any of its other covenants under the Establishment Deed or any provision of the Korean Covered Bond Laws.

If the Pre-Maturity Test in respect of any Series of Hard Bullet Covered Bonds is breached during the Pre-Maturity Test Period of such Series of Hard Bullet Covered Bonds and the Issuer does not add Pre-Maturity Liquidity Assets to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account with a Pre-Maturity Liquidity Assets Value at least equal to the Series Required Redemption Amount on or before the earlier of (i) 20 Korean Business Days following such failure of the Pre-Maturity Test and (ii) the Maturity Date of such Series of Hard Bullet Covered Bonds (such earlier date, the “**Series Required Redemption Amount Cut-off Date**”), an Issuer Event of Default under Condition 10(a)(x) will occur, provided that there will be no Issuer Event of Default if the Pre-Maturity Test Cure Requirement is satisfied in respect of all Series of Hard Bullet Covered Bonds which are scheduled to mature within 12 months of such Pre-Maturity Test Date on or prior to the Series Required Redemption Amount Cut-off Date.

In relation to each Series of Hard Bullet Covered Bonds in respect of which either (i) the Issuer has taken the action required as described in the immediately preceding paragraph or (ii) the proviso in the immediately preceding paragraph applies (so that no Issuer Event of Default has occurred as described in the preceding paragraph in respect of each such Series) (each, a “**PMT Ongoing Test Series**”), the Issuer will on each PMT Shortfall Valuation Date determine the PMT Shortfall Amount in respect of such PMT Shortfall Valuation Date and will add Pre-Maturity Liquidity Assets to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account with a Pre-Maturity Liquidity Assets Value at least equal to the PMT Shortfall Amount on or before the immediately succeeding PMT Shortfall Valuation Date, and if it fails to do so, an Issuer Event of Default under Condition 10(a)(x) will occur, provided that there will be no Issuer Event of Default if the Pre-Maturity Test Cure Requirement is satisfied on any Pre-Maturity Test Date during the period from the date of determination of such PMT Shortfall Amount to (and including) such immediately succeeding PMT Shortfall Valuation Date.

The failure by the Issuer to pay the full amount due in respect of a Series of Hard Bullet Covered Bonds on the Maturity Date thereof (subject to applicable cure periods) will constitute, first, an Issuer Event of Default and subsequently (after the applicable further cure period, if not remedied) a Covered Bond Event of Default and the Issuer will immediately notify the Trustee, the Account Banks, the Asset Monitor and the Rating Agencies in writing of such Issuer Event of Default and Covered Bond Event of Default.

Reserve Fund

If, on any day after the Programme Date, the Issuer ceases to have the applicable Minimum Required Ratings of one or both Rating Agencies, the Issuer will immediately notify the Trustee and the Asset Monitor in writing thereof and the Issuer will, within 14 calendar days of such day, (i) appoint the relevant Reserve Account Bank (if not already appointed) to open and maintain the Reserve Cash Account in accordance with the section entitled “— *Cover Pool Accounts*” below and register the Reserve Cash Account with the FSC in accordance with paragraph (c) of the section entitled “— *Establishment and Segregation of the Cover Pool*” above; and (ii) fund the Reserve Ledger of the Reserve Cash Account with an amount equal to the Reserve Fund Required Amount.

To the extent that the Issuer's credit ratings are restored to at least the applicable Minimum Required Ratings of both Rating Agencies, the Issuer will immediately notify the Trustee and the Asset Monitor in writing thereof and, subject to certain conditions described in the section entitled "*— Establishment and Segregation of the Cover Pool*" above, will thereafter be entitled to withdraw the balance of the Reserve Ledger from the Reserve Cash Account provided that such withdrawal will not cause the Issuer to breach any of its covenants under the Establishment Deed or any provision of the Korean Covered Bond Laws.

Perfection Notices

The Issuer will, as soon as practicable and in any event within 15 Korean Business Days following the occurrence of a Cause of Disposal Event, provide Perfection Notices by content and delivery proof mail (*Naeyong Juengmyung Baedal Juengmyung* in Korean) to the Borrowers and to SGIC, in accordance with the Korean Covered Bond Laws and the Korean Civil Code, signed by the Issuer. If such mail fails to reach the Borrower and to SGIC no less than twice, the Issuer shall publish the registration of Mortgage Loans as part of the Cover Pool pursuant to the Korean Covered Bond Laws and the Asset Monitor's right to dispose of the Cover Pool following the occurrence of any Cause of Disposal Event, in at least two daily papers and the Issuer's website pursuant to the Korean Covered Bond Laws.

Such Perfection Notices will be sent to each Borrower and to SGIC with respect to each Mortgage Loan Asset which, as at the date of the occurrence of the relevant Cause of Disposal Event, has not been fully repaid by the relevant Borrower, and will relate to the registration of Mortgage Loans as part of the Cover Pool pursuant to the Korean Covered Bond Laws and the Asset Monitor's right to dispose of the Cover Pool following the occurrence of any Cause of Disposal Event, and will be sufficient to perfect the Asset Monitor's right to dispose of such Mortgage Loans.

The Issuer will provide the Asset Monitor satisfactory evidence of the serving of the Perfection Notices within five Korean Business Days of the Asset Monitor's request. If the Issuer fails to provide the Asset Monitor satisfactory evidence of the serving of the Perfection Notices within such time, then the Asset Monitor may execute and serve such Perfection Notices on the relevant Borrowers and on SGIC in the manner specified in the paragraphs above (including publication pursuant to the paragraphs above).

The Issuer has appointed the Asset Monitor to be its true and lawful attorney for the purposes of signing any Perfection Notices on behalf of the Issuer and has undertaken to execute on or about the Programme Date a power of attorney. The Issuer has undertaken to ratify whatever the Asset Monitor does or lawfully causes to be done under the authority or purported authority under such power of attorney. The Issuer may not revoke the power of attorney granted to the Asset Monitor unless the Issuer obtains the approval from the FSC or the consent from the holders of more than 75% in nominal amount of the Covered Bonds outstanding.

The Issuer shall indemnify the Asset Monitor and keep the Asset Monitor indemnified against any and all costs, claims and liabilities which the Asset Monitor may incur as a result of anything done by the Asset Monitor in the exercise of any of the powers conferred, or purported to be conferred, on it by such power of attorney; provided that nothing in such power of attorney will indemnify the Asset Monitor against any liability that would otherwise obtain to it in respect of any act of negligence, wilful default or fraud which it may have committed in relation to its powers under such power of attorney as determined by a final non-appealable judgement or order of court having jurisdiction. The power of attorney granted by the Issuer to the initial Asset Monitor will automatically terminate upon the termination of the appointment of the initial Asset Monitor.

Cover Pool Accounts

The Issuer will open the Transaction Account with the Transaction Account Bank in the name of the Issuer but indicating the Cover Pool in the account name, on or prior to the Initial Filing Date, subject to the terms of the relevant Account Bank Agreement. The Issuer may also open Swap Cash Collateral Accounts with the relevant Reserve Account Bank and Swap Securities Collateral Accounts with the Custodian Bank, each in the name of the Issuer but indicating the Cover Pool in the account name, and in each case subject to and in accordance with the terms of the relevant Account Bank Agreements.

The Issuer will, when required to do so pursuant to the sections entitled "*— Pre-Maturity Liquidity*" or "*— Reserve Fund*" above or where a payment is due to be made to such account pursuant to the section entitled "*— Cover Pool Priority of Payments — Pre-Issuer EOD Cover Pool Priority of Payments*" below, or when it exercises its election to do so pursuant to the Korean Account Bank Agreement, open the Reserve Cash Account

with the relevant Reserve Account Bank in the name of the Issuer but indicating the Cover Pool in the account name, subject to and in accordance with the terms of the Korean Account Bank Agreement. For the avoidance of doubt, nothing in the Establishment Deed prevents the Issuer opening the Reserve Cash Account with the relevant Reserve Account Bank prior to a date on which it is required to do so.

The Issuer will open the Reserve Securities Account with the Securities Depository or Euroclear and may open Swap Securities Collateral Accounts with the Custodian Bank pursuant to the paragraphs above and the relevant Account Bank Agreement, in each case in the name of the Issuer but indicating the Cover Pool in the account name prior to:

- (a) in respect of each Swap Securities Collateral Account, the first date on which Swap Collateral may be required to be transferred to the Issuer by the relevant Swap Provider pursuant to the terms of the relevant Swap; and
- (b) in respect of the Reserve Securities Account, the first date on which it is required to do so pursuant to the section entitled “— *Pre-Maturity Liquidity*” above.

For the avoidance of doubt, nothing in the Establishment Deed prevents the Issuer opening any Reserve Securities Account with the Securities Depository or Euroclear, or Swap Securities Collateral Account(s) with the Custodian Bank prior to a date on which it is required to do so.

The Issuer may, pursuant to clause 2.1.3 of the Korean Account Bank Agreement or clause 2.1.2 of the Hong Kong Account Bank Agreement, open and maintain one or more additional Swap Cash Collateral Accounts and/or KRW and/or non-KRW denominated cash accounts with the relevant Reserve Account Bank(s) or such other bank (which will be subject to the Reserve Account Bank Required Ratings as if such other bank is a Reserve Account Bank) as may be approved by the Asset Monitor in the name of the Issuer but indicating the Cover Pool in the account name, subject to and in accordance with the terms of the Korean Account Bank Agreement or the Hong Kong Account Bank Agreement, provided that upon the occurrence of a Convertibility Notice Event, the Issuer will open and maintain, as soon as reasonably practicable, one or more additional onshore Swap Cash Collateral Accounts for the deposit of Swap Collateral by each Swap Provider onshore (to the extent the Issuer does not already have an onshore Swap Cash Collateral Account for the deposit of Swap Collateral in respect of the relevant Swap Agreement at such time) and one or more additional onshore Swap Payment Accounts for the payment of Swap Payment Amounts to the Issuer by each Swap Provider onshore for as long as the Convertibility Occurrence subsists. If any accounts are opened in accordance with this section entitled “— *Cover Pool Accounts*” with a bank that is not a Reserve Account Bank, the Issuer shall enter into an account bank agreement with such bank which includes provisions for the replacement of such account bank if it did not have the Reserve Account Bank Required Ratings on substantially the same terms as those between the Issuer and the Reserve Account Bank.

The Issuer will register, and will register as soon as practicably reasonable in the case of any accounts opened after the Programme Date, the accounts opened pursuant to the paragraphs above with the FSC in accordance with the section entitled “— *Establishment and Segregation of the Cover Pool*” above.

Promptly and in any event within 30 calendar days of the occurrence of a Transaction Account Bank Termination Event, the Issuer (or the Asset Monitor on its behalf) will procure that a new Transaction Account is opened with a replacement Transaction Account Bank and that the Cover Pool assets held in the Transaction Account held with the initial Transaction Account Bank are transferred to the replacement Transaction Account at such replacement Transaction Account Bank in accordance with the Korean Account Bank Agreement.

Promptly, and in any event within 30 calendar days of the occurrence of a Reserve Account Bank Termination Event, the Issuer (or the Asset Monitor on its behalf) will procure that new Cover Pool Cash Accounts (other than the Transaction Account) are opened with a replacement Reserve Account Bank and that the Cover Pool assets held in the relevant Cover Pool Cash Accounts (other than the Transaction Account) held with such initial Reserve Account Bank are transferred to the replacement Cover Pool Cash Accounts (other than the Transaction Account) at such replacement Reserve Account Bank in accordance with the relevant Account Bank Agreement. If any Swap Securities Collateral Accounts have been opened in accordance with the relevant Account Bank Agreement, promptly and in any event within 30 calendar days of the occurrence of a Custodian Bank Termination Event in respect of the Custodian Bank, the Issuer (or the Asset Monitor on its behalf) will procure that the relevant new Swap Securities Collateral Accounts are opened with a replacement Custodian Bank and that the Cover Pool assets held in the relevant Swap Securities Collateral Accounts held with such initial Custodian Bank are transferred to the relevant replacement Swap Securities Collateral Accounts at such replacement Custodian Bank in accordance with each relevant Account Bank Agreement.

Cover Pool Cash Accounts

The Issuer will, for so long as any Covered Bonds are issued and remain outstanding, at all times:

- (a) maintain a Transaction Account with the Transaction Account Bank and before a replacement Transaction Account is opened, deposit any collections or proceeds in respect of Mortgage Loans identified in the Cover Pool Ledger into such Transaction Account within one Korean Business Day of its receipt of such collections or proceeds in the general collection account(s) of the Issuer, or once a replacement Transaction Account is opened, arrange for the deposit of any collections or proceeds in respect of Mortgage Loans identified in the Cover Pool Ledger directly into such Transaction Account by way of automatic direct debit;
- (b) once opened as described in the sections entitled “— *Pre-Maturity Liquidity*” or “— *Reserve Fund*” above or the Korean Account Bank Agreement, maintain a Reserve Cash Account with the relevant Reserve Account Bank, and deposit any Liquid Assets in the form of cash which the Issuer may from time to time add to the Cover Pool, any cash amount required to be paid by the Issuer as summarised under the sections entitled “— *Pre-Maturity Liquidity*” or “— *Reserve Fund*” above or “— *Cover Pool Priority of Payments — Pre-Issuer EOD Cover Pool Priority of Payments*” below into the relevant ledger of such Reserve Cash Account;
- (c) maintain one or more Swap Cash Collateral Accounts with the relevant Reserve Account Bank, and deposit any Swap Collateral in the form of cash received from any Swap Provider into such Swap Cash Collateral Accounts; and
- (d) once opened pursuant to the section entitled “— *Cover Pool Accounts*” above, maintain one or more non-KRW denominated cash accounts with the relevant Reserve Account Bank(s) or such other bank as may be approved by the Asset Monitor, and deposit any non-KRW denominated amounts received from any Swap Provider, including any amounts due to the Issuer under the Swaps following a Convertibility Notice Event (as applicable), into such accounts.

Cover Pool Securities Accounts

The Issuer will, for so long as any Covered Bonds are issued and remain outstanding, at all times:

- (a) once opened as described in the section entitled “— *Cover Pool Accounts*” above, maintain a Reserve Securities Account with the Securities Depository or Euroclear, and deposit (i) any Pre-Maturity Liquidity Assets other than cash delivered by the Issuer as summarised under the section entitled “— *Pre-Maturity Liquidity*” above into such Reserve Securities Account; and (ii) any securities identified in the Cover Pool Ledger as Liquid Assets forming part of the Cover Pool in the Reserve Securities Account; and
- (b) once opened as described in the section entitled “— *Cover Pool Accounts*” above, maintain one or more Swap Securities Collateral Accounts with the Custodian Bank pursuant to the section entitled “— *Cover Pool Accounts*” and the relevant Account Bank Agreement, and deposit any Swap Collateral in the form of securities received from any Swap Provider into such Swap Securities Collateral Accounts,

and the Issuer will procure that all coupons or other distributions arising from assets credited to the Swap Securities Collateral Account and disposal and redemption proceeds in respect thereto are credited to the Swap Cash Collateral Account and all coupons or other distributions arising from assets credited to the Liquid Assets Ledger of the Reserve Securities Account and disposal and redemption proceeds in respect thereto are credited to the Liquid Assets Ledger of the Reserve Cash Account, and all coupons or other distributions arising from assets credited to the Reserve Securities Account and disposal and redemption proceeds in respect thereto are credited to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account, as applicable.

Ledgers

The Issuer will maintain the following ledgers:

- (a) a Pre-Maturity Liquidity Ledger in the Reserve Cash Account, to record the credits and debits of Pre-Maturity Liquidity Assets in the form of cash available to repay any Series of Hard Bullet Covered Bonds on the Maturity Date thereof if the Pre-Maturity Test has been breached in accordance with the terms of the Establishment Deed;
- (b) a Liquid Assets Ledger in the Reserve Cash Account, to record the crediting and debiting of Liquid Assets in the form of cash in accordance with the terms of the Establishment Deed;
- (c) a Reserve Ledger in the Reserve Cash Account, to record the crediting and debiting of the Reserve Fund in accordance with the terms of the Establishment Deed;

- (d) a Pre-Maturity Liquidity Ledger in the Reserve Securities Account, to record the credits and debits of Pre-Maturity Liquidity Assets other than in the form of cash available to repay any Series of Hard Bullet Covered Bonds on the Maturity Date thereof if the Pre-Maturity Test has been breached in accordance with the terms of the Establishment Deed; and
- (e) a Liquid Assets Ledger in the Reserve Securities Account, to record the crediting and debiting of Liquid Assets other than in the form of cash in accordance with the terms of the Establishment Deed.

The Issuer has acknowledged and agreed that the Asset Monitor has full signing rights in respect of the Cover Pool Accounts upon the occurrence of an Issuer Event of Default in accordance with the Korean Covered Bond Laws.

Payments and Cash Release

Costs and Expenses

Prior to the service of an Issuer EOD Notice, any and all fees, all costs and expenses (including legal fees and expenses) properly incurred and any liabilities, claims, losses and indemnities incurred by the Trustee, the Asset Monitor, any Account Bank, any Agent and/or any Replacement Servicer and their respective directors, officers, employees, delegates and agents (each an “**indemnified party**”), as the case may be, in relation to the Covered Bonds, the Transaction Documents and the managing, maintenance and disposal of all or part of the Cover Pool will be for the account of the Issuer, and the Issuer will pay, and will indemnify each indemnified party against, any and all such fees, claims, losses, liabilities, indemnities, costs and expenses incurred or suffered by such indemnified party, and will pay an amount equal to the same to such indemnified party within five Korean Business Days upon receipt by the Issuer of a demand therefor accompanied by reasonable evidence that such costs and expenses have been incurred or suffered by any such indemnified party; provided that (i) this indemnity will not apply in respect of an indemnified party to the extent that a court of competent jurisdiction determines that any such fees, claims, losses, liabilities, indemnities, costs and expenses incurred or suffered by or brought against such indemnified party arises directly from the fraud, wilful default or gross negligence of such indemnified party and (ii) this indemnity is without prejudice to the indemnities provided under the Trust Deed and the Agency Agreement. Any indemnified party may enforce the indemnity provisions of this paragraph in accordance with The Contracts (Rights of Third Parties) Act 1999. Following the service of an Issuer EOD Notice, any such fees, claims, losses, liabilities, indemnities, costs and expenses will be paid in accordance with the Cover Pool Priority of Payments described below.

Daily Cash Release

Subject to the section entitled “— *Cover Pool Priority of Payments — Pre-Issuer EOD Cover Pool Priority of Payments*” below, on each Korean Business Day from and including the Initial Filing Date and prior to the service of an Issuer EOD Notice, cash standing to the credit of the Transaction Account may be withdrawn by the Issuer (a “**Daily Cash Release**”), provided that each of the following conditions (the “**Cash Release Conditions**”) are satisfied:

- (a) the amount standing to the credit of the Reserve Ledger of the Reserve Cash Account (if any) is not less than the Reserve Fund Required Amount;
- (b) for so long as the Issuer is in breach of the Pre-Maturity Test, the Pre-Maturity Test Cure Requirement has been satisfied;
- (c) the Asset Coverage Test was satisfied on the immediately preceding Calculation Date and would have been satisfied on such immediately preceding Calculation Date after taking into account the proposed withdrawal of cash, provided that the Asset Coverage Test will be deemed to have been satisfied from and including the Programme Date to and excluding the Calculation Date immediately following the first Issue Date under the Programme and this paragraph (c) will not apply where no Covered Bonds are issued and remain outstanding at the time of withdrawal; and
- (d) there is no breach of the Korean Covered Bond Act both before and after the withdrawal.

Swap Collateral

The Issuer (or the Asset Monitor on its behalf) will credit to the Swap Cash Collateral Account(s) or Swap Securities Collateral Account(s) any Swap Collateral deposited by any Swap Provider, together with any income, interest and/or distributions thereof, in respect of any Swap Agreement in accordance with the terms of any such Swap Agreement.

The Issuer (or the Asset Monitor on its behalf) will debit to the relevant Swap Cash Collateral Account or Swap Securities Collateral Account any Swap Collateral returned to the relevant Swap Provider or otherwise withdrawn in respect of such Swap Agreement in accordance with the terms of any such Swap Agreement.

Swap Payments

Upon occurrence of a Convertibility Notice Event, the Issuer will open one or more additional onshore Swap Cash Collateral Accounts and onshore Swap Payment Accounts in accordance with the section entitled “— *Cover Pool Accounts*” above and will notify each Swap Provider and each Rating Agency of such accounts within one Business Day of opening such accounts.

Upon the termination of a Swap Agreement, the Issuer or the relevant Swap Provider may be liable to make a termination payment to the other in accordance with the provisions of such Swap Agreement. Any termination payment made by a Swap Provider to the Issuer in respect of the relevant Swap Agreement (together with any Swap Collateral Available Amounts) will first be used by the Issuer or (following the service of an Issuer EOD Notice) the Asset Monitor, to the extent necessary prior to the service of an Acceleration Notice, to pay a replacement Swap Provider to enter into a replacement Swap with the Issuer or (following the service of an Issuer EOD Notice) the Asset Monitor on behalf of the Issuer, unless a replacement Swap Agreement has already been entered into by or on behalf of the Issuer. Thereafter, any excess amounts will be transferred to the Transaction Account and applied in accordance with the applicable Cover Pool Priority of Payments.

Any premium received by the Issuer from a replacement Swap Provider entering into a replacement Swap Agreement will first be used by the Issuer or (following the service of an Issuer EOD Notice) the Asset Monitor to make any termination payment due and payable by the Issuer with respect to the Swap Agreement which is being replaced, unless such termination payment has already been made by or on behalf of the Issuer. Thereafter, any excess amounts will be transferred to the Transaction Account and applied in accordance with the applicable Cover Pool Priority of Payments.

Swap Collateral Excluded Amounts, if applicable and if due to be returned to the Swap Provider in accordance with the relevant Swap Agreement, will be returned by the Issuer or (following the service of an Issuer EOD Notice) the Asset Monitor to the Swap Provider directly and not via the Cover Pool Priority of Payments.

Following the service of an Issuer EOD Notice, any late amounts received by the Issuer under a Swap Agreement (other than amounts in respect of Swap Collateral Excluded Amounts) on or after a Monthly Distribution Date but prior to the next following Monthly Distribution Date will be applied by the Asset Monitor, to the extent that any amounts were not able to be paid or provided for under the Cover Pool Priority of Payments on the relevant Monthly Distribution Date due to the Issuer receiving a late payment from a Swap Provider, promptly to pay or provide for those amounts in the order of priority specified in the Cover Pool Priority of Payments. Thereafter, any excess amounts after such payment or provision will be transferred to the Transaction Account and applied in accordance with the Cover Pool Priority of Payments on the next succeeding Monthly Distribution Date (or the relevant Interest Payment Date or Swap Payment Date, as applicable).

The Issuer (or, following the service of an Issuer EOD Notice, the Asset Monitor) shall provide prior written notices to the relevant Reserve Account Bank with respect to the termination of a relevant Swap Agreement and/or the entry of a relevant replacement Swap, provided that the Issuer maintains an account with such Reserve Account Bank for such terminated Swap and/or replacement Swap at the time of such events.

Cover Pool Priority of Payments

Pre-Issuer EOD Cover Pool Priority of Payments

Prior to the service of an Issuer EOD Notice, funds standing to the credit of the Transaction Account will be applied by the Issuer on each Korean Business Day in making the following payments and provisions in the following priority:

- (a) to deposit into the Reserve Cash Account (and credit to the Reserve Ledger) an amount equal to the amount by which the Reserve Fund Required Amount exceeds the balance standing to the credit of the Reserve Ledger of the Reserve Cash Account;
- (b) for so long as the Issuer is in breach of the Pre-Maturity Test, if the Pre-Maturity Test Cure Requirement has not been satisfied, to deposit into the Reserve Cash Account (and credit to the Pre-Maturity Liquidity Ledger) an amount equal to the amount which would be required in order to satisfy the Pre-Maturity Test Cure Requirement; and

- (c) any remainder to be applied as Daily Cash Release if permitted in accordance with the section entitled “— *Payments and Cash Release — Daily Cash Release*” above, or otherwise to be retained in the Transaction Account.

For the avoidance of doubt, prior to the service of an Issuer EOD Notice, amounts due and payable to any Swap Provider (including any Swap Termination Payments) will be paid by the Issuer and will not be paid from the assets in the Cover Pool.

Application of funds following an Issuer EOD Notice

Following the service of an Issuer EOD Notice but prior to the service of an Acceleration Notice on the Issuer, assets in the Cover Pool will be applied by the Asset Monitor as described in the sections entitled “— *Application of funds in the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and of the Reserve Securities Account*” and “— *Pre-Acceleration Cover Pool Priority of Payments*” below. Following the service of an Acceleration Notice on the Issuer, assets in the Cover Pool will be applied by the Asset Monitor in accordance with the section entitled “— *Post-Acceleration Cover Pool Priority of Payments*” below.

Application of funds in the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and of the Reserve Securities Account

Following the service of an Issuer EOD Notice, any cash or proceeds from any assets credited to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and of the Reserve Securities Account will be applied by the Asset Monitor in making the following payments and provisions in the following priority:

- (a) to redeem any Hard Bullet Covered Bonds that are scheduled to mature during the relevant Pre-Maturity Test Period;
- (b) to pay costs and expenses relating to the preparation and delivery of KFTC Notices in accordance with the Korean Account Bank Agreement and Perfection Notices in accordance with the Establishment Deed; and
- (c) any remainder towards application in accordance with the section entitled “— *Pre-Acceleration Cover Pool Priority of Payments*” below.

Pre-Acceleration Cover Pool Priority of Payments

Following the service of an Issuer EOD Notice, subject to the section entitled “— *Application of funds in the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and of the Reserve Securities Account*” above in respect of the application of any cash or proceeds from any assets credited to the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and of the Reserve Securities Account, funds in the Transaction Account, the Liquid Assets Ledger of the Reserve Cash Account, the Reserve Ledger of the Reserve Cash Account and the proceeds from any disposal of assets in the Liquid Assets Ledger of the Reserve Securities Account as at the end of each Calculation Period will be applied by the Asset Monitor on the Monthly Distribution Date falling in the month following such Calculation Period (or the relevant Interest Payment Date or Swap Payment Date, if specified below) in making the following payments and provisions in the following priority:

- (a) in or towards satisfaction *pro rata* and *pari passu* according to the respective amounts thereof of:
 - (i) any costs, claims, losses, liabilities, indemnities, fees, expenses (including legal fees and expenses) and other amounts due and payable (including by way of indemnity), or to become due and payable (and for which payment has not been otherwise provided) prior to the following Monthly Distribution Date (together with applicable Taxes thereon to the extent provided for), to the Asset Monitor and its Delegates pursuant to the terms of the relevant Transaction Documents or applicable fee letters; and
 - (ii) any costs, claims, losses, liabilities, indemnities, fees, expenses (including legal fees and expenses) and other amounts due and payable (including by way of indemnity), or to become due and payable (and for which payment has not been otherwise provided) prior to the following Monthly Distribution Date (together with applicable Taxes thereon to the extent provided for), to the Trustee and any Appointee, in each case pursuant to the terms of the relevant Transaction Documents or applicable fee letters;
- (b) in or towards satisfaction *pro rata* and *pari passu* according to the respective amounts thereof of costs, claims, losses, liabilities, indemnities, fees, expenses (including legal fees and expenses) and other amounts due and payable (including by way of indemnity), or to become due and payable (and for which payment has not been otherwise provided) prior to the following Monthly Distribution Date (together with applicable

Taxes thereon to the extent provided for), to the Agents, Replacement Servicer, Transaction Account Bank, Reserve Account Banks and Custodian Bank, in each case pursuant to the terms of the relevant Transaction Documents or applicable fee letters;

- (c) in or towards payment *pro rata* and *pari passu* of any Swap Termination Payment due and payable to each relevant Swap Provider (other than due to Swap Provider Default) (except to the extent that such amounts have been paid out of any premiums received from each relevant replacement Swap Provider);
- (d) in or towards payment *pro rata* and *pari passu* of any amounts due or to become due prior to the following Monthly Distribution Date in respect of interest on any Series of Covered Bonds by making the following payments in the following priority:
 - (i) on the relevant Swap Payment Date related to a Series of Covered Bonds, in or towards payment of any amount (in respect of interest) due to the relevant Swap Providers by the Issuer *pro rata* and *pari passu* in respect of each relevant Swap; and
 - (ii) on the relevant Interest Payment Date, after taking into account any amounts receivable from the Swap Providers on such Interest Payment Date (including any Swap Payment Amounts paid by the Swap Providers into any Swap Payment Accounts following a Convertibility Notice Event), or the proceeds of any spot exchange in accordance with the section entitled “— *Currency Exchange*” below, in or towards payment of any amounts due in respect of interest on each relevant Series of Covered Bonds on a *pro rata* and *pari passu* basis;

provided that if the amount available for distribution under this paragraph (d) (excluding any amounts received or to be received from a relevant Swap Provider) would be insufficient to pay the KRW Equivalent of the interest that is or will be due for payment in respect of each Series of Covered Bonds under sub-paragraph (ii) above, the shortfall will be divided amongst all such Series of Covered Bonds on a *pro rata* and *pari passu* basis and the amount payable by the Asset Monitor to any Swap Provider under the relevant Swap Agreement in respect of each relevant Series of Covered Bonds or provision to be made in respect thereof under sub-paragraph (i) above will be correspondingly reduced to take into account the shortfall applicable to the Covered Bonds in respect of which such payment is to be made;

- (e) in or towards payment *pro rata* and *pari passu* of any amounts due or to become due prior to the following Monthly Distribution Date in respect of principal on any Series of Covered Bonds of which the relevant Maturity Date falls prior to the following Monthly Distribution Date by making the following payments in the following priority:
 - (i) on the relevant Swap Payment Date related to a Series of Covered Bonds, in or towards payment of any amount (in respect of principal) due to the relevant Swap Providers by the Issuer *pro rata* and *pari passu* in respect of each relevant Swap; and
 - (ii) on the relevant Maturity Date, after taking into account any amounts receivable from the Swap Providers on such Interest Payment Date in respect of principal (including any Swap Payment Amounts paid by the Swap Providers into any Swap Payment Accounts following a Convertibility Notice Event), or the proceeds of any spot exchange in accordance with the section entitled “— *Currency Exchange*” below, in or towards payment of any amounts due in respect of principal on each relevant Series of Covered Bonds on a *pro rata* and *pari passu* basis;

provided that if the amount available for distribution under this paragraph (e) (excluding any amounts received or to be received from the relevant Swap Provider) would be insufficient to pay the KRW Equivalent of the principal that is or will be due for payment in respect of each Series of Covered Bonds under sub-paragraph (ii) above, the shortfall will be divided amongst all such Series of Covered Bonds on a *pro rata* and *pari passu* basis and the amount payable by the Asset Monitor to any Swap Provider under the relevant Swap Agreement in respect of each relevant Series of Covered Bonds or provision to be made in respect thereof under sub-paragraph (i) above will be correspondingly reduced to take into account the shortfall applicable to the Covered Bonds in respect of which such payment is to be made;

- (f) in respect of any Series of Extended Covered Bonds in or towards payment *pro rata* and *pari passu* of any amounts due or to become due prior to the following Monthly Distribution Date in respect of principal on such Series of Covered Bonds by making the following payments in the following priority:
 - (i) on the relevant Swap Payment Date related to such Series of Covered Bonds, in or towards payment of any amount (in respect of principal) due to the relevant Swap Providers by the Issuer *pro rata* and *pari passu* in respect of each relevant Swap; and
 - (ii) on the relevant Interest Payment Date, after taking into account any amounts receivable from the Swap Providers on such Interest Payment Date in respect of principal (including any Swap Payment Amounts

paid by the Swap Providers into any Swap Payment Accounts following a Convertibility Notice Event), or the proceeds of any spot exchange in accordance with the section entitled “— *Currency Exchange*” below, in or towards payment of the Final Redemption Amount or the relevant proportion thereof in respect of each relevant Series of Extended Covered Bonds on a *pro rata* and *pari passu* basis;

provided that if the amount available for distribution under this paragraph (f) (excluding any amounts received or to be received from the relevant Swap Provider) would be insufficient to pay the KRW Equivalent of the principal that is or will be due for payment in respect of each Series of Extended Covered Bonds under sub-paragraph (ii) above, the shortfall will be divided amongst all such Series of Extended Covered Bonds on a *pro rata* and *pari passu* basis and the amount payable by the Asset Monitor to any Swap Provider under the relevant Swap Agreement in respect of each relevant Series of Extended Covered Bonds or provision to be made in respect thereof under sub-paragraph (i) above will be correspondingly reduced to take into account the shortfall applicable to the Covered Bonds in respect of which such payment is to be made;

- (g) in or towards payment *pro rata* and *pari passu* according to the respective amounts thereof on the Final Exchange Date of each relevant Swap, any Extension Charges Balance due but unpaid under the relevant Swap Agreement to each relevant Swap Provider;
- (h) in or towards payment *pro rata* and *pari passu* of any Swap Termination Payment to each relevant Swap Provider due to Swap Provider Default (except to the extent that such amounts have been paid out of any premiums received from each relevant replacement Swap Provider); and
- (i) any remainder to be credited to the Transaction Account, until all Priority Payment Rights are repaid in full, and thereafter to the Issuer as the Issuer may direct.

Post-Acceleration Cover Pool Priority of Payments

Following the service of an Acceleration Notice, the Asset Monitor will arrange for the disposal of all assets in the Cover Pool, and all funds in the Transaction Account, the Reserve Cash Account, the proceeds from disposal of assets in the Cover Pool and any cash or proceeds from any assets credited to the Reserve Securities Account will be applied by the Asset Monitor on any date selected by the Asset Monitor in making the following payments and provisions in the following priority:

- (a) in or towards satisfaction *pro rata* and *pari passu* according to the respective amounts thereof of:
 - (i) any costs, claims, losses, liabilities, indemnities, fees, expenses (including legal fees and expenses) and other amounts due and payable (including by way of indemnity), or to become due and payable (and for which payment has not been otherwise provided) (together with applicable Taxes thereon to the extent provided for), to the Asset Monitor and its Delegates pursuant to the terms of the relevant Transaction Documents or applicable fee letters; and
 - (ii) any costs, claims, losses, liabilities, indemnities, fees, expenses (including legal fees and expenses) and other amounts due and payable (including by way of indemnity), or to become due and payable (and for which payment has not been otherwise provided) (together with applicable Taxes thereon to the extent provided for), to the Trustee and any Appointee, in each case pursuant to the terms of the relevant Transaction Documents or applicable fee letters;
- (b) in or towards satisfaction *pro rata* and *pari passu* according to the respective amounts thereof of costs, claims, losses, liabilities, indemnities, fees, expenses (including legal fees and expenses) and other amounts due and payable (including by way of indemnity), or to become due and payable (and for which payment has not been otherwise provided) (together with applicable Taxes thereon to the extent provided for), to the Agents, Replacement Servicer, Transaction Account Bank, Reserve Account Banks and Custodian Bank, in each case pursuant to the terms of the relevant Transaction Documents or applicable fee letters;
- (c) in or towards payment *pro rata* and *pari passu* of any Swap Termination Payment due and payable to each relevant Swap Provider (other than due to Swap Provider Default) (except to the extent that such amounts have been paid out of any premiums received from each relevant replacement Swap Provider);
- (d) in or towards payment of all amounts in respect of interest and principal due and payable on each Series of Covered Bonds on a *pro rata* and *pari passu* basis until the Covered Bonds are repaid in full;
- (e) in or towards payment *pro rata* and *pari passu* according to the respective amounts thereof on the Final Exchange Date of each relevant Swap, any Extension Charges Balance due but unpaid under the relevant Swap Agreement to each relevant Swap Provider;

- (f) in or towards payment *pro rata* and *pari passu* of any Swap Termination Payment to each relevant Swap Provider due to Swap Provider Default (except to the extent that such amounts have been paid out of any premiums received from each relevant replacement Swap Provider); and
- (g) any remainder to the Issuer as the Issuer may direct.

Currency Exchange

Following the service of an Issuer EOD Notice, other than where the relevant exchanges of currency are made pursuant to outstanding Swaps, the Asset Monitor will perform all exchanges of Korean Won into any currency other than Korean Won as may be required to make any payment pursuant to the Cover Pool Priority of Payments on or before the relevant date on which such payment is due at the spot exchange rate as it is able to obtain on such date in Seoul.

The Asset Monitor will not be liable to any person for any loss which may arise as a result of the Asset Monitor effecting any foreign exchange transactions in accordance with these paragraphs in “Currency Exchange” other than where such loss is suffered or incurred as a result of any negligence, wilful default or fraud of the Asset Monitor.

Payment outside of Cover Pool

For the avoidance of doubt, nothing in this section entitled “— *Cover Pool Priority of Payments*” will restrict the Issuer from applying any of its other assets (outside of the Cover Pool) towards the satisfaction of the Priority Payment Rights whether prior to or following the service of an Issuer EOD Notice.

Other

The Establishment Deed is governed by English law.

Asset Monitor Agreement

The Asset Monitor to Monitor the Cover Pool

Under the terms of the Asset Monitor Agreement entered into on or about the Initial Filing Date between the Asset Monitor, the Issuer and the Trustee, the Asset Monitor has agreed to perform the duties set out in Article 11(1) of the Korean Covered Bond Act and Article 10(1) of the FSC Regulations (each as may be amended or supplemented from time to time) in respect of the Cover Pool for the purposes of the Korean Covered Bond Laws, including, for the avoidance of doubt, an accounting audit of the Cover Pool.

The Asset Monitor has agreed to carry out such functions of the Asset Monitor in respect of the Cover Pool as are prescribed by the Korean Covered Bond Laws, including, without limitation, in accordance with the following in connection with any Cause of Disposal Event:

- (a) following the service of an Issuer EOD Notice:
 - (i) managing, maintaining and (if it deems appropriate) disposing of all or part of the Cover Pool;
 - (ii) receiving proceeds and collections from the Cover Pool and payments from any Swap Provider;
 - (iii) instructing the Issuer (or, as the case may be, the Replacement Servicer) in respect of the servicing of the Mortgage Loans;
 - (iv) applying any cash and assets of the Cover Pool in accordance with the applicable Cover Pool Priority of Payments;
 - (v) investing any cash in the Cover Pool in other Liquid Assets that are registered as part of the Cover Pool, subject to providing for any imminent payment obligations falling due;
 - (vi) if the Issuer is also the Transaction Account Bank, arranging for a new Transaction Account to be established with a replacement Transaction Account Bank in accordance with the Establishment Deed and the Korean Account Bank Agreement (including any necessary arrangements with respect to the service of KFTC Notices);
 - (vii) if the Issuer is also the Reserve Account Bank, arranging for new Cover Pool Cash Accounts (other than the Transaction Account) to be established with a replacement bank in accordance with the Establishment Deed and the Korean Account Bank Agreement;

- (viii) appointing any Replacement Servicer and/or any person as its agent, subcontractor or delegate (each a “**Delegate**”) to manage and maintain the Cover Pool and prepare Investor Reports if and to the extent that the Asset Monitor deems it necessary in order to satisfy the Asset Monitor’s obligations under Article 10(3) of the Korean Covered Bond Act, and providing any Replacement Servicer and/or the relevant Delegate with the Data File received from the Issuer pursuant to the section entitled “— *Provision of Information and Assistance to the Asset Monitor*” below, to the extent permitted by and subject to, all applicable laws; and
 - (ix) determining the occurrence of a Benchmark Transition Event (as defined in the Conditions) and its related Benchmark Replacement Date (as defined in the Conditions), making Benchmark Replacement Conforming Changes (as defined in the Conditions) and conducting relevant activities pursuant to Condition 4(k) (*Benchmark Discontinuation*) under this Offering Circular.
- (b) following the service of an Acceleration Notice:
- (i) taking any of the actions specified in the sub-paragraph (a) above as it deems necessary or desirable;
 - (ii) to the extent not already disposed of following the occurrence of an Issuer Event of Default, disposing of all or part of the Cover Pool as it deems appropriate; and
 - (iii) applying any cash and assets of the Cover Pool in accordance with the applicable Cover Pool Priority of Payments,

provided that, in connection with the management, maintenance and/or disposal of the Cover Pool, the Asset Monitor will perform such duties with the level of due care as is required of the Asset Monitor under the Korean Covered Bond Laws. It will exercise the standard of care necessary to protect the interests of the Priority Payment Right Holders, acting reasonably and in good faith for and on behalf of the Priority Payment Right Holders.

In addition, following the occurrence of a Servicer Replacement Event, the Asset Monitor may, if it deems appropriate in its sole discretion to ensure continued servicing of the Mortgage Loans and to maintain the ratings of the Covered Bonds, request that the Issuer and the Asset Monitor jointly appoint a replacement servicer (the “**Replacement Servicer**”) that satisfies such rating or other criteria as may be applicable to maintain the ratings of the Covered Bonds at the relevant time to service the Mortgage Loans and to enter into a servicing agreement with such Replacement Servicer, and file an amendment to the Covered Bond Issuance Plan for such appointment, provided that, if the Asset Monitor and the Issuer fail to jointly appoint a Replacement Servicer within 30 calendar days after the Asset Monitor has notified the Issuer in writing that it deems such appointment to be appropriate, the Asset Monitor will solely appoint a Replacement Servicer within a further 30 calendar days without further consultation with or involvement of the Issuer.

Following the occurrence of a Cause of Disposal Event, if the Issuer has not provided satisfactory evidence of the serving of Perfection Notices in accordance with the section entitled “— *Perfection Notices*” above, the Asset Monitor may, if it deems appropriate in its sole discretion, exercise its rights under the section entitled “— *Perfection Notices*” above to execute and serve Perfection Notices on the relevant Borrowers and on SGIC.

If a replacement Transaction Account has been opened but the Issuer has failed to serve KFTC Notices as required by the Korean Account Bank Agreement, the Asset Monitor will take such action as is required pursuant to the Korean Account Bank Agreement, and may take any other action that the Asset Monitor deems appropriate to procure that all automatic debit payments of the Borrowers are made directly to the replacement Transaction Account.

Testing of Asset Coverage Test and the Required Collateralisation Ratio

The Asset Monitor has agreed, subject to due receipt of the information to be provided by the Issuer to the Asset Monitor, to conduct tests in respect of the accuracy of the calculations performed by the Issuer in relation to the Asset Coverage Test and the Required Collateralisation Ratio in respect of each Calculation Date falling in March, June, September or December in each year and such additional Calculation Dates as may be required with a view to confirm the accuracy of such calculations. For so long as the Issuer ceases to satisfy the applicable Minimum Required Ratings of either Rating Agencies and prior to the Issuer regaining the applicable Minimum Required Ratings of both Rating Agencies, the Asset Monitor will conduct such tests in respect of every Calculation Date.

Following the determination by the Asset Monitor of any errors in the accuracy of the calculations performed by the Issuer such that the Asset Coverage Test was not satisfied on any relevant Calculation Date (where the Issuer

had recorded it as being satisfied), the Asset Monitor will conduct such tests in respect of the Issuer's calculations in respect of every Calculation Date occurring during the period ending six months after each Calculation Date on which the Asset Coverage Test which included relevant errors was carried out.

Amortisation Test

For so long as any Covered Bonds are issued and remain outstanding, the Issuer will procure that, as of each Calculation Date following the service of an Issuer EOD Notice (but prior to the service of an Acceleration Notice on the Issuer), the Amortisation Test Adjusted Aggregate Loan Amount (as defined below) will be in an amount at least equal to the KRW Equivalent of the aggregate outstanding principal amount of all the Covered Bonds (the "**Amortisation Test**").

The Asset Monitor is required to calculate the Amortisation Test Adjusted Aggregate Loan Amount (as of each Calculation Date) on or prior to each Test Date following the service of an Issuer EOD Notice (but prior to the service of an Acceleration Notice on the Issuer).

The "Amortisation Test Adjusted Aggregate Loan Amount" will be calculated as at each Calculation Date as follows:

$$A+B+C$$

Where:

"A" means the aggregate of the following in respect of each Mortgage Loan:

- (a) the outstanding current principal balance of the relevant Mortgage Loan; multiplied by
- (b) N.

"N," "B" and "C" each has the meaning given to it in the section entitled "*— Asset Coverage Test*" above.

If, on any Test Date following the service of an Issuer EOD Notice, the Amortisation Test Adjusted Aggregate Loan Amount is less than the KRW Equivalent of the aggregate outstanding principal amount of all the Covered Bonds as calculated as of the Calculation Date immediately preceding that Test Date, then the Amortisation Test will be deemed to be breached and, if the Issuer fails to bring the Cover Pool into compliance with the Amortisation Test within 30 days of such breach, a Covered Bond Event of Default under Condition 10(b)(i) will occur. The Asset Monitor will immediately notify the Issuer, the Rating Agencies and the Trustee in writing of any such breach of the Amortisation Test, and the Trustee will be entitled to serve an Acceleration Notice on the Issuer in accordance with the Conditions. The results of each Amortisation Test will be included in the Asset Monitor Report.

Asset Monitor Report

In connection with the Asset Monitor's duties under Articles 11(1) and 11(2) of the Korean Covered Bond Act and the Asset Monitor Agreement, the Asset Monitor will, within 30 days following each Calculation Date falling in March, June, September and December in each year (or by such other deadline as provided in the Korean Covered Bond Laws from time to time) (each, an "**Asset Monitor Report Date**"):

- (a) provide a report in both the Korean and English language relating to such duties in the form required by the FSC from time to time and in accordance with the Agreed Procedures (the "**Asset Monitor Report**"), together with supporting documents to the FSC in such form as the FSC requires; and
- (b) provide each such Asset Monitor Report to each party to the Asset Monitor Agreement.

In accordance with Article 11(2) of the Korean Covered Bond Act, the Issuer and the Asset Monitor will make each such Asset Monitor Report available to Priority Payment Right Holders by publishing such Asset Monitor Report on the Issuer's website.

If the Agreed Procedures need to be performed more frequently than in respect of each Calculation Date falling in March, June, September and December in each year pursuant to the section entitled "*— Testing of Asset Coverage Test and the Required Collateralisation Ratio*" above or if the Amortisation Test is required to be calculated by the Asset Monitor in respect of each Calculation Date, then the Asset Monitor will deliver an Asset

Monitor Report in respect of each such additional Asset Monitor ACT Calculation Date or Calculation Date (as applicable) by not later than 10 Korean Business Days following the related Investor Report Date to each party to the Asset Monitor Agreement.

Provision of Information and Assistance to the Asset Monitor

In the absence of manifest error, the Asset Monitor may rely on any instructions, requests or representations made, notices given or information supplied in writing by any person reasonably believed by the Asset Monitor to be authorised from time to time by the Issuer in connection with the provision by the Issuer of information pursuant to the terms of the Asset Monitor Agreement.

Within five Korean Business Days of the occurrence of a Servicer Replacement Event and every six months thereafter (or within five Korean Business Days of a request by the Asset Monitor), the Issuer will provide the Asset Monitor (or if so directed by the Asset Monitor, the Replacement Servicer) with a data file in an encrypted form containing all information necessary for the management, maintenance and disposal of each Mortgage Loan (the “**Data File**”) to the extent permitted by and subject to all applicable laws.

At any time following the service of an Issuer EOD Notice, or if a Servicer Replacement Event has occurred and the Asset Monitor has requested that a Replacement Servicer be appointed, the Issuer will provide the Asset Monitor, the Replacement Servicer or any Delegate with full cooperation and assistance (including, without limitation, the secondment of its staff to the Asset Monitor, the Replacement Servicer or the Delegate) to enable the Asset Monitor, the Replacement Servicer or the Delegate to take the following actions if and to the extent necessary for management of the Cover Pool:

- (a) establishing and implementing a computer system (including, without limitation, providing the necessary computer software and hardware and any necessary licences free of charge) for managing and maintaining the Cover Pool if required by the Asset Monitor, the Replacement Servicer or the Delegate;
- (b) loading the data held by the Issuer in relation to the Cover Pool onto that system in machine-readable form if required by the Asset Monitor, the Replacement Servicer or the Delegate; and
- (c) providing any updated data file requested and reconstructing all Data Files to the extent that the relevant computer systems are not compatible, subject in any event to limitations under applicable law (including any law relating to protection of personal data).

The Issuer will pay to the Asset Monitor for its services a fee together with reasonable expenses of the Asset Monitor as separately agreed by the Issuer and the Asset Monitor in accordance with the Asset Monitor Fee Letter.

Termination

The Asset Monitor may, at any time, resign from its appointment under the Asset Monitor Agreement and the Issuer may terminate the appointment of the Asset Monitor, in each case in accordance with Article 9 of the Korean Covered Bond Act (or any successor or replacement provision from time to time). The Issuer will notify the Rating Agencies of any such resignation or termination.

Any costs, charges or expenses incurred by the Asset Monitor as a result of its resignation will be payable in full by the Asset Monitor and will not be liable for reimbursement by the Issuer and the Trustee save that the Asset Monitor will remain entitled to payment of any costs, charges, fees or expenses payable by the Issuer to the Asset Monitor in accordance with the Asset Monitor Agreement incurred or accruing prior to such resignation.

Following any receipt of any notice of resignation by the Asset Monitor or termination of the Asset Monitor’s appointment, the Issuer will promptly use all reasonable endeavours to appoint a substitute asset monitor to provide the services set out in the Asset Monitor Agreement, provided that such substitute asset monitor is an Eligible Asset Monitor that enters into an agreement substantially on the same terms as the terms of the Asset Monitor Agreement or on such other terms as are acceptable to the Issuer and the Trustee and the identity of such substitute asset monitor has been notified to the Rating Agencies by the Issuer.

Any costs, charges or expenses incurred by the Asset Monitor as a result of its appointment being terminated by the Issuer (together with the Asset Monitor’s rights under the section entitled “— *Provision of Information and Assistance to the Asset Monitor*” in relation to fees and expenses above) in relation to monies owing to the Asset

Monitor for the period up to and including the date of the termination of the Asset Monitor's appointment becoming effective) will be payable in full by the Issuer except where the Asset Monitor's appointment is terminated due to its wilful default, fraud or negligence.

Notwithstanding the resignation or termination of the resigned or terminated Asset Monitor, it will provide the services set out in the sections entitled “— *The Asset Monitor to Monitor the Cover Pool*,” “— *Testing of Asset Coverage Test and the Required Collateralisation Ratio*,” “— *Amortisation Test*” and “— *Asset Monitor Report*” above and perform the other obligations of the Asset Monitor under the Asset Monitor Agreement until such time as a new Asset Monitor is appointed in accordance with the preceding paragraphs.

Neither the Issuer nor the Trustee will be obliged to act as the Asset Monitor, and neither the Issuer nor the Trustee will have any obligation to monitor or supervise the performance by the Asset Monitor in any circumstances.

The Asset Monitor Agreement is governed by Korean law.

Account Bank Agreements

Account Bank Appointment

Pursuant to the terms of the Korean Account Bank Agreement entered into on or about the Initial Filing Date between the Issuer, the Transaction Account Bank, the Reserve Account Bank (in respect of the Reserve Cash Account), the Asset Monitor and the Trustee, the Transaction Account Bank will open and maintain the Transaction Account in the name of the Issuer on or about the Initial Filing Date and such Reserve Account Bank shall, within three Korean Business Days of receipt of an Account Opening Notice (as defined in the Korean Account Bank Agreement), open and maintain the Reserve Cash Account in the name of the Issuer but indicating the Cover Pool in the account name. Such Reserve Account Bank or such other bank (which will be subject to the Reserve Account Bank Required Ratings as if such other bank is a Reserve Account Bank) as may be approved by the Asset Monitor shall, upon receipt of notice from the Issuer, open and maintain one or more additional KRW and/or non-KRW denominated cash accounts in the name of the Issuer but indicating the Cover Pool in the account name. The Issuer will register all such accounts with the FSC as accounts of the Cover Pool in accordance with the requirements set out under the Korean Covered Bond Act.

Pursuant to the terms of the Hong Kong Account Bank Agreement entered into on or about the Initial Filing Date between the Issuer, the Reserve Account Bank (in respect of the Swap Cash Collateral Accounts), the Asset Monitor and the Trustee, such Reserve Account Bank will open and maintain the Swap Cash Collateral Accounts for each issue of Covered Bonds, all in the name of the Issuer but indicating the Cover Pool in the account name, on or prior to the date of such an issue of Covered Bonds. Such Reserve Account Bank will operate the Swap Cash Collateral Account(s) in accordance with the Hong Kong Account Bank Agreement and the bank Mandate in respect thereof (as defined therein). Such Reserve Account Bank or such other bank (which will be subject to the Reserve Account Bank Required Ratings as if such other bank is a Reserve Account Bank) as may be approved by the Asset Monitor shall, upon receipt of notice from the Issuer, open and maintain one or more additional Swap Cash Collateral Accounts, and any Reserve Account Bank or such other bank as may be approved by the Asset Monitor shall, upon receipt of notice from the Issuer, open and maintain one or more additional KRW and/or non-KRW denominated cash accounts in the name of the Issuer but indicating the Cover Pool in the account name. The Issuer will register all such accounts with the FSC as accounts of the Cover Pool in accordance with the requirements set out under the Korean Covered Bond Act.

Pursuant to the terms of the Custodian Bank Agreement entered into on or about the Programme Date between the Issuer, the Custodian Bank, the Asset Monitor and the Trustee, the Custodian Bank will, upon receipt of notice from the Issuer, open and maintain one or more Swap Securities Collateral Accounts (and any cash accounts relating thereto, as may be required), each in the name of the Issuer but indicating the Cover Pool in the account name, and the Issuer will in each case register the same as an account of the Cover Pool in accordance with the requirements set out under the Korean Covered Bond Act. The Custodian Bank will operate the Swap Securities Collateral Account(s) and any cash accounts relating thereto in accordance with the Custodian Bank Agreement and the bank Mandate in respect thereof (as defined therein).

Each of the Account Banks appointed, respectively, under the Korean Account Bank Agreement, the Hong Kong Account Bank Agreement or the Custodian Bank Agreement will comply with the terms of all Regulatory Requirements and the Korean Covered Bond Laws with regard to the operation and maintenance of the relevant Cover Pool Cash Accounts.

Account Bank Termination and Replacement

The Transaction Account Bank will cease to be the Transaction Account Bank if (each event below, a “**Transaction Account Bank Termination Event**”):

- (a) no Transaction Account Bank Relevant Entity has the Transaction Account Bank Required Ratings;
- (b) the Transaction Account Bank is KEB Hana Bank, and an Issuer EOD Notice is delivered; or
- (c) the Transaction Account Bank fails to comply with its obligations under the Korean Account Bank Agreement in any material respect as determined by the Trustee and such failure remains unremedied for 30 days after written notice thereof, addressed to the Transaction Account Bank, has been delivered by the Trustee to the Transaction Account Bank and the Issuer.

Following the occurrence of a Transaction Account Bank Termination Event, the Issuer (or the Asset Monitor on its behalf) will, within 30 days of such occurrence (unless, in the case where such Transaction Account Bank Termination Event has occurred due to the sub-paragraph (a) above, a Transaction Account Bank Relevant Entity again holds the Transaction Account Bank Required Ratings within such 30-day period):

- (a) close the Transaction Account and open a replacement Transaction Account (in the name of the Issuer but indicating the Cover Pool in the account name), with a financial institution (x) having the Transaction Account Bank Required Ratings and (y) being a person which holds all requisite licences or authorisations to perform the obligations of the Transaction Account Bank under the Korean Account Bank Agreement;
- (b) ensure that such replacement Transaction Account is registered with the FSC as part of the Cover Pool; and
- (c) following registration of the replacement Transaction Account with the FSC, transfer the amount standing to the credit of the Transaction Account to the replacement Transaction Account that has been opened with such financial institution.

Upon the opening of a replacement Transaction Account in accordance with sub-paragraph (a) immediately above, the Issuer (or the Asset Monitor on its behalf) will use its best efforts to, by the day that such replacement Transaction Account is opened (such notices sent pursuant to the below, “**KFTC Notices**”):

- (a) with respect to each Borrower for which the relevant automatic debit bank is not the Issuer, send a notice, signed on behalf of the Issuer and the replacement Transaction Account Bank, to the relevant bank terminating the automatic debit bank’s authority to transfer auto debit payments from each relevant Borrower in respect of Mortgage Loans in the Cover Pool to the general collection account of the Issuer and authorising such automatic debit bank to make all future payments from each Borrower to the replacement Transaction Account; and
- (b) send a letter to the KFTC, executed by the Issuer and the replacement Transaction Account Bank, authorising the KFTC to direct all future payments from each Borrower in respect of Mortgage Loans in the Cover Pool to the replacement Transaction Account and procure that consent to such instructions is obtained from the KFTC.

If the Issuer fails to serve KFTC Notices within five Korean Business Days of the date on which the replacement Transaction Account has been opened, the Asset Monitor will execute and serve such KFTC Notices on the banks or the KFTC as applicable.

Each Reserve Account Bank will cease to be a Reserve Account Bank if:

- (a) in respect of such Reserve Account Bank, no Reserve Account Bank Relevant Entity has the Reserve Account Bank Required Ratings;
- (b) the Reserve Account Bank is KEB Hana Bank, and an Issuer EOD Notice is delivered; or
- (c) such Reserve Account Bank fails to comply with its obligations under the relevant Account Bank Agreement in any material respect as determined by the Trustee and such failure remains unremedied for 30 days after written notice thereof, addressed to such Reserve Account Bank, has been delivered by the Trustee to such Reserve Account Bank and the Issuer,

each such event, a “Reserve Account Bank Termination Event,” and such defaulting Reserve Account Bank, a “Defaulting Reserve Account Bank.”

Following the occurrence of a Reserve Account Bank Termination Event, the Issuer (or the Asset Monitor on its behalf) will, within 30 days of such occurrence (unless, in the case where such Reserve Account Bank

Termination Event has occurred due to sub-paragraph (a) above, the relevant Reserve Account Bank Relevant Entity again holds the Reserve Account Bank Required Ratings within such 30-day period):

- (a) close all the relevant Cover Pool Cash Accounts which relate to the Defaulting Reserve Account Bank and open replacement relevant Cover Pool Cash Accounts (in the name of the Issuer but indicating the Cover Pool in the account name) with a financial institution (x) which has its jurisdiction of incorporation located outside Korea, provided this sub-paragraph (x) only applies if the Defaulting Reserve Account Bank is the Reserve Account Bank appointed under the Hong Kong Bank Account Agreement, (y) having the Reserve Account Bank Required Ratings and (z) being a person which holds all requisite licences or authorisations to perform the obligations of the Defaulting Reserve Account Bank under the relevant Account Bank Agreement;
- (b) ensure that such replacement relevant Cover Pool Cash Accounts are registered with the FSC as part of the Cover Pool; and
- (c) following registration of the replacement relevant Cover Pool Cash Accounts with the FSC, transfer the amounts standing to the credit of each relevant Cover Pool Cash Account (which relates to the Defaulting Reserve Account Bank) to the corresponding replacement relevant Cover Pool Cash Account that has been opened with such financial institution. The Custodian Bank will cease to be a Custodian Bank if (each event below, a “**Custodian Bank Termination Event**”):
- (d) the Custodian Bank does not have the Custodian Bank Required Ratings; or
- (e) the Custodian Bank fails to comply with its obligations under the Custodian Bank Agreement in any material respect as determined by the Trustee and such failure remains unremedied for 30 days after written notice thereof, addressed to the Custodian Bank, has been delivered by the Trustee to the Custodian Bank and the Issuer.

Following the occurrence of a Custodian Bank Termination Event the Issuer (or the Asset Monitor on its behalf) will, within 30 days of such occurrence (unless, in the case where such Custodian Bank Termination Event has occurred due to sub-paragraph (a) above and the Custodian Bank again holds the Custodian Bank Required Ratings within such 30-day period):

- (a) close all the Swap Securities Collateral Accounts and open replacement Swap Securities Collateral Account(s) (in the name of the Issuer but indicating the Cover Pool in the account name) with a financial institution (x) which has its jurisdiction of incorporation located outside Korea, (y) having the Custodian Bank Required Ratings and (z) being a person which holds all requisite licences or authorisations to perform the obligations of the Custodian Bank under the Custodian Bank Agreement;
- (b) ensure that such replacement Swap Securities Collateral Account(s) are registered with the FSC as part of the Cover Pool; and
- (c) following registration of the replacement Swap Securities Collateral Account(s) with the FSC, transfer the securities and any cash being held in the Swap Securities Collateral Account(s) to the corresponding replacement Swap Securities Collateral Account(s) that has been opened with such financial institution.

In the event of its termination and cessation or the closure of the relevant Cover Pool Cash Accounts, each of the Account Banks will assist the other parties to the relevant Account Bank Agreement(s) to effect an orderly transition of the banking arrangements documented in such Account Bank Agreement(s).

No termination of the appointment of the Transaction Account Bank, a Reserve Account Bank or the Custodian Bank will take effect:

- (i) where the appointment of the Transaction Account Bank is to be terminated, until a replacement financial institution or institutions (in each case, (x) appointed by the Issuer, (y) having itself (or through a guarantor of its obligations) the Transaction Account Bank Required Ratings and (z) being a person which holds all requisite licences or authorisations to perform the obligations of the Transaction Account Bank under the Korean Account Bank Agreement) have entered into an agreement in form and substance similar to the Korean Account Bank Agreement as applied to the Transaction Account Bank and the Transaction Account (including, for the avoidance of doubt, Transaction Account Bank Termination Events) or on such other terms as are acceptable to the Issuer and the Trustee;
- (ii) where the appointment of a Reserve Account Bank is to be terminated, until a replacement financial institution or institutions (in each case, (w) which has its jurisdiction of incorporation located outside

Korea, provided this sub-paragraph (w) only applies to the Reserve Account Bank appointed under the Hong Kong Account Bank Agreement, (x) appointed by the Issuer, (y) having itself (or through a guarantor of its obligations) the Reserve Account Bank Required Ratings and (z) being a person which holds all requisite licences or authorisations to perform the obligations of the outgoing Reserve Account Bank under the relevant Account Bank Agreement) have entered into an agreement in form and substance similar to such Account Bank Agreement as applied to the outgoing Reserve Account Bank and the relevant Cover Pool Cash Accounts held with it (including, for the avoidance of doubt, Reserve Account Bank Termination Events) or on such other terms as are acceptable to the Issuer and the Trustee;

- (iii) where the appointment of the Custodian Bank is to be terminated, until a replacement financial institution or institutions (in each case, (w) which has its jurisdiction of incorporation located outside Korea, (x) appointed by the Issuer, (y) having itself (or through a guarantor of its obligations) the Custodian Bank Required Ratings and (z) being a person which holds all requisite licences or authorisations to perform the obligations of the outgoing Custodian Bank under the Custodian Bank Agreement) have entered into an agreement in form and substance similar to the Custodian Bank Agreement as applied to the outgoing Custodian Bank and the Swap Securities Collateral Account(s) (including, for the avoidance of doubt, Custodian Bank Termination Events) or on such other terms as are acceptable to the Issuer and the Trustee; and
- (iv) in the case of the Korean Account Bank Agreement, in the case of voluntary termination by the Transaction Account Bank and/or the Reserve Account Bank appointed thereunder only, if the then current ratings of the Covered Bonds would be adversely affected thereby.

Other

None of the Transaction Account Bank, any of the Reserve Account Banks or the Custodian Bank are liable for a failure to carry out its obligations if it is unable to do so due to circumstances beyond its control.

The Korean Account Bank Agreement will be governed by Korean law, the Hong Kong Account Bank Agreement will be governed by Hong Kong law and the Custodian Bank Agreement will be governed by English law.

Swap Agreements

The Issuer will, in respect of each Series of Covered Bonds, enter into a Swap Agreement with a Swap Provider and the Trustee and enter into one or more Swaps in relation to such Series or Tranche (as applicable) of Covered Bonds at the time such Covered Bonds are issued, provided that the Issuer may agree with the relevant Swap Provider in respect of one or more Swap that no cash flow will be exchanged under the relevant Swap unless and until the Contingent Swap Effective Date has occurred. Such Swap(s) will be entered into to provide a hedge against certain currency risks in respect of amounts received by the Issuer under the Underlying Assets and amounts payable by the Issuer under the Covered Bonds of that Series.

Under the Swap(s) on the relevant Issue Date (other than in the case of a Contingent Swap), the Issuer will pay to the Swap Provider the net amount received by the Issuer in respect of the issue of the relevant Series or Tranche, as applicable, of Covered Bonds, and in return the Swap Provider will pay an amount equal to the KRW Equivalent of the applicable issue proceeds. Thereafter (subject, in the case of any Contingent Swap, to the occurrence of the Contingent Swap Effective Date), the Swap Provider will pay to the Issuer on each Interest Payment Date amounts equivalent to the amounts that would be payable by the Issuer in respect of interest and principal payable under the relevant Series or Tranche of Covered Bonds. In return, (subject, in the case of any Contingent Swap, to the occurrence of the Contingent Swap Effective Date) the Issuer will pay to the Swap Provider on each Interest Payment Date an amount in Won calculated by reference to the relevant interest rate determined for the relevant Interest Period in accordance with the Swap and the KRW Equivalent of any principal due in respect of the relevant Series or Tranche of Covered Bonds.

If an Extended Maturity Date is specified as applicable in the Pricing Supplement for a Series of Covered Bonds and the payment of the amount corresponding to the Final Redemption Amount or any part of it by the Issuer is deferred until the relevant Extended Maturity Date pursuant to Condition 5(b) (*Extension of maturity up to Extended Maturity Date*) of the Terms and Conditions of the Covered Bonds, and prior to the Maturity Date or any Interest Payment Date thereafter up to (and including) the relevant Extended Maturity Date, the Issuer notifies (pursuant to the terms of the relevant Swap) the relevant Swap Provider of the amount in Won to be paid

by the Issuer on such Maturity Date or Interest Payment Date (such amount being equal to the Final Redemption Amount or the relevant portion thereof elected to be paid by the Issuer or payable by the Issuer in accordance with the relevant priority of payments as set out in the Establishment Deed on such Maturity Date or Interest Payment Date in respect of the relevant Series or Tranche of Covered Bonds), the Swap Provider will pay the Issuer an amount in the currency of the Covered Bond converted from such Won amount using the applicable Swap Rate and the Issuer will pay such Won amount to the Swap Provider. Further, in the case of a Series of Covered Bonds for which the payment of the Final Redemption Amount or any part of it is deferred until the relevant Extended Maturity Date, the Issuer or the Swap Provider may be required to make a payment of swap extension charges determined by reference to the gains or losses expected to be realised by the Swap Provider in extending the Swap until the following Interest Payment Date.

However, such swap extension charges may only be paid after all amounts senior to such swap extension charges in the Cover Pool Priority of Payments (including principal and interest in respect of all Series of Covered Bonds) have been paid in full. Under the Swap Agreement, the Swap Provider will acknowledge and agree to be bound by the priority of payments and certain related provisions in the Establishment Deed.

Each Swap will terminate on the Maturity Date or, if an Extended Maturity Date is specified as applicable in the Pricing Supplement for a Series of Covered Bonds and the Issuer notifies the Swap Provider prior to the Maturity Date that the Issuer will be paying an amount less than the KRW Equivalent of the Final Redemption Amount (or if no such notice is received by the relevant time by the Swap Provider), on the final Interest Payment Date on which an amount representing the Final Redemption Amount is paid (but in any event not later than the Extended Maturity Date).

Under the terms of each Swap Agreement, in the event that the relevant rating of the Swap Provider is downgraded by a Rating Agency below the rating(s) specified in the relevant Swap Agreement (in accordance with the requirements of the Rating Agencies) for the Swap Provider, and, where applicable, as a result of the downgrade, the then current ratings of the Covered Bonds would or may, as applicable, be adversely affected, the Swap Provider will, in accordance with the relevant Swap Agreement, be required to take certain remedial measures which may include providing collateral for its obligations under the Swap Agreement, arranging for its obligations under the Swap Agreement to be transferred to an entity with the ratings required by the relevant Rating Agency, procuring another entity with the ratings required by the relevant Rating Agency to become co-obligor in respect of its obligations under the Swap Agreement, or taking such other action as it may agree with the relevant Rating Agency. A failure to take such steps will allow the Issuer to terminate the Swaps entered into under that Swap Agreement.

A Swap Agreement may also be terminated in certain other circumstances (each referred to as a “**Swap Early Termination Event**”), including, without limitation:

- (a) at the option of any party to the Swap Agreement, if there is a failure by the other party to pay any amounts due under such Swap Agreement and the applicable grace period has expired;
- (b) upon the occurrence of the insolvency of the relevant Swap Provider or any guarantor;
- (c) if the Covered Bond Issuance Plan has not been amended or supplemented to add a Swap to the Cover Pool or has been amended or supplemented to remove a Swap from the Cover Pool which remains outstanding without the prior written consent of the Swap Provider and, in each case, the relevant grace period has expired;
- (d) if the priority of the Swap Provider in the relevant priority of payments is adversely affected by changes to the Korean Covered Bond Laws or amendments (without the prior written consent of the Swap Provider) to the Cover Pool Priority of Payments or if the Swap Provider enters into a Swap with the Issuer in terms that do not include an acknowledgement and agreement of such Swap Provider to be bound by the priority of payment provisions set out in the Establishment Deed;
- (e) upon the Trustee serving an Acceleration Notice in respect of the relevant Series of Covered Bonds;
- (f) the merger of the Swap Provider without an assumption of the obligations under the relevant Swap Agreement;
- (g) in the event the Covered Bonds are redeemed in whole for tax reasons pursuant to the Conditions and the Swap Provider was notified of such redemption no later than three calendar days prior to the redemption; or
- (h) in the event the Covered Bonds are redeemed in whole or in part due to the exercise of a redemption option by the Issuer or holders of the Covered Bonds and the Swap Provider was notified of such redemption no

later than three calendar days prior to the redemption, provided that upon a redemption of the Covered Bonds in part the Swap Agreement will be partially terminated.

Upon the termination of a Swap Agreement, the Issuer or the relevant Swap Provider may be liable to make a termination payment to the other in accordance with the provisions of the relevant Swap Agreement. The amount of this termination payment will be calculated and made in the currency of the relevant Series of Covered Bonds.

Any termination payment made by the Swap Provider to the Issuer in respect of a Swap Agreement will first be used to the extent necessary (prior to the serving of an Acceleration Notice) to pay a replacement Swap Provider to enter into a replacement Swap with the Issuer, unless a replacement Swap Agreement has already been entered into by or on behalf of the Issuer. Any premium received by the Issuer from a replacement Swap Provider in respect of a replacement Swap will first be used to make any termination payment due and payable by the Issuer with respect to the Swap Agreement which is being replaced, unless such termination payment has already been made by or on behalf of the Issuer.

Any Swap Collateral Excluded Amounts will be paid to the Swap Provider directly and not via the Cover Pool Priorities of Payments.

If withholding taxes are imposed on payments made by any Swap Provider to the Issuer under a Swap Agreement, such Swap Provider will be obliged to gross up those payments. If withholding taxes are imposed on payments made by the Issuer to the Swap Provider under a Swap Agreement, the Issuer will not be obliged to gross up those payments.

In the event that the Covered Bonds are purchased by the Issuer or redeemed and/or cancelled in accordance with the Conditions, the Swap(s) in connection with such Covered Bonds will terminate or partially terminate, as the case may be.

The Swap Agreements are (or, as applicable, will be) and any non-contractual obligations arising out of or in respect of them are governed by and will be construed in accordance with English law.

CERTAIN INFORMATION REGARDING THE COVER POOL

The Mortgage Loans which will initially constitute the Underlying Assets in the Cover Pool will consist of Mortgage Loans originated by the Issuer. The types of Mortgage Loans, their key features and the origination, approval, underwriting and enforcement processes of the Issuer are summarised below. The features of the Mortgage Loans and these processes may change from time to time.

Origination of the Mortgage Loans

Introduction

The Mortgage Loans are originated through the Issuer's branch offices. New Mortgage Loans are accepted on the basis of a fixed set of underwriting standards and lending criteria. As of the date of this Offering Circular, almost all of the Mortgage Loans were with borrowers who held a current account with the Issuer, as all new borrowers that do not already have an existing current account are required to open a current account before being approved for a Mortgage Loan.

The approval process for most Mortgage Loans is largely automated, as interest and credit limits are both determined based on the Issuer's established credit systems. However, in certain situations, an underwriter may grant approval in respect of a Mortgage Loan which was automatically rejected by the Issuer's systems, as set out in further detail below.

Underwriting Process and Lending Criteria

Customer Information

To obtain a Mortgage Loan, prospective borrowers must complete an application form which includes details of the applicant's income, current employment details, bank account information, current mortgage information, if any, and certain other personal information. Prospective borrowers must also submit proof of their identity, for example by submitting a passport, driver's licence or certificate of residence, copies of which will be taken by the Issuer.

Household Loan Review System

The Issuer uses an automated credit rating management system known as the Household Loan Review System (the "**HLRS**") to evaluate all household loans, including the Mortgage Loans. Under the HLRS, loan applications undergo four layers of review (the credit review, the credit limit review, the collateral review and the debt service ratio review) before they are reviewed by a loan review officer for approval. However, among household loans subject to approval of the loan review officer, mortgage loans that fulfil certain eligibility requirements, such as the KB Property Index and compliance with regulatory ratios, can be reviewed by the Credit Scoring System (the "**CSS**"). The credit review calculates a credit rating based on customer information such as the customer's occupation, annual income, transaction activities with the Issuer and credit information provided by credit information agencies (the "**Credit Bureau Rating**"). The collateral review evaluates the mortgage property based on information from various sources, including the KB Property Index (an index prepared by Kookmin Bank), which uses internal and external surveys and research to value properties in Korea and is widely used in the Korean real estate industry, and then calculates the eligible limit through various regulatory ratios and debt servicing ability review.

Credit Evaluation of Customers

Credit evaluation is conducted for all applicants of Mortgage Loans. The CSS determines the Credit Bureau Rating through the Application Scoring System (the "**ASS**") if the customer is a new customer of the Issuer, or, if the customer is an existing customer of the Issuer, through the Behavioural Scoring System (the "**BSS**") and the ASS. The CSS has available various scorecards to use for evaluating a particular customer, and the scorecard which will be used by the CSS depends on both the intended purpose for which the Mortgage Loan will be used (e.g., property purchase, refinancing, home renovations, etc.) and the type of the proposed Mortgaged Property (e.g., apartment, house, etc.).

The ASS determines the credit rating of a new customer based on various factors, including (i) the customer's personal information such as existing ownership of housing, the customer's age, family, occupation and income, (ii) the customer's prior transactions with the Issuer, including the amount of any deposits the customer has with the Issuer, the delinquent history of the customer (based on the BSS score), the amount and manner of credit card usage of the customer and whether the customer deposits his salary into an account with the Issuer, and (iii) credit information provided to the Issuer by the Korea Credit Bureau or other domestic credit bureaus.

The BSS is a system used to review and monitor the credit of an existing customer with an outstanding loan with the Issuer. In reviewing and monitoring the credit of an existing customer, the BSS takes into consideration, amongst other factors, the existing customer's history in relation to delinquency, repayment, product information, intensity of transactions and transaction period.

Non-qualifying customers (that is, those customers who do not satisfy the lending criteria after system determination or customers who are offered an insufficient credit limit) may in certain cases obtain Mortgage Loans via exceptional approval by the underwriters based at the Issuer's headquarters, based on factors such as the credit quality of the customer and the quality and value of the Mortgaged Property, provided that the customer satisfies certain lending criteria.

Determination of Maximum Loan Amount

The maximum amount that the Issuer will lend under a Mortgage Loan is determined by a number of factors, including the Credit Bureau Rating, the value of the proposed Mortgaged Property and the DTI Ratio or debt servicing ability of the relevant customer (for example, the customer's net income and existing credit commitments).

Appraisal Value of Property

All Mortgaged Loans are subject to a satisfactory valuation of the proposed Mortgaged Property. The appraisal value of proposed Mortgaged Property is determined by the CRS. Staff will input the loan application amount, the maximum secured amount of any prior ranking claims, and the larger of the aggregate of any Jeonse Rights (as defined below) or Small Tenant's Claim Amounts (as defined below), and based on these variables the CRS will calculate the appraisal value in relation to the proposed Mortgaged Property. If the proposed Mortgaged Property's market value is not denoted in the CRS, the appraisal values specified in a report from a licenced realtor which is also an affiliate of the Issuer or from the Korea Appraisal Board can be adopted. In such cases, the Issuer will determine which alternative source shall be used to determine the relevant appraisal value.

In this section, "Jeonse Rights," also known as a *jeonse-kwon*, means a security interest that may be registered with the relevant real property registry, granted by a lessor to a lessee for the repayment of a lessee's key money deposit and which also allows the lessee to occupy, use and benefit from the leased premises until the later of (i) the date on which the lease term expires and (ii) the date the lessor returns such key money deposit to the lessee, and "Small Tenant's Claim Amount" means a tenant's right to receive a refund of certain portions of the key money deposit in priority over any other security holder, whereby the scope and standards relating to the tenants and the refundable amount are decided according to the Presidential Decree of the Residential Lease Protection Law.

Loan-to-value Limit

Each customer is only permitted to take out a maximum loan that falls within the loan-to-value limits imposed by the FSS.

Small Tenant Claim Amounts and Prior Ranking Claims

When determining the maximum loan amount in relation to a Mortgaged Property, the Issuer also takes into account the value of any Jeonse Rights held by a lessee, Small Tenant Claim Amounts and prior ranking claims and senior lien claims, and such amounts are deducted from the maximum loan amount.

Security

Each Mortgage Loan is secured by a first priority right or a second and sequentially lower priority right of mortgage which is duly registered at the real estate registry office. When a Mortgage is first presented for registration an entry to this effect is made in the real estate registry. The first entry in the real estate registry establishes priority over any subsequent claims, encumbrances and attachments in respect of the relevant property. The Issuer accepts in principle a second (and sequentially lower) Mortgage if the first entry of a Mortgage is made in the Issuer's name. However, the amount of any claims secured by a prior ranking security interest will be deducted from the appraisal value when determining the maximum loan amount. In certain limited circumstances, the Issuer accepts a second ranking right of mortgage where a first ranking right of mortgage has already been registered in the name of a third party.

Insurance

The Issuer generally requires borrowers to arrange for insurance in respect of the Mortgaged Property under the terms of the Mortgage Loan. However, in certain cases such insurance is not required, for example where the building is a high-rise apartment building which is already subject to mandatory insurance under Korean law, where the value of the Mortgaged Property resides in the land rather than the property itself, or where the outstanding balance under a Mortgage Loan is less than ₩50 million.

Description of MCI

The Issuer has adopted internal policies in accordance with the guidelines of the FSC and the FSS in relation to the calculation of the available loan amount for a borrower. The available loan amount is calculated by applying the relevant loan-to-value ratio to the appraisal value of a residential property. The maximum amount of refunds of key money deposits for small leases (“**Super-Priority Right for Small Leases**”) (which are statutorily accorded priority over any security interest in the relevant residential property) that can be established over the relevant residential property is deducted from the available loan amount even if no such Super-Priority Right for Small Leases has been established at the time of lending. As a consequence, an amount equal to the potential Super-Priority Right for Small Leases (the “**Maximum Super-Priority Amount**”) is not available for lending. The Issuer’s internal policies, however, permit the lending of such Maximum Super-Priority Amount in addition to the available loan amount if an amount equal to the Maximum Super-Priority Amount is covered by a credit insurance policy issued by an insurance company.

The Issuer entered into a master business agreement in connection with the operation of mortgage credit insurance (the “**Master MCI Agreement**”) with the Seoul Guarantee Insurance Company (the “**SGIC**”) on 1 November 2001 (and which may be amended or supplemented from time to time) to extend loans exceeding the available loan amount calculated by the loan-to-value ratio method by the Maximum Super-Priority Amount. If a borrower wishes to borrow in excess of the maximum available amount calculated by the loan-to-value ratio method, the Issuer will determine the excess loan amount (which will be within the Maximum Super-Priority Amount) and then submit to SGIC an application for credit insurance under the Master MCI Agreement for an amount equal to such excess amount (the “**MCI Loan Amount**”). SGIC will review the application and, if it meets all the criteria set out in the Master MCI Agreement (including those relating to the borrower’s income), issue the credit insurance policy for that particular loan. The Issuer will pay the insurance premium for each credit insurance policy issued by SGIC under the Master MCI Agreement. In such credit insurance policy, the MCI Loan Amount covered by such insurance (“**Insured Amount**”) will be specified. The Insured Amount will be set at an amount not exceeding 120% of the MCI Loan Amount.

Under the Master MCI Agreement, if: (i) the borrower fails to repay principal and interest on the loan on the relevant payment date specified in the relevant mortgage loan agreement; (ii) the obligations of the borrower are accelerated pursuant to such mortgage loan agreement; or (iii) the borrower fails to repay the loan on the maturity date (each, an “**Insured Event**”), the Issuer is required to make at least two demands on the borrower for the rectification of such breach and, if the borrower fails to rectify the breach, the Issuer should enforce the mortgage. If the Issuer cannot recover all amounts due under the mortgage loan in the judicial auction instituted to enforce the mortgage, SGIC will pay the insurance proceeds, up to the Insured Amount, for the portion of the principal of the MCI Loan Amount and the interest accrued thereon for a period of not more than one year which are not recovered in such judicial auction.

Determination of Interest Rate

The interest rate applicable to each Mortgage Loan is determined based on a number of factors including the cost of capital, the benchmark interest rate, the Customer Credit Rating and the loss-given-default (“**LGD**”) rate, which is generated using the CRS. For customers who provide a guarantor, insurance securities or other additional forms of collateral, the value of LGD generated from the CRS may be lower.

Acceptance and Verification of Customer Information

Before final acceptance of a Mortgage Loan by a customer, a check is performed to confirm that the customer has met all the pre-conditions stated in the Mortgage Loan offer. After acceptance, the final terms of the Mortgage Loan are sent to the Issuer’s Process Innovation Center for review of the Mortgage Loan application where the accuracy of the related application documents are also checked.

Mortgage Administration

Introduction

This section describes, amongst other things, the servicing procedures and practises of the Issuer.

The Issuer administers the Mortgage Loans from its retail and corporate branches, Process Innovation Center, Customer Care Center and Credit Management and Collection Department in accordance with its mortgage administration service procedures. These set out, amongst other things, the procedures for the calculation of interest and other amounts payable under the Mortgage Loans, the collections process in respect of Mortgage Loans in default, the maintenance of records in relation to the Mortgage Loans and communications with borrowers under the Mortgage Loans.

Arrears Management

If any amount due has not been received on the payment due date, the Issuer's collection staff are required, to the fullest extent permitted by applicable law, to take the following actions:

- If a Mortgage Loan is delinquent for one or more months, the Issuer's collection staff will: (a) call the borrower; (b) inform the borrower of the delinquency; (c) ask for an expected payment date; and (d) send a written request for payment notifying the delinquency and a warning of the scheduled default, by mail, to the relevant borrower; or
- If a Mortgage Loan is delinquent for two or more months, the Issuer's collection staff will: (a) call the borrower and give him or her a final notice that the Mortgage Loan is delinquent, (b) send notice of commencement of the public sale of the Mortgaged Property by content and delivery certified mail, and (c) begin the foreclosure proceedings in the Korean courts. If the relevant borrower cannot be contacted by phone, the Issuer's collection staff will: (i) visit the site of the Mortgaged Property (if the Issuer deems necessary), and (ii) begin the foreclosure proceedings.

Foreclosure

If enforcement action is required to be taken in connection with a Mortgage Loan, the Issuer's credit management department will take enforcement action as follows:

- making demands on the delinquent borrower or guarantor;
- terminating the relevant Mortgage Loan Agreement to be followed by enforcing the related mortgage and collateral security as soon as practicable; and
- initiating a foreclosure proceeding against the related mortgagor (including retaining legal counsel) and taking any other actions that are necessary for the foreclosure action.

As required by the Establishment Deed, the Issuer will arrange for enforcement proceeds in respect of Mortgage Loans in the Cover Pool to be paid into the Transaction Account within one Korean Business Day after the collection of such enforcement proceeds.

Under Korean law, the Issuer has the right to publicly auction the Mortgaged Property if the customer remains in breach of its obligations after being given written notice that it is in default and being given 15 days to comply with the Issuer's demand for payment, and alternative arrangements are not made.

To commence a judicial auction in Korea, the petition for auction (*Gyongmae Shinchung*) must be filed with the relevant court having jurisdiction over the district in which the real estate is located. The petition for auction must set forth supporting facts and grounds for requesting an auction, and must be accompanied by various documents including a copy of the mortgage agreement, a certified copy of the court register relevant to the subject property and a registration tax payment certificate.

Once a petition for auction has been filed, the court will examine the petition and the supporting documents and will issue its order to commence the auction (usually within two to three days of the petition). Typically, within seven days, the court order for auction is then entered in the *Deungki-Bu* (real estate registry) of the subject property.

The first auction date is generally set approximately five to six months from the date of petition filing. In the absence of any objection filed by the mortgagor or any other interested party, the auction will take place on the date set by the court. On the day of the auction, bidders must deposit 10% of the minimum price set by the court with the court unless the court decides otherwise. Distribution of auction proceeds will take place approximately 70 to 80 days after the auction date. However, it is not common that the property is sold at a first auction, thus necessitating subsequent auctions. A subsequent auction date is set for a date approximately one month following the first auction date. Each time an auction closes without a successful bid, the minimum price is lowered by 20% to 30%.

There are no restrictions preventing the mortgagee of a property to be auctioned from bidding in the auction. A mortgagee may decide to purchase such property if the minimum auction price falls below a certain level. If a mortgagee is selected as the successful bidder, then such mortgagee may off-set its claim amount against its bidding price. However, the mortgagee purchaser must still pay in cash the amount sufficient to cover the senior claims and statutory liens having priority over its claim.

Fraud Desk

All banks in Korea have a working relationship with respect to mortgage loan fraud through the Korean Association of Banks. A national fraud desk has been established through which all the banks notify each other of possible fraud cases. A fraud desk has been established for all mortgage loans. All known fraud cases are registered in an internal and external verification system that identifies fraudulent customers. Each new Mortgage Loan application is automatically run through this register. Additionally, new names added to the register are automatically cross-checked within the existing Mortgage Loans.

The Issuer actively manages mortgage fraud by giving anti-fraud presentations to all parties involved in the origination process (that is, to different departments within the Issuer). In addition, a fraud site has been created on the intranet within the Issuer, including a checklist of indicators for fraud. Employees are well trained on the different aspects of possible fraud. All suspicious applications are screened and, if necessary, sent to the special fraud desk.

In case of the detection of fraud in respect of an existing Mortgage Loan, the Issuer's policy is to accelerate the Mortgage Loan concerned and report the customer to the police. The official reporting route of this procedure is undertaken in close cooperation with the Issuer's Information Security Department.

SUMMARY OF KOREAN LEGISLATION REGARDING COVERED BONDS

The Korean Covered Bond Act

As of the date of this Offering Circular, the main legislation which governs covered bonds issued in Korea comprises the Korean Covered Bond Act and the related Enforcement Decree, which came into legal effect on 15 April 2014 (as amended from time to time), and the related Regulation, which came into effect on 23 April 2014 (as amended from time to time).

Certain Korean financial institutions that satisfy the conditions set forth under Article 2 and Article 4 of the Korean Covered Bond Act (“Eligible Issuers” and each Eligible Issuer that issues Covered Bonds, a “**Covered Bond Issuer**”) may issue covered bonds.

The holders of covered bonds (and also holders of certain other claims incurred in relation to the specific covered bonds) have dual recourse in respect of the covered bond by having an exclusive and prioritised right of claim, on a *pari passu* basis between themselves, over the cover pool while they reserve a right of payment from other assets of a Covered Bond Issuer.

Issuance Limit

The Korean Covered Bond Act prescribes that Eligible Issuers may issue covered bonds up to the ceiling set by the Enforcement Decree which shall not exceed 8% of such Eligible Issuers’ total assets as of the end of the fiscal year immediately preceding the scheduled date of issuance. The current ceiling set by the Enforcement Decree is 4% of a Covered Bond Issuer’s total assets as of the end of the fiscal year immediately preceding the scheduled date of issuance. The FSC reserves the right to restrict this further to 2% of a Covered Bond Issuer’s total assets, taking into consideration various factors, such as collateralisation ratio and financial conditions of a Covered Bond Issuer, including its liquidity position.

Registration of the Covered Bond Issuance Plan

A Covered Bond Issuer must register the Covered Bond Issuance Plan with the FSC. A Covered Bond Issuer must also register amendments to the Covered Bond Issuance Plan or matters concerning the cover pool, while minor changes shall be reported to the FSC within seven days from the date of such change. The Covered Bond Issuance Plan should include (i) the terms and conditions of the covered bonds, (ii) qualification requirements of a Covered Bond Issuer pursuant to the Korean Covered Bond Act such as equity capital, balance sheet, etc., (iii) the details of the cover pool, (iv) total valuation amount and details of such valuation of the cover pool, (v) the ratio of aggregate outstanding amount of the covered bonds (excluding any redeemed amount) to the cover pool to be maintained, (vi) details of the asset monitor (as defined in “—*The Asset Monitor*” below), and (vii) information relating to protection of debtors, details of programme issuance plan of the covered bonds, if relevant, funding plans for redemption of the covered bonds and other matters relating to issuance, distribution and redemption of the covered bonds as prescribed by the FSC.

Statutory Priority Right of Payment and Bankruptcy Remoteness

Article 12 of the Korean Covered Bond Act states that the cover pool assets shall not be subject to insolvency proceedings with respect to a Covered Bond Issuer and that in case a Covered Bond Issuer is declared bankrupt or a rehabilitation proceeding is commenced with respect to a Covered Bond Issuer, the cover pool of a Covered Bond Issuer shall not form part of the bankruptcy estate of a Covered Bond Issuer or the property that the administrator of the rehabilitation proceeding is entitled to manage and dispose of. In addition, if a corporate restructuring administrative proceeding is commenced with respect to a Covered Bond Issuer, the cover pool shall not comprise assets subject to such administration.

Further, the cover pool assets shall not be subject to compulsory execution (other than that by the Priority Payment Right Holders in accordance with Article 13 of the Korean Covered Bond Act), preservative measures, stay orders and general prohibition order under the Debtor Rehabilitation and Bankruptcy Act of Korea.

A notice to the underlying obligors is not required in order for the investors to be granted a statutory priority right of payment against the cover pool, and it would not be necessary to register the inclusion of the mortgage loans in the cover pool with the courts if the Covered Bond Issuance Plan was registered with the FSC.

Article 13 of the Korean Covered Bond Act states that the Priority Payment Right Holders shall have a priority right of payment on the registered cover pool over any third parties or creditors of a Covered Bond Issuer.

If the principal and interest of the covered bonds are not fully repaid from the cover pool, the investors have the right to payment from other assets of a Covered Bond Issuer in addition to the cover pool pursuant to Article 14 of the Korean Covered Bond Act.

Cover Pool—Composition of Assets and Eligibility Criteria

Article 5 of the Korean Covered Bond Act stipulates that the cover pool shall comprise (1) the Underlying Assets, (2) the Liquid Assets and (3) Other Assets, and the Eligibility Criteria for the cover pool is set forth as following.

“Underlying Assets” shall include (i) first priority residential mortgage loans with a loan-to-value ratio equal to or lower than 70%, and obligors of which are not subject to insolvency proceedings, (ii) loan receivables against the Government, a local government of Korea or a special statutory corporation of Korea, (iii) Korean treasury bonds, municipal bonds or bonds issued by a special statutory corporation, (iv) mortgage loans secured by ships or aircraft with a loan-to-value ratio equal to or lower than 70% and insured for an amount in excess of a prescribed minimum level (which is currently 110% of the sum of (a) the aggregate outstanding balance of the relevant loan and (b) any other outstanding debt of a Covered Bond Issuer that are at least *pari passu* with such loan), and (v) asset backed securities issued under the ABS Act, covered bonds issued by Korea Housing Finance Corporation and residential mortgage backed securities issued pursuant to the Korea Housing Finance Corporation Act where the underlying assets are residential mortgage loans which satisfy the criteria set out in (i) above.

The Regulation sets out the following restrictions on the residential mortgage loans which shall comprise the Underlying Assets:

- at least 20% must have a DTI Ratio equal to or lower than 70%;
- at least 30% must bear fixed interest rate; and
- residential mortgage loans, provided that, not more than 10% must be loans of which 50% or more of their outstanding principal balance may be set off against a Covered Bond Issuer. The set off will apply mainly to deposits but will also include any debt obligations of a Covered Bond Issuer if the borrower holds such debt directly.

“Liquid Assets” shall comprise (a) cash (excluding cash collected or acquired from the Underlying Assets and the Liquid Assets), (b) certificates of deposit with a term of no longer than 100 days issued by domestic financial institutions other than a Covered Bond Issuer, and (c) assets such as (x) bonds issued by a foreign government rated at least ‘AA-’ or above by a credit rating agency recognised by the FSS, which are capable of being liquidated within three months, (y) financial instruments issued by banks or securities companies rated ‘A’ or above by an internationally recognised credit rating agency whose nature and maturity are comparable to those described in (b), which are capable of being liquidated within three months and (z) deposits and term deposits at either domestic or foreign financial institutions with a term of no longer than three months. The aggregate value of the Liquid Assets shall not exceed 10% of the total value of the cover pool.

“Other Assets” shall comprise collections and other property rights (including, without limitation, any interest, income or distributions) acquired from the Underlying Assets and the Liquid Assets and claims and security interest related thereto acquired from derivatives transactions to hedge foreign exchange rate or interest rate risks and other risks associated with the cover pool pursuant to the Covered Bond Issuance Plan. The accounts where such collections and other property rights are held will also form part of Other Assets. Collateral provided by the swap provider may form part of the cover pool only if so stipulated in the Covered Bond Issuance Plan.

Valuations

Pursuant to the Enforcement Decree, valuation of the assets comprising the cover pool is carried out by reference to the closing market price on the relevant day on the relevant securities exchange. Where no reliable market prices are available on the relevant securities exchange on the relevant day, including where no market price is available on the relevant securities exchange in respect of the relevant asset (such as Mortgage Loans), the book value calculated in accordance with applicable Korean accounting principles, the par value, the purchase price, the transaction price and the price provided by an entity which satisfies statutory requirements (e.g., debt rating companies, accounting firms, credit rating agencies, valuation companies and underwriting companies), in each case in respect of the relevant asset type, together with the prevailing exchange rate at the time of valuation, shall

be taken into account by the Covered Bond Issuer and/or the asset monitor in determining the fair value of each type of asset comprising the cover pool. The Issuer shall carry out the valuation and such valuation shall be verified by the asset monitor, but the book value shall be deemed to be the market price if valuation cannot be performed. Where a Covered Bond Issuer has entered into derivative transactions for the purpose of hedging exposure to movements in foreign currency exchange rates or interest rates, the exchange rates or interest rates as specified in such derivative transactions themselves shall be used for valuation purposes. Non-eligible assets and claims acquired from derivative transactions themselves shall be valued at zero.

Management of the Cover Pool and Required Collateralisation Ratio

A Covered Bond Issuer should separately manage the assets included in the cover pool from its other assets on the basis of the applicable Covered Bond Issuance Plan and failure to do so may result in criminal sanctions. The books for the cover pool must also be separately maintained. Cash or other Liquid Assets in the cover pool may be deposited in a segregated account opened with a Covered Bond Issuer or with another financial institution which satisfies the requirements under the Korean Covered Bond Act.

A Covered Bond Issuer is required to maintain a statutory collateralisation ratio and a contractual collateralisation ratio while its covered bonds remain outstanding. Article 5 of the Korean Covered Bond Act stipulates that the total value of the cover pool shall be equal to the Required Collateralisation Ratio. In addition, a Covered Bond Issuer is required to specify in the Covered Bond Issuance Plan an asset coverage ratio it agrees to maintain for the term of the covered bond (*Dam-bo-yu-ji-bi-yul* in Korean) (the “**Asset Coverage Ratio**”). If the Asset Coverage Ratio is not satisfied or if the Eligibility Criteria is breached, a Covered Bond Issuer shall add or substitute Underlying Assets or Liquid Assets without delay in order to cause the cover pool to satisfy such requirements.

Risk Management and Disclosure

A Covered Bond Issuer is required to establish and monitor separate risk management standards and procedures relating to the issuance and redemption of the covered bonds at least on a quarterly basis. A Covered Bond Issuer is also obligated to disclose on its website on a quarterly basis the results of such risk management monitoring, the report prepared by the asset monitor and assessment of whether the obligor of mortgage loans benefits from the issuance of the covered bond. The FSC may request data concerning business or properties of a Covered Bond Issuer, its administrator and the asset monitor, or investigate such business and properties if necessary for the purposes of protecting the investors.

The Asset Monitor

A Covered Bond Issuer is required to appoint a cover pool monitor (the “**asset monitor**”) with the approval of the FSC in order to monitor independently the composition and balance of the cover pool.

The asset monitor shall be, either, (i) a person who qualifies as a bond administrator under the Korean Commercial Code, (ii) the Korea Housing Finance Corporation (excluding where the Korea Housing Finance Corporation is itself a Covered Bond Issuer), or (iii) a corporation with equity capital of at least ₩1 billion that meets the staffing requirements as set forth in Article 9 of the Korean Covered Bond Act.

The asset monitor’s duties are prescribed under Article 11 of the Korean Covered Bond Act and include the following:

- conducting accounting audit of the cover pool;
- due diligence/evaluating compliance with the Eligibility Criteria and Asset Coverage Ratio;
- monitoring a Covered Bond Issuer’s conformity to the Covered Bond Issuance Plan and relevant laws;
- monitoring whether the priority rights of the investors are infringed by the manner in which a Covered Bond Issuer manages the cover pool;
- providing instructions to a Covered Bond Issuer if it engages in any inappropriate practises;
- supervising and directing an administrator if an administrator has been appointed; and
- exercising any and all legal rights for the enforcement of the priority claims as set forth under Article 13 of the Korean Covered Bond Act.

The asset monitor is obligated to prepare a report on the performance of its duties and submit such report to the FSC within 30 days of the end of each quarter. The report should be provided to a Covered Bond Issuer and, upon request, to the investors and other parties, who have a priority right of payment from the cover pool.

Enforcement of the Collateral

So long as the cover pool is not disposed of to a third party, legal ownership over the cover pool will remain with a Covered Bond Issuer. Enforcement over the cover pool may be conducted in accordance with the method of disposal as stipulated in the Covered Bond Issuance Plan including by private sale of the cover pool if such method of enforcement has been contractually agreed upon. In other words, when liquidating the cover pool, the court proceedings relating to the enforcement of security interest would not apply.

The Korean Covered Bond Act stipulates that the method of disposal of the cover pool should be clearly stated in the Covered Bond Issuance Plan. The asset monitor could be given discretion to arrange a private sale or conduct a public auction (involving public announcement and sale by way of inviting purchasers to bid) or any other reasonable method at its discretion.

Set-off Risk

An underlying obligor of any mortgage loan that has a deposit account with a Covered Bond Issuer will be able to set off its deposit claim arising from such deposit account against its obligation under such mortgage loan prior to the notice to, or consent from, the underlying obligor regarding the registration of the cover pool with the FSC and the fact concerning the asset monitor's right to dispose of the cover pool against such mortgage loan that has been included in the cover pool.

Pursuant to Article 15(1) of the Korean Covered Bond Act, a Covered Bond Issuer or the asset monitor may not claim the registration of the cover pool with the FSC and the asset monitor's right to dispose the cover pool against the debtor of a claim in the cover pool unless it has notified the registration of the cover pool with the FSC and the asset monitor's right to dispose the cover pool against such mortgage loan that has been included in the cover pool to such debtor or such debtor has given its consent. Notice to, or consent from relevant debtors may only be given or obtained where an event set out in Article 13(3) of the Korean Covered Bond Act has occurred. The events listed under Article 13(3) of the Korean Covered Bond Act are as follows:

- where a Covered Bond Issuer fails to pay in whole or in part the claim of the Priority Payment Right Holder when due;
- where the cause of disposal of the registered cover pool has occurred; or
- where the claim of the Priority Payment Right Holder has been accelerated.

Set-off against the bank would not be affected by the fact that the deposit made by the debtor with the relevant bank is subject to deposit insurance provided by the KDIC. As the deposit insurance payment to be paid by the KDIC is calculated by deducting any debts (other than guarantee debts) owed by the depositor to the bank from the deposit amount, the insurance payments due from KDIC will be an amount which is net of the amounts outstanding under the loan.

OVERVIEW OF THE KOREAN FINANCIAL SECTOR

The Financial System

Structure of the Financial Sector

Korea's financial sector includes the following categories of financial institutions:

- The Bank of Korea;
- banking institutions;
- non-bank financial institutions; and
- other financial entities, including:
 - financial investment companies;
 - credit guarantee institutions;
 - venture capital companies; and
 - miscellaneous others.

To increase transparency in financial transactions and enhance the integrity and efficiency of the financial markets, Korean law requires that financial institutions confirm that their clients use their real names when transacting business. To ease the liquidity crisis, the Government altered the real-name financial transactions system during 1998, to allow the sale or deposit of foreign currencies through domestic financial institutions and the purchase of certain bonds, including Government bonds, without identification. The Government also strengthened confidentiality protection for private financial transactions.

In July 2007, the Korean National Assembly passed FSCMA, under which various industry-based capital markets regulatory systems then in place were consolidated into a single regulatory system. The FSCMA, which became effective in February 2009, expands the scope of permitted investment-related financial products and activities through expansive definitions of financial instruments and function-based regulations that allow financial investment companies to offer a wider range of financial services, as well as strengthening investor protection and disclosure requirements. The enforcement decree of the FSCMA classifies the financial investment companies into a total of 90 categories depending on the types of (i) financial investment services, (ii) financial investment products, and (iii) investors.

Prior to the effective date of the FSCMA, separate laws regulated various types of financial institutions depending on the type of the financial institution (for example, securities companies, futures companies, trust business companies and asset management companies) and subjected financial institutions to different licencing and ongoing regulatory requirements (for example, under the Securities and Exchange Act, the Futures Business Act and the Indirect Investment Asset Management Business Act). By applying one uniform set of rules to financial businesses having the same economic function, the FSCMA attempts to improve and address issues caused by the previous regulatory system under which the same economic function relating to capital markets-related business were governed by multiple regulations. To this end, the FSCMA categorises capital markets-related businesses into six different functions, as follows:

- investment dealing (trading and underwriting of financial investment products);
- investment brokerage (brokerage of financial investment products);
- collective investment (establishment of collective investment schemes and the management thereof);
- investment advice;
- discretionary investment management; and
- trusts (together with the five businesses set forth above, “**Financial Investment Businesses**”).

Accordingly, all financial businesses relating to financial investment products are reclassified as one or more of the Financial Investment Businesses described above, and financial institutions are subject to the regulations applicable to their relevant Financial Investment Businesses, irrespective of what type of financial institution it is. For example, under the FSCMA, derivative businesses conducted by securities companies and futures companies will be subject to the same regulations under the FSCMA, at least in principle.

The banking business and the insurance business are not subject to the FSCMA and will continue to be regulated under separate laws; provided, however, that they are subject to the FSCMA if their activities involve any Financial Investment Businesses requiring a licence based on the FSCMA.

Banking Industry

The banking industry comprises commercial banks and specialised banks. Commercial banks serve the general public and corporate sectors. They include nationwide banks, regional banks and branches of foreign banks. Regional banks provide services similar to nationwide banks, but operate in a geographically restricted region. Branches of foreign banks have operated in Korea since 1967 but provide a relatively small proportion of the country's banking services. As of 31 December 2023, there were 7 nationwide banks, 5 regional banks, 3 internet banks and 34 foreign banks with branches operating in the Republic.

Specialised banks meet the needs of specific sectors of the economy in accordance with Government policy; they are organised under, or chartered by, special laws. Specialised banks include:

- The Korea Development Bank;
- The Export-Import Bank of Korea;
- The Industrial Bank of Korea;
- NH Bank (which was established by a spin-off of the credit and banking unit from the National Agricultural Cooperative Federation in March 2012); and
- The National Federation of Fisheries Cooperatives.

The economic difficulties in 1997 and 1998 caused an increase in Korean banks' non-performing assets and a decline in capital adequacy ratios of Korean banks. From 1998 through 2002, the FSC amended banking regulations several times to adopt more stringent criteria for non-performing assets that more closely followed international standards.

The following table sets out the total loans (including loans in Won and loans in foreign currencies) and non-performing assets of Korean banks.

	Total Loans	Substandard or Below Loans	Percentage of Total
	<i>(In trillions of Won)</i>		<i>(%)</i>
31 December 2019	1,980.6	15.3	0.8
31 December 2020	2,171.7	14.0	0.6
31 December 2021	2,371.9	11.8	0.5
31 December 2022	2,532.4	10.1	0.4

Source: FSS

In 2019, these banks posted an aggregate net profit of ₩14.2 trillion, compared to an aggregate net profit of ₩14.6 trillion in 2018, primarily due to an increase in non-operating expenses. In 2020, these banks posted an aggregate net profit of ₩14.2 trillion, which was flat from 2019. In 2021, these banks posted an aggregate net profit of ₩17.5 trillion, compared to an aggregate net profit of ₩14.2 trillion in 2020, primarily due to decreased interest expenses and other operating expenses. In 2022, these banks posted an aggregate net profit of ₩13.1 trillion, compared to an aggregate net profit of ₩17.5 trillion in 2021, primarily due to increased interest expenses and other operating expenses.

Non-Bank Financial Institutions

Non-bank financial institutions include:

- savings institutions, including trust accounts of banks, mutual savings banks, credit unions, mutual credit facilities, community credit cooperatives and postal savings;
- life insurance institutions; and
- credit card companies.

As of 31 December 2023, 79 mutual savings banks, 2 life insurance institutions, which include joint venture life insurance institutions and wholly-owned subsidiaries of foreign life insurance companies, and 8 credit card companies operated in the Republic of Korea.

Money Markets

In Korea, the money markets consist of the call market and markets for a wide range of other short-term financial instruments, including treasury bills, monetary stabilisation bonds, negotiable certificates of deposits, repurchase agreements and commercial paper.

Securities Markets

On 27 January 2005, the Korea Exchange was established pursuant to the now repealed Korea Securities and Futures Exchange Act by consolidating the Korea Stock Exchange, the Korea Futures Exchange, the KOSDAQ Stock Market, Inc. (the “**KOSDAQ**”) and the KOSDAQ Committee of the Korea Securities Dealers Association, which had formerly managed the KOSDAQ. There are four different markets operated by the Korea Exchange: the KRX KOSPI Market, the KRX KOSDAQ Market, the KRX KONEX Market and the KRX Derivatives Market. The Korea Exchange has three trading floors located in Seoul, one for the KRX KOSPI Market, one for the KRX KONEX Market and one for the KRX KOSDAQ Market, and one trading floor in Busan for the KRX Derivatives Market.

The Korea Exchange is a joint stock company with limited liability, the shares of which are held by (i) financial investment companies that were formerly members of the Korea Futures Exchange or the Korea Stock Exchange and (ii) the stockholders of the KOSDAQ. Currently, the Korea Exchange is the only stock exchange in Korea and is operated by membership, having as its members Korean financial investment companies and some Korean branches of foreign financial investment companies.

The Korea Exchange publishes the KOSPI every 10 seconds, which is an index of all equity securities listed on the Korea Exchange. The KOSPI is computed using the aggregate value method, whereby the market capitalisations of all listed companies are aggregated, subject to certain adjustments, and this aggregate is expressed as a percentage of the aggregate market capitalisation of all listed companies as of the base date, 4 January 1980.

The following table shows the value of the KOSPI as of the dates indicated:

31 January 2019	2,204.9
28 February 2019	2,195.4
29 March 2019	2,140.7
30 April 2019	2,203.6
31 May 2019	2,041.7
28 June 2019	2,130.6
31 July 2019	2,024.6
30 August 2019	1,967.8
30 September 2019	2,063.1
31 October 2019	2,083.5
29 November 2019	2,088.0
30 December 2019	2,197.7
31 January 2020	2,119.0
28 February 2020	1,987.0
31 March 2020	1,754.6
29 April 2020	1,947.6
29 May 2020	2,029.6
30 June 2020	2,108.3
31 July 2020	2,249.4
31 August 2020	2,326.2
29 September 2020	2,327.9
30 October 2020	2,267.2
30 November 2020	2,591.3
30 December 2020	2,873.5
29 January 2021	2,976.2

26 February 2021	3,013.0
31 March 2021	3,061.4
30 April 2021	3,147.9
31 May 2021	3,203.9
30 June 2021	3,296.7
30 July 2021	3,202.3
31 August 2021	3,199.3
30 September 2021	3,068.8
29 October 2021	2,970.7
30 November 2021	2,839.0
30 December 2021	2,977.7
28 January 2022	2,663.3
28 February 2022	2,699.2
31 March 2022	2,757.7
29 April 2022	2,695.1
31 May 2022	2,685.9
30 June 2022	2,332.6
29 July 2022	2,451.5
31 August 2022	2,472.1
30 September 2022	2,155.5
31 October 2022	2,293.6
30 November 2022	2,472.5
29 December 2022	2,236.4
31 January 2023	2,425.1
28 February 2023	2,412.9
31 March 2023	2,476.9
28 April 2023	2,501.5
31 May 2023	2,577.1
30 June 2023	2,564.3
31 July 2023	2,632.6
31 August 2023	2,556.3
27 September 2023	2,465.1
31 October 2023	2,278.0
30 November 2023	2,535.3
28 December 2023	2,655.3
31 January 2024	2,497.1
29 February 2024	2,642.4
29 March 2024	2,746.6
30 April 2024	2,692.1
31 May 2024	2,636.5
28 June 2024	2,797.8
31 July 2024	2,770.7
30 August 2024	2,674.3
30 September 2024	2,593.3
31 October 2024	2,556.2
29 November 2024	2,455.9
30 December 2024	2,399.5

Source: KRX

The KOSPI has experienced various periods with notable fluctuations due to changes in macroeconomic conditions, such as those resulting from the Asian Financial Crisis beginning in 1997 and the Global Financial Crisis beginning in late 2007. During the first quarter of 2020, there was a significant overall decline in the stock prices of Korean companies due to deteriorating market conditions domestically and abroad caused by the COVID-19 pandemic. On 19 March 2020, the index dropped to 1,457.6, hitting the lowest point in nearly 11 years. However, there was a strong rebound in the third quarter of 2020 due to increases in foreign investment resulting from the depreciation of the U.S. dollar against the Won and other factors. Such a rebounding trend lasted until 6 July 2021, on which day the index reached a record high of 3,305.2. Since then, the index has declined as the Korean economy has come under pressure from rising interest rates globally to combat inflation and increased uncertainty in the global economy stemming from geopolitical conflicts, such as the war between Ukraine and Russia and the escalation of hostilities in the Middle East following the Israel-Hamas war. As of

6 January 2025, the index closed at 2,488.6. The performance of KOSPI remains subject to a number of risks relating to the uncertainty of global economic prospects and other factors including the risks to the Korean economy described in *“Investment Considerations —Risks Relating to Korea —Adverse developments in Korea may have adverse effects on us.”*

Supervision System

The Office of Bank Supervision, the Securities Supervisory Board, the Insurance Supervisory Board and all other financial sector regulatory bodies merged in January 1999 to form the FSC. The FSC acts as the executive body over the FSS. The FSC reports to, but operates independently of, the Prime Minister’s office.

The MOEF focuses on financial policy and foreign currency regulations. The Bank of Korea manages monetary policy focusing on price stabilisation.

Deposit Insurance System

Korea’s deposit insurance system insures amounts on deposit with banks, non-bank financial institutions, securities companies and life insurance companies.

Since January 2001, deposits at any single financial institution are insured only up to ₩50 million per person regardless of the amount deposited. However, in December 2024, the Korean National Assembly passed an amendment to the Depositor Protection Act to increase the maximum limit from ₩50 million to ₩100 million. Once the amended act takes effect, the depositor protection limit is expected to increase to ₩100 million.

The Government recently excluded certain deposits, such as repurchase agreements, from the insurance scheme, expanded the definition of unsound financial institutions to which the insurance scheme would apply and gradually increased the insurance premiums payable by insured financial institutions.

Monetary Policy

The Bank of Korea

The Bank of Korea was established in 1950 as Korea’s central bank and the country’s sole currency-issuing bank. A seven-member Monetary Policy Committee (“MPC”), chaired by the Governor of the Bank of Korea, formulates and controls monetary and credit policies.

Inflation targeting is the basic system of operation for Korean monetary policy. The consumer price index is used as the Bank of Korea’s target indicator. To achieve its established inflation target, the MPC of the Bank of Korea determines and announces the “Bank of Korea Base Rate,” the reference rate applied in transactions such as repurchase agreements between the Bank of Korea and its financial institution counterparts. The Bank of Korea uses open market operations as its primary instrument to keep the call rate in line with the MPC’s target rate. In addition, the Bank of Korea is able to establish policies regarding its lending to banks in Korea and their reserve requirements.

Interest Rates

In July 2007, the Bank of Korea raised the policy rate to 4.75% from 4.5%, and raised it further to 5.0% in August 2007. The rationale for this change was the concern that the ample market liquidity might put upside pressure on inflation in the medium to long term as the economic upswing continued. In August 2008, the Bank of Korea raised the policy rate to 5.25% from 5.0%, taking the view that inflation in consumer prices had picked up its pace, due to the direct and indirect effects of high oil prices, at a time when domestic economic activity had slackened. In October 2008, the Bank of Korea cut its policy rate to 5.0% from 5.25%, and continued to lower it further to 4.25% in October 2008, 4.0% in November 2008, 3.0% in December 2008, 2.5% in January 2009 and 2.0% in February 2009, in order to address financial market instability and to help combat the slowdown of the domestic economy. In July 2010, the Bank of Korea raised the policy rate to 2.25% from 2.0%, which was further raised to 2.5% in November 2010, in response to signs of inflationary pressures and the continued growth of the domestic economy. In January 2011, the Bank of Korea raised the policy rate to 2.75%, which was further increased to 3.0% in March 2011 and to 3.25% in June 2011, in response to inflationary pressures driven mainly by rises in the prices of petroleum products and farm products. The Bank of Korea lowered its policy rate to 3.0% from 3.25% in July 2012, which was further lowered to 2.75% in October 2012.

and to 2.5% in May 2013, in order to address the sluggishness of the global and domestic economy. The interest rate was further reduced to 2.25% in August 2014, 2.00% in October 2014, 1.75% in March 2015, 1.50% in June 2015 and 1.25% in June 2016 due to continual weak growth in the domestic economy. The Bank of Korea's policy rate was lowered from 1.25% to 0.75% in March 2020, and such rate was further lowered to 0.50% in May 2020. In August 2021, the Bank of Korea bumped up its policy rate to 0.75%, becoming the first central bank in Asia to lift its policy rate since the onset of the COVID-19 pandemic. The Bank of Korea further raised its policy rate to 1.00% in November 2021, then to 1.25% in January 2022, back to the pre-pandemic levels, and most recently, in response to rising levels of household debt and inflation in Korea as well as globally, the Bank of Korea again raised the base interest rate to 1.50% in April 2022, 1.75% in May 2022, 2.25% in July 2022, 2.50% in August 2022, 3.00% in October 2022, 3.25% in November 2022 and 3.50% in January 2023 in an effort to address rising consumer prices. On 22 February 2024, the Bank of Korea once again decided to maintain the base interest rate at 3.50%, but it has cut the base rate to 3.25% in October 2024 and further to 3.00% in November 2024 as inflation in Korea showed signs of stabilisation.

With the deregulation of interest rates on banks' demand deposits on 2 February 2004, the Bank of Korea completed the interest rate deregulation based upon the "Four-Stage Interest Rate Liberalisation Plan" announced in 1991. The prohibition on the payment of interest on ordinary checking accounts was, however, maintained.

Money Supply

The following table shows the volume of Korea's money supply:

	31 December					
	2018	2019	2020	2021	2022	2023
	<i>(In billions of Won, except for percentages)</i>					
Money Supply (M1) ⁽¹⁾	865,852	952,923	1,197,829	1,372,337	1,236,983	1,246,196
Quasi-money ⁽²⁾	1,834,511	1,960,687	2,002,007	2,241,351	2,521,253	2,658,357
Money Supply (M2) ⁽³⁾	2,700,362	2,913,610	3,199,836	3,613,688	3,758,236	3,904,553
Percentage Increase Over Previous						
Year	6.7%	7.9%	9.8%	12.9%	4.0%	3.9%

Source: The Bank of Korea.

(1) Consists of currency in circulation and demand and instant access savings deposits at financial institutions.

(2) Includes time and instalment savings deposits, marketable instruments, yield-based dividend instruments and financial debentures, excluding financial instruments with a maturity of more than two years.

(3) Money Supply (M2) is the sum of Money Supply (M1) and quasi-money.

Exchange Controls

Authorised foreign exchange banks, as registered with the MOEF, handle foreign exchange transactions. The Ministry has designated other types of financial institutions to handle foreign exchange transactions on a limited basis.

THE KOREAN RESIDENTIAL MORTGAGE INDUSTRY

The information and statistics set out in this section are derived from various public and private sources. This information has not been prepared or independently verified by the Issuer, the Arranger or the Dealers or any of their respective affiliates or advisers.

Introduction

The Korean economy has steadily grown during the past several years. Korea's gross domestic product ("GDP") increased from ₩1,205 trillion as of 31 December 2009 to ₩2,243 trillion as of 31 December 2023. The population in Korea is approximately 52 million. Korea is the most densely populated country among OECD countries (515 people per square kilometre of land area), with mountains and forest covering 66% of the land. The population in Korea is concentrated in the capital city of Seoul and six other metropolitan cities: Busan, Daegu, Ulsan, Incheon, Daejeon and Gwangju. Over 43% of the total population of Korea lives in those seven major cities and 18% reside in Seoul. Seoul metropolitan area, which includes the Seoul, Incheon and Gyeonggi area, accounted for over 50% of the population. These characteristics and levels of population density are expected to continue to create excess demand for homes especially in the urban areas.

Most of the newly built residential properties are high-rise apartment complexes. A typical Korean home is an apartment designed for single household occupancy. The average size of a unit is approximately 82 to 116 square metres. The majority of homes are owner-occupied, with apartments and multi-household complexes demonstrating higher home ownership ratios due to greater availability of financing and greater liquidity for such housing types in the housing market.

Non-homeowners may enter into leases. In Korea, there are two types of lease arrangements: monthly leases and *jeonse* leases, which is unique to Korea. *Jeonse* refers to the key money deposit which is paid upfront by the tenant to the landlord, which typically ranges from 65% to 75% of the market value of the property. During the lease term, the tenant is not required to pay any rent. Instead, the landlord is free to invest the key money deposit and keep the proceeds thereof in lieu of monthly rental payments. The entire amount of the key money deposit is returned to the tenant after the expiry of the lease contract without any interest thereon. Historically, when returns on capital were high, *jeonse* provided an attractive source of income for the landlord. In recent years, the proportion of *jeonse* in the market has decreased due to the low interest rate environment and increase as a result of lower returns on capital.

Residential Market

In Korea, the residential housing market has been managed through public policy administered by the Ministry of Land, Infrastructure and Transportation.

Starting from the late 1980s, the Government initiated a series of policies to spur housing supply through the private sector by increasing the supply of usable land for real estate development to private construction companies to ease the chronic housing shortage facing Korea. Due in part to such policies, housing supply outpaced demand in 2002 and the housing supply ratio ("HSR"), which is the ratio of the number of households to the number of housing units, reached 100.6 nationally. However, there are regional differences in HSR due to changing demographics and ongoing employment-driven migration from rural areas to urban areas, resulting in higher demand in Seoul and other metropolitan cities compared to the national average.

Housing prices have fluctuated over the years and have been principally influenced by demographic changes and migration affecting demand and supply, macroeconomic conditions (including interest rate levels), availability of mortgage financing and Government policy.

Real estate comprises the most significant asset for a substantial number of households in Korea, and movements of housing prices have generally had a significant impact on the domestic economy. Accordingly, regulating housing prices, either in terms of attempting to stem actual or anticipated excessive speculation during times of a suspected housing price bubble and spur the pricing and/or volume of real estate transactions during times of a depressed real estate market by way of tax subsidy, guidelines to lending institutions or otherwise, has been a key policy initiative for the Government.

In the same vein, the regulations on mortgage and home equity loans are susceptible to the changes of housing market cycles and have been revised from time to time. From 2017 to 2022, the Government led by then

President Moon Jae-in announced and implemented a series of robust policies aimed at taming speculation and deterring the rise of housing prices. However, since the second half of 2022, the Government led by President Yoon Suk Yeol has announced and implemented a series of policies to ease the demand-side regulations in the real estate market in order to prevent the housing prices from crashing due to the recent hike in interest rates. For example, the Government has released most areas from “speculative areas”, “overheated speculative areas” and “adjustment targeted areas” (collectively, the “**regulated areas**”), where tighter loan-to-value ratios and debt-to-income ratios are applicable to mortgage or home equity loans, and as a result, only Gangnam-Gu, Seocho-Gu, Songpa-Gu and Yongsan-Gu in the greater Seoul metropolitan area are currently left as regulated areas. The Government also increased the loan to value ratio applicable to the regulated areas from 40% to 50%, removed the application of stricter loan to value ratio to new loans secured by high-priced houses located in the regulated areas and allowed the extension of new loans secured by houses located in the regulated areas to a household that already owns one or more house from March 2023 with the maximum loan-to-value ratio of 30%.

On the other hand, in order to modernise credit review methods and stabilise the management of household debt, the FSC introduced a debt service ratio and a modified debt-to-income ratio. The modified debt-to-income ratio, which has been implemented beginning 31 January 2018 reflects (i) both principal and interest payments on the applicable mortgage and home equity loan and existing mortgage and home equity loans and (ii) interest payments on other loans. Previously, debt-to-income ratio had only reflected (i) both principal and interest payments on the applicable mortgage and home equity loan and (ii) interest payments on existing mortgage and home equity loans. The current debt-to-income ratio applicable to apartment units located in the greater Seoul metropolitan area which are not “speculative areas”, “overheated speculative areas” or “adjustment targeted areas” is 60%, whereas homes located in “speculative areas” or “overheated speculative areas” are subject to a debt-to-income ratio of 40% and homes located in “adjustment targeted areas” are subject to a debt-to-income ratio of 50%. The debt service ratios reflect principal and interest payments on both the applicable loan and other loans and have been fully implemented since October 2018. The modified debt-to-income ratios are used as the primary reference index in the evaluation and approval process for mortgage and home equity loans, and debt service ratios are generally used as a supplementary reference index providing additional limits on mortgage and home equity loans. The debt service ratios applicable to the loan applicant with the total aggregate loan amount exceeding ₩100 million (including the applied but not yet extended loan amount) should not exceed 40% unless otherwise specified by the applicable regulations.

Mortgage Loan Market

Prior to 1997, the Korean mortgage market was dominated by the National Housing Fund (the “NHF”), which provided government-subsidised mortgage loans through the Housing and Commercial Bank (“H&CB”) at low interest rates. At that time, Government restrictions imposed on commercial banks prevented them from originating mortgage loans with terms of more than 10 years. Insurance companies who engaged in the mortgage loan business as an ancillary business, however, were not subject to such restrictions. According to the financial and economic trends published by the Bank of Korea, as of the end of each of 2021, 2022 and 2023, the amount of outstanding mortgage loans was approximately ₩1,179 trillion, ₩1,214 trillion and ₩1,294 trillion, respectively.

Mortgage loans are typically based on floating rates of interest, which are primarily based on the prevailing market rate for certificates of deposits in Korea. The most frequently used form of loan security for residential property in Korea is the *Keun*-mortgage, which differs from a more traditional mortgage. With more traditional mortgages, a mortgagee’s rights are automatically extinguished upon satisfaction of the underlying debt, whereas with a *Keun*-mortgage, the mortgagee’s rights are not automatically extinguished upon satisfaction of the underlying debt. Instead, a mortgagee’s rights are extinguished when the term of the *Keun*-mortgage agreement expires or if it is terminated sooner by the parties. Furthermore, the amount of the secured claim may be increased or decreased within the maximum amount as agreed upon by the mortgagee and borrower of the secured claim (which is duly registered in the relevant real estate registry) during the term of the *Keun*-mortgage agreement. Since the mortgage rights and obligations are not automatically extinguished, the contracting parties are not required to enter into and record separate mortgage agreements each time a subsequent loan is made. *Keun*-mortgages can be enforced in the same manner as various other real estate rights, including enforcement through petition for auction and entitlement to distribution in accordance with recorded priorities. Korea is a “race” jurisdiction that assigns claim priority in chronological order by date of the registration of the mortgages and other security interests. Statutory liens are exceptions to this rule and may rank senior to prior recorded mortgages and other security interests.

Regulatory Overview

For a discussion of the regulatory overview of the mortgage loan business, see “*Korean Legal Considerations—General Laws Relating to the Mortgage Loan Business.*”

REGULATION AND SUPERVISION

Principal Regulations Applicable to Banks

Capital Adequacy and Allowances

The Bank Act requires national banks, such as the Issuer, to maintain a minimum paid-in capital of ₩100 billion and regional banks to maintain a minimum paid-in capital of ₩25 billion. All banks, including foreign bank branches in Korea, are also required to maintain a prescribed solvency position. A bank must also set aside in its legal reserve an amount equal to at least 10% of the net income after tax each time it pays dividends on net profits earned until its legal reserve reaches at least the aggregate amount of its paid-in capital.

Under the Bank Act, the capital of a bank is divided into two categories, Tier I and Tier II capital. Tier I capital (core capital) consists of shareholders' equity, capital surplus, retained earnings, the comprehensive aggregate of other profit/loss amounts and hybrid Tier I capital instruments. Tier II capital (supplementary capital) includes capital and capital surplus arisen from the issuance of supplementary capital, allowance for loan losses set aside for loans classified as normal or precautionary (up to certain limits) and certain other subordinated debt.

All banks must meet minimum ratios of Tier I and Tier II capital (less any capital deductions) to risk-weighted assets, determined in accordance with FSC requirements that have been formulated based on BIS standards. These standards were adopted and became effective in 1996. All domestic banks and foreign bank branches must meet a minimum ratio of Tier I and Tier II capital (less any capital deductions) to risk-weighted assets of 8%.

The FSS amended the Detailed Rules on the Supervision of the Banking Business and, as a result, the following risk-weight ratios must be applied by Korean banks in respect of home mortgage loans:

- (1) for banks which adopted a standardised approach for calculating credit risk capital requirements, to the extent that a mortgage obtained in relation to a home mortgage loan is not repaid through the cash flow of the mortgaged property, a risk-weight ratio of 20% to 70%, depending on the loan-to-value ratio, shall apply, provided that a higher risk-weight ratio may be applied to home mortgage loans subject to certain exceptions; and
- (2) for banks which adopted an internal ratings-based approach for calculating credit risk capital requirements, a risk-weight ratio calculated with reference to the probability of default, loss given default and exposure at default (each term as defined under the Detailed Rules on the Supervision of the Banking Business).

Under the Regulation on the Supervision of the Banking Business, banks must generally maintain allowances for credit losses in respect of their outstanding loans and other credits (including trust account loans) in an aggregate amount covering not less than:

- 0.85% in the case of normal credits comprising loans to corporate borrowers (0.9% in the case of normal credits comprising loans to borrowers in the “construction,” “wholesale and retail,” “accommodation and restaurant” and “real estate and rent” industries (as classified under the Korean Industry Classification Standard)), 1.0% in the case of normal credits comprising loans to individuals and households, 1.1% in the case of normal credits comprising outstanding credit card receivables and 2.5% in the case of normal credits comprising outstanding card loans and revolving loans;
- 7.0% of precautionary credits, 10% in the case of precautionary credits comprising loans to individuals and households, 40% in the case of precautionary credits comprising outstanding credit card receivables and 50% in the case of precautionary credits comprising outstanding card loans and revolving loans;
- 20% of substandard credits, 60% in the case of substandard credits comprising outstanding credit card receivables and 65% in the case of substandard credits comprising outstanding card loans and revolving loans;
- 50% of doubtful credits, 55% in the case of doubtful credits comprising loans to individuals and households and 75% in the case of doubtful credits comprising outstanding credit card receivables, card loans and revolving loans; and
- 100% of estimated loss credits.

Furthermore, under the Regulation on the Supervision of the Banking Business, Korean banks must establish allowances in respect of any confirmed guarantees (including confirmed acceptances) and outstanding unused

credit lines as of the date of settlement in an aggregate amount calculated at the same rates applicable to normal, precautionary, substandard and doubtful credits comprising their outstanding loans and other credits as set out above. See “— *Regulations Relating to Retail Household Loans.*”

FSC amended the Regulations concerning the Supervision of the Banking Business as of 28 June 2007 in order to reflect the Basel II (or the new BIS standard) to the Regulations. The amendment became effective as of 1 January 2008. Under the amended Regulations, with respect to the evaluation of the credit risk for the calculation of the required capital ratio, banks may select either the Internal Rating-Based Approach (“**IRB**”) established by themselves or the Standard Approach provided by FSC. To select the IRB, a bank has to obtain the approval of the FSS. Under the new BIS standard, there is no change to the market risk, and the evaluation of the operating risk is required in addition to the credit risk and the market risk when calculating the required capital ratio. For the evaluation of the operating risk, banks may select either the Standard Approach, for which no Governmental approval is required, or Advanced Measurement Approaches, for which the FSS approval is required.

In May 2013, the FSC announced its decision, in conjunction with the Ministry of Economy and Finance, FSS and the Bank of Korea, to gradually implement Basel III by 1 December 2013. Under the regulations, which came into effect as of 1 December 2013, Korean banks were required to maintain a minimum ratio of Tier I common capital (which principally includes equity capital, capital surplus and retained earnings less reserve for credit losses) to risk weighted assets of 3.5% and Tier I capital to risk weighted assets of 4.5% from 2013. Such minimum ratios of Tier I common capital to risk weighted assets and Tier I capital to risk weighted assets were increased to 4.0% and 5.5%, respectively, from 2014 and 4.5% and 6.0%, respectively, from 2015. These requirements would be in addition to the existing requirement for a total minimum ratio of Tier I and Tier II capital (less any capital deductions) to risk weighted assets of 8.0%, which remains unchanged. The regulations also contemplate an additional capital conservation buffer of 2.5%, as well as a potential counter-cyclical capital buffer of up to 2.5%, which is determined on a quarterly basis by the FSC.

In December 2015, the FSC approved the implementation of counter-cyclical capital buffer requirement (to range from 0% to 2.5%) to be determined by the FSC under Basel III, effective as of January 2016. The counter-cyclical capital buffer requirement was initially set at 0%, and the FSC announced an increase to 1%, effective from May 2024. Furthermore, in December 2015, the FSC designated Hana Financial Group, Shinhan Financial Group, KB Financial Group and NongHyup Financial Group as domestic systemically important bank holding companies and Woori Bank as a domestic systemically important bank and introduced more stringent capital requirements for these financial institutions. According to these regulations, such financial institutions were required to maintain an additional capital buffer of 0.25% starting on 1 January 2016, with such buffer to increase by 0.25% annually to 1.00% by 1 January 2019.

In July 2021, Hana Financial Group, Shinhan Financial Group, KB Financial Group, NongHyup Financial Group and Woori Financial Group were designated by the FSC as domestic systemically important bank holding companies, and Hana Bank, Shinhan Bank, Kookmin Bank, NongHyup Bank and Woori Bank were designated by FSC as domestic systemically important banks. In addition, in July 2021, the FSC identified domestic systemically important bank holding companies and domestic systemically important banks as domestic systemically important financial institutions under the Act on the Structural Improvement of the Financial Industry. Domestic systemically important financial institutions are required to prepare and submit their own recovery plans to the FSS within three months from the date of notification of designation pursuant to the Act on the Structural Improvement of the Financial Industry. Hana Financial Group and Hana Bank have been selected as a domestic systemically important bank holding company and domestic systemically important bank, respectively, since 2016.

Liquidity

All banks are required to ensure adequate liquidity by matching the maturities of their assets and liabilities in accordance with the Bank Act. Banks may not invest an amount exceeding 100% of their Tier I and Tier II capital (less any capital deductions) in stocks, derivatives linked securities and other securities with a maturity of over three years. This stipulation does not apply to Korean government bonds, to bond principal and interest payments guaranteed by the Korean government or to Monetary Stabilisation Bonds issued by the Bank of Korea. The FSC also requires each Korean bank to:

- (i) maintain a liquidity coverage ratio (defined as high liquidity assets divided by net cash outflow of the next 30 days) of not less than 100%;

- (ii) maintain a foreign currency liquidity coverage ratio (defined as high liquidity assets divided by net cash outflow of the next 30 days with respect to foreign currency assets and liabilities) of not less than 80%; and
- (iii) submit monthly reports with respect to the maintenance of these ratios.

The Monetary Policy Committee of the Bank of Korea is empowered to fix and alter minimum reserve requirements that banks must maintain against their deposit liabilities. The current minimum reserve ratio is:

- 7.0% of average balances for Won currency demand deposits outstanding;
- 0% of average balances for Won currency long-term house purchase savings deposits and asset establishment savings deposits; and
- 2.0% of average balances for Won currency time deposits, instalment savings deposits, mutual instalments, housing instalments and certificates of deposit outstanding.

Additionally, the FSC is separately empowered to establish minimum reserve ratio requirements that must be accumulated and maintained for certain types of obligations designated by the FSC from time to time.

For foreign currency deposit liabilities, a 2.0% minimum reserve ratio is applied to foreign currency time deposits which reach maturity no earlier than 1 month, foreign currency certificate of deposits which reach maturity no earlier than 30 days, foreign currency instalments savings deposits which reach maturity no earlier than 6 months and a 7.0% minimum reserve ratio is applied to other deposits. A 1.0% minimum reserve ratio applies to offshore accounts, immigrant accounts and resident accounts opened by financial institutions (other than bank holding companies) and the Export-Import Bank of Korea as well as foreign currency certificates of deposit held by account holders of such offshore accounts.

Financial Exposure to Any Individual Customer and Major Shareholder

Under the Bank Act, the sum of large exposures by a bank — in other words, the total sum of its credits to single individuals, juridical persons or business groups that exceed 10% of the sum of Tier I and Tier II capital (less any capital deductions) — generally must not exceed five times the sum of Tier I and Tier II capital (less any capital deductions). In addition, banks generally may not extend credit (including loans, guarantees, purchases of securities (only in the nature of a credit) and any other transactions that directly or indirectly create credit risk) in excess of 20% of the sum of Tier I and Tier II capital (less any capital deductions) to a single individual or juridical person, or grant credit in excess of 25% of the sum of Tier I and Tier II capital (less any capital deductions) to a single group of companies as defined in the Monopoly Regulations and Fair Trade Act.

The Bank Act also provides for certain restrictions on extending credits to a major shareholder. A “**major shareholder**” is defined as:

- a shareholder holding (together with persons who have a special relationship with that shareholder) in excess of 10% (or 15% in the case of regional banks) in the aggregate of the bank’s total issued voting shares; or
- a shareholder holding (together with persons who have a special relationship with that shareholder) in excess of 4% in the aggregate of the bank’s (excluding regional banks) total issued voting shares (excluding shares subject to the shareholding restrictions on “non-financial business group companies” as described below), where the shareholder is the largest shareholder or has actual control over the major business affairs of the bank through, for example, appointment and dismissal of the officers pursuant to the Enforcement Decree of the Bank Act. Non-financial business group companies primarily consist of: (i) any single shareholding group whose total amount of gross capital for non-financial company comprise no less than 25% of its total amount of gross capital; (ii) any single shareholding group whose non-financial company assets comprise no less than ₩2 trillion in aggregate; (iii) any investment company under the FSCMA of which any single shareholding group identified in (i) or (ii) above, owns more than 4% of the total issued and outstanding shares; or (iv) a private equity fund under the FSCMA which meets certain requirements as prescribed in the Bank Act.

In addition to the existing restrictions which prohibit banks from extending credits to a major shareholder (together with persons who have a special relationship with that shareholder) in an amount greater than the lesser of (x) 25% of the sum of the bank’s Tier I and Tier II capital (less any capital deductions) and (y) the relevant major shareholders’ shareholding ratio multiplied by the sum of the bank’s Tier I and Tier II capital (less any

capital deductions) and require that the total sum of credits granted to all major shareholders must not exceed 25% of the bank's Tier I and Tier II capital (less any capital deductions), under these amendments, banks may not extend credit to a major shareholder for the purpose of financing such shareholder's investment in other companies or on terms more advantageous to such shareholder. Furthermore, banks may not transfer their assets and/or properties to a major shareholder without being paid a consideration.

The Financial Holding Company Act imposes limits on extending credit to single borrowers and to major capital contributors similar to the limits imposed by the Bank Act with regard to extending credit to single borrowers and major shareholders. The definition of a **“major capital contributor”** under the Financial Holding Company Act, which is similar to the definition used in the Bank Act, is as follows:

- a shareholder holding (together with persons who have a special relationship with that shareholder) in excess of 10% (or 15% in the case of regional bank holding companies) in the aggregate of a bank holding company's total issued voting shares; or
- a shareholder holding (together with persons who have a special relationship with that shareholder) in excess of 4% in the aggregate of a bank holding company's (excluding regional bank holding companies) total issued voting shares (excluding shares subject to the shareholding restrictions on “non-financial business group companies” under the Financial Holding Company Act), where the shareholder is the largest shareholder or has actual control over the major business affairs of a bank holding company and its subsidiaries, sub-subsidiaries and any subsidiaries thereof (and under the Financial Holding Company Act, this includes any foreign subsidiaries of sub-subsidiaries (as brought into the holding structure of the financial holding company) and companies controlled by them through, for example, appointment and dismissal of the officers, as determined pursuant to the provisions of an applicable Presidential Decree, and includes non-financial business group companies that participate in the business management of a relevant financial institution through, for example, appointment and dismissal of the officers, as determined pursuant to the provisions of an applicable Presidential Decree.

According to the Financial Holding Company Act, the total amount of credit that may be extended by a financial holding company and its subsidiaries, etc. (**“financial holding company, etc.”**) to any single individual, juridical person or business group is not permitted to exceed an amount equal to 25% of the total net capital of the financial holding company, etc.

Additionally, the total amount of credit that may be extended by a bank holding company and its subsidiaries (**“bank holding company, etc.”**) to a major capital contributor (including specially related persons thereof) is not permitted to exceed the lesser of (x) the amount equal to 25% of the total net capital of the bank holding company, etc. and (y) the relevant major capital contributors' shareholding ratio in the bank holding company. The total amount of credit that may be extended by a bank holding company, etc. to all of major capital contributors (including specially related persons thereof) is not permitted to exceed an amount equal to 25% of the total net capital of the bank holding company, etc.

A bank holding company, etc. is not permitted to extend credit to major capital contributors (including specially related persons thereof) in support of such major capital contributors' investments in other companies, and is not permitted to transfer assets to major capital contributors without consideration.

The above provisions will be applicable with regard to Hana Bank extending credit to any major capital contributors of Hana Financial Group, since Hana Financial Group is a bank holding company and Hana Bank is a subsidiary of Hana Financial Group.

Interest Rates

Korean banks generally depend on deposits as their primary funding source. There are no legal controls on interest rates on loans extended by the financial institutions in Korea, except for the cap of 20.0% per annum on interest rates on loans to individuals or small corporations, as defined under the Framework Act on Small and Medium Enterprises under the Act on Registration of Credit Business, Etc. and Protection of Finance Users.

Lending to Small- and Medium-Sized Enterprises

In order to obtain funding from the Bank of Korea at concessionary rates for their SME loans, banks are required to allocate a certain minimum percentage of any monthly increase in their Won currency lending to SMEs.

Currently, this minimum percentage is 50% in the case of national banks and regional banks. If a bank does not comply with this requirement, the Bank of Korea may:

- require the bank to prepay all or a portion of funds provided to that bank in support of loans to SMEs; or
- lower the bank's credit limit.

Disclosure of Management Performance

In order to assist the general public, especially depositors and shareholders, in monitoring bank management performance, the FSS requires commercial banks to make mandatory public disclosures of the following (except as may otherwise have been disclosed by a bank or its financial holding company listed on the Korea Exchange in accordance with the FSCMA):

- loans bearing no profit made to a single business group in an amount exceeding 10% of the sum of the bank's Tier I and Tier II capital (less any capital deductions) as of the end of the previous month (where the loan exposure to that borrower is calculated pursuant to the criteria under the Detailed Regulation on Supervision of the Banking Business), unless the loan exposure to that group is not more than ₩4 billion; and
- any loss due to court judgements or similar decisions in civil proceedings in an amount exceeding 1% of the sum of the bank's Tier I and Tier II capital (less any capital deductions) as of the end of the previous month, unless the loss is not more than ₩1 billion.

Restrictions on Lending

Pursuant to the Bank Act, commercial banks may not provide:

- loans directly or indirectly secured by a pledge of a bank's own shares;
- loans directly or indirectly to enable a natural or juridical person to buy the bank's own shares;
- loans to any of the bank's officers or employees, other than petty loans of up to ₩20 million in the case of a general loan, ₩50 million in the case of a general loan plus a housing loan or ₩60 million in the aggregate for general loans, housing loans and loans to pay damages arising from wrongful acts of employees in financial transactions; or
- credit (including loans) secured by a pledge of shares of a subsidiary corporation of the bank or to enable a natural or juridical person to buy shares of a subsidiary corporation of the bank.

Regulations Relating to Retail Household Loans

The FSC has implemented a number of changes to the mechanisms by which a bank evaluates and reports its retail household loan balances and has proposed implementing further changes. As a result of the rapid increase in retail household loans and related credit risks, in 2007, the FSC and the FSS increased the minimum provisioning requirements for retail household loans. These minimum requirements are set forth in the following table:

<u>Asset Quality Classification</u>	<u>Provisioning Ratio on Retail Household Loans</u>	
	<u>Before 2007</u>	<u>Current</u>
Normal	0.75% or above	1.0% or above
Precautionary	8.0% or above	10.0% or above
Substandard	20.0% or above	20.0% or above
Doubtful	55.0% or above	55.0% or above
Estimated loss	100.0%	100.0%

In addition, due to a rapid increase in loans secured by homes and other forms of housing, the FSC and the FSS implemented regulations designed to reduce the rate of increase in these loans. Effective from the third quarter of 2002, the FSC and the FSS raised minimum provisioning requirements for new loans secured by housing located in the areas of wide-spread real property speculation, with respect to the portion of the new loan that exceeds the loan-to-value ratio of 60.0%, to 1.0% from 0.75% for normal loans and to 10.0% from 5.0% for precautionary loans. They also raised the minimum provisioning requirements for household loans classified as precautionary from 2.0% to 8.0% with effect from the fourth quarter of 2002.

In a further effort to curtail extension of new or refinanced loans secured by housing, the FSC and the FSS subsequently:

- reduced the average loan-to-value ratio (the aggregate principal amount of credit over the approval value of collateral) that Korean commercial banks must maintain for new loans secured by housing located in Korea to below 60%; and
- increased risk-weights for loans secured by housing meeting certain criteria in connection with the capital adequacy calculation for commercial banks.

On 8 November 2002, the FSC and the FSS issued guidelines that:

- require Korean commercial banks to implement stronger internal control systems and stricter credit review and approval policies with respect to loans secured by housing;
- introduce sharing of information on multiple housing loans to a single borrower within the financial industry;
- require Korean commercial banks to appoint two to three qualified market value appraisal institutions and to use the lowest of the appraisal valuations; and
- discourage the use of incentive-based compensation systems by Korean commercial banks.

Furthermore, on 29 October 2003, the FSC announced more stringent guidelines that require Korean commercial banks to maintain loan-to-value ratios equal to or less than 40% for new loans secured by real estate located in the areas of wide-spread real property speculation. On 30 August 2005, the FSC further announced another set of guidelines under which the Korean commercial banks are required to maintain the debt-to-income ratio of 40% or less for each new loan in addition to the loan-to-value ratio requirement in case such loan is borrowed for the purpose of financing each additional home exceeding the one home per household and secured by a home located in the wide-spread real property speculation areas.

Again on 30 March 2006, the FSC announced stronger guidelines that require Korean commercial banks to maintain debt-to-income ratio equal to 40% or less for any new loans secured by real estate of which value is ₩600 million or more in the areas of wide-spread real property speculation.

In addition, due to a rapid increase in the number of loans secured by homes and other forms of housing, the FSC and the FSS amended the Regulation on the Supervision of the Banking Business in July 2007, November 2008, November 2010 and May 2013 to implement measures designed to reduce the rate of increase in these loans secured by housing, including the following:

- in respect of loans secured by collateral consisting of housing located in Korea, the loan-to-value ratio (the aggregate principal amount of loans secured by such collateral over the appraised value of the collateral) should not exceed 70%;
- in respect of loans secured by collateral consisting of housing (including apartments) located in areas of excessive investment as designated by the Government, (i) the loan-to-value ratio for loans with a maturity of not more than three years should not exceed 50%, (ii) the loan-to-value ratio for loans with a maturity of more than three years should not exceed 60% and (iii) the loan-to-value ratio for loans to be amortised over the period of ten years should not exceed 70%;
- in respect of loans secured by collateral consisting of housing (excluding apartments) located in areas of high speculation as designated by the Government, (i) the loan to value ratio for loans with a maturity of not more than three years should not exceed 50%, (ii) the loan to value ratio for loans with a maturity of more than three years should not exceed 60% and (iii) the loan-to-value ratio for loans to be amortised over the period of ten years should not exceed 70%;
- in respect of loans secured by collateral consisting of apartments located in areas of high speculation as designated by the Government, (i) the loan-to-value ratio for loans with a maturity of not more than ten years should not exceed 40%; and (ii) the loan-to-value ratio for loans with a maturity of more than ten years should not exceed (a) 40%, if the price of such apartment is over ₩600 million, and (b) 60%, if the price of such apartment is ₩600 million or lower;
- in respect of loans extended for the acquisition of a new apartment and secured by such apartment with an appraisal value of more than ₩600 million in areas of high speculation as designated by the Government or in certain metropolitan areas designated as areas of excessive investment by the

Government, the borrower's debt-to-income ratio (calculated as (i) the aggregate annual total payment amount of (x) the principal of and interest on loans secured by such apartment(s) and (y) the interest on other debts of the borrower over (ii) the borrower's annual income) should not exceed 40%;

- in respect of a borrower (i) whose spouse already has a loan secured by housing or (ii) who is single and under the age of 30, the debt-to-income ratio of the borrower in respect of loans secured by apartment(s) located in areas of high speculation as designated by the Government should not exceed 40%;
- in respect of apartments located in areas of high speculation as designated by the Government, a borrower is permitted to have only one new loan secured by such apartment; and
- where a borrower has two or more loans secured by apartments located in areas of high speculation as designated by the Government, the loan with the earliest maturity date must be repaid first and the number of loans must eventually be reduced to one.

Moreover, from 2017 to 2022, the Government led by then President Moon Jae-in announced and implemented a series of robust policies aimed at taming speculation and deterring the rise of housing prices. Under the Regulation on the Supervision of the Banking Business which has been revised from time to time during the above period, a bank is (i) subject to certain loan-to-value ratio and debt-to-income ratio limits of 40% each when extending home mortgage loans for the purchase of homes located in areas designated as "speculative" or "overheated speculative" (**provided that**, (1) if a borrower has no pre-existing housing, and his/her annual income combined with his/her spouse is equal to ₩80 million or less, and housing is appraised at a market value of less than ₩600 million, the loan-to-value ratio and debt-to-income ratio limits will be increased by 10% each; (2) the loan-to-value ratio and debt-to-income ratio limits will be decreased by 10% each when the purpose of extending the home mortgage (on the housing being purchased) loan is to fund the borrower's purchase of additional housings in unregulated areas irrespective of the location of the borrower's pre-existing housing; (3) the loan-to-value ratio and debt-to-income ratio limits will be decreased by 10% each when the purpose of extending the home mortgage (on the pre-existing housing) loan is to fund the borrower's purchase of additional housings in unregulated areas who has pre-existing housing in unregulated areas; (4) the loan-to-value ratio of a home mortgage loan for a residential property located in speculative or overheated speculative areas which is appraised at a market value exceeding ₩900 million shall have limits of (x) 40% for a portion of such value not exceeding ₩900 million and (y) 20% for the rest of such value exceeding ₩900 million), (ii) subject to a restriction that a home mortgage loan is not permitted in areas designated as "regulated" for any borrowers who have pre-existing housing without regard to its location, **provided that**, the borrower who owns only one housing can obtain a new home mortgage loan on the condition that the borrower sells its pre-existing housing within certain periods determined by the FSC from the drawdown date of such home mortgage loan, (iii) subject to a restriction that if a borrower has no pre-existing housing, no home mortgage loan shall be made available for such borrower for housing with a market value exceeding ₩900 million, **provided that** the borrower can obtain a new home mortgage loan on the condition that the borrower will move into a newly purchased housing within certain periods determined by the FSC from the drawdown date of such home mortgage loan and (iv) subject to a restriction that if an apartment located in speculative or expressively speculative areas has a market value exceeding ₩1.5 billion, no mortgage loan shall be made available (with a few exceptions).

However, since the second half of 2022, the Government led by President Yoon Suk Yeol has announced and implemented a series of policies to ease the demand-side regulations in the real estate market in order to prevent the housing prices from crashing due to the recent hike in interest rates. For example, the Government has released most areas from "speculative areas", "overheated speculative areas" and "adjustment targeted areas" (collectively, the "**regulated areas**"), and as a result, only Gangnam-Gu, Seocho-Gu, Songpa-Gu and Yongsan-Gu in the greater Seoul metropolitan area are currently left as the regulated areas. The Government also increased the loan to value ratio applicable to the regulated areas from 40% to 50%, removed the application of stricter loan to value ratio to new loans secured by high-priced houses located in the regulated areas (such as items (i)(4) and (iv) in the preceding paragraph) and allowed the extension of new loans secured by houses located in the regulated areas to a household that already owns one or more house from March 2023 with the maximum loan-to-value ratio of 30%.

On the other hand, in order to modernise credit review methods and stabilise the management of household debt, the FSC introduced a debt service ratio and a modified debt-to-income ratio. The modified debt-to-income ratio, which has been implemented beginning 31 January 2018 reflects (i) both principal and interest payments on the applicable mortgage and home equity loan and existing mortgage and home equity loans and (ii) interest payments on other loans. Previously, debt-to-income ratio had only reflected (i) both principal and interest

payments on the applicable mortgage and home equity loan and (ii) interest payments on existing mortgage and home equity loans. The current debt-to-income ratio applicable to apartment units located in the greater Seoul metropolitan area which are not “speculative areas”, “overheated speculative areas” or “adjustment targeted areas” is 60%, whereas homes located in “speculative areas” or “overheated speculative areas” are subject to a debt-to-income ratio of 40% and homes located in “adjustment targeted areas” are subject to a debt-to-income ratio of 50%. The debt service ratios reflect principal and interest payments on both the applicable loan and other loans and have been fully implemented since October 2018. The modified debt-to-income ratios are used as the primary reference index in the evaluation and approval process for mortgage and home equity loans, and debt service ratios are generally used as a supplementary reference index providing additional limits on mortgage and home equity loans. The debt service ratios applicable to the loan applicant with the total aggregate loan amount exceeding ₩100 million (including the applied but not yet extended loan amount) should not exceed 40% unless otherwise specified by the applicable regulations.

In addition, the supervising authorities in Korea from time to time issue administrative instructions to Korean banks, which have the effect of regulating the access of borrowers to housing loans and, as such, demand for real estate properties. For example, the FSS issued administrative instructions to financial institutions to (except in limited circumstances) verify the borrower’s ability to repay based on proof of income prior to making a mortgage and home equity loan regardless of the type or value of the collateral or the location of the property, which has had the effect of practically barring the grant of any new mortgage and home equity loans to borrowers without verifiable income.

Restrictions on Investments in Property

A bank may possess real estate property only to the extent necessary for the conduct of its business, unless the aggregate value of that property does not exceed 60% of the sum of the bank’s Tier I and Tier II capital (less any capital deductions). Any property that a bank acquires by exercising its rights as a secured party, or which a bank is prohibited from acquiring under the Bank Act, must be disposed of within three years.

Restrictions on Shareholdings in Other Companies

Under the Bank Act, a bank may not own more than 15% of shares outstanding with voting rights of another corporation, except where, among other reasons:

- that corporation engages in a category of financial businesses set forth by the FSC; or
- the acquisition is necessary for the corporate restructuring of the corporation and is approved by the FSC.

In the above exceptional cases, a bank must satisfy either of the following requirements:

- the total investment in corporations in which the bank owns more than 15% of the outstanding shares with voting rights does not exceed 20% of the sum of Tier I and Tier II capital (less any capital deductions); or
- if the application requirements set by the FSC are met, voting shares shall not exceed 30% of the sum of Tier I and Tier II capital.

The Bank Act provides that a bank may not acquire the shares of another corporation that is a major shareholder of the bank in excess of an amount equal to 1% of the sum of Tier I and Tier II capital (less any capital deductions).

The Financial Holding Company Act provides that a bank holding company, etc. may not acquire the shares issued by its major capital contributors in an amount greater than 1% of the total net capital of the bank holding company, etc.

Restrictions on Bank Ownership

Under the Bank Act, a single shareholder, together with any persons who have a special relationship with that shareholder may acquire generally beneficial ownership of no more than 10% of a national bank’s total issued and outstanding shares with voting rights and no more than 15% of a regional bank’s total issued and outstanding shares with voting rights. The Government, KDIC and bank holding companies qualified under the Financial Holding Company Act are not subject to this limit. However, by obtaining an approval from the FSC, a person

(whether a Korean national or a foreign investor), with the exception of non-financial business group company as described below, may acquire more than 10% of a national bank's total voting shares issued and outstanding (or 15% in the case of regional banks) and such approval from the FSC is required in each instance where the total holding of such person will exceed 10% (or 15% in the case of regional banks), 25% or 33% of the bank's total voting shares issued. In addition, if (i) a person's shareholding in a national bank exceeds 4% of that bank's outstanding voting shares, (ii) such person becomes the largest shareholder of the bank, (iii) there is a change in the shareholding of such person by 1% or more or (iv) where a private equity fund or investment purpose company under the FSCMA holds in excess of 4% of that bank's outstanding voting shares and there is a change in the members and/or shareholder of the private equity fund or investment purpose company, such person or the private equity fund or the investment purpose company shall file a report to the FSC. Furthermore, according to the Financial Holding Company Act, a single shareholder is not permitted to hold more than 10% of the total issued and outstanding voting shares of a bank holding company (or 15% in the case of a regional bank holding company's shares). The Government and the KDIC are not subject to this limit. Such limit also does not apply to a financial holding company's holding of shares of a bank holding company under its control. The FSC may grant approval for exceptions to the above-referenced 10% holding limit (or 15% in the case of regional bank holding companies).

Meanwhile, a non-financial business group company is not allowed to own more than 4% (or 15% in the case of regional bank holding companies) of the total issued and outstanding shares with voting rights of a national bank or a regional bank. However, the non-financial business group company may be permitted to own up to 10% of the total issued and outstanding shares of a national bank by obtaining an approval from the FSC on condition that such non-financial business group company will not exercise voting rights in excess of the 4% threshold.

Deposit Insurance System

The Depositor Protection Act provides insurance for certain deposits of banks in Korea through a deposit insurance system. Under the Depositor Protection Act, all banks governed by the Bank Act are required to pay an insurance premium to the KDIC on a quarterly basis. The rate is determined under the Enforcement Decree to the Depositor Protection Act, and may not exceed 0.5% of the bank's insurable deposits in any given year. The current insurance premium is 0.02% of insurable deposits for each quarter. If the KDIC makes a payment on an insured amount, it will acquire the depositors' claims with respect to that payment amount. The KDIC insures a maximum of ₩50 million for deposits and interest, regardless of when the deposits were made and the size of the deposits. In December 2024, the Korean National Assembly passed an amendment to the Depositor Protection Act to increase the maximum limit from ₩50 million to ₩100 million. Once the amended act takes effect, the depositor protection limit is expected to increase to ₩100 million.

The Financial Consumer Protection Act

The Financial Consumer Protection Act (the "FCPA") was enacted on 24 March 2020 and took effect beginning 25 March 2021. The FCPA unifies the systems for the protection of consumers of financial products, which had been dispersed in various laws, while tightening the existing consumer protection systems to strengthen the rights afforded to consumers of financial products. Banks under the Banking Act are financial instrument distributors subject to the FCPA, and deposit and loan products under the Banking Act are financial instruments subject to the FCPA.

Under the FCPA, a financial instrument distributor who intends to sell financial instruments shall comply with the following requirements: (i) confirmation of suitability and adequacy of financial instruments, (ii) compliance with the duty to explain, (iii) prohibition of unfair sales activities, (iv) prohibition of undue solicitation, and (v) prohibition of false or exaggerated advertising, etc. (collectively, the "Sales Principles"). If a financial instrument distributor breaches any of the Sales Principles, consumers may request the termination of such financial instrument within a period to be prescribed by a Presidential Decree and are entitled to unilaterally terminate the contract if the financial instrument distributor fails to present a justifiable reason for not accepting the consumer's request. Consumers who purchased a loan product, in particular, shall be entitled to withdraw from the contract within 14 days from the later of (i) the date of receipt of the proceeds pursuant to the contract and (ii) the execution date of the contract (or the date of receipt of the documents necessary for execution of the contract (if required under the FCPA), regardless of whether the financial instrument distributor breached any of the Sales Principles. When a consumer files a lawsuit for damages against a financial instrument distributor for breach of the duty to explain, the financial instrument distributor (and not the consumer) shall bear the burden of proof to prove that no willful conduct or negligence was involved in such breach of the duty to explain. In the event of a dispute with a financial instrument distributor, consumers may apply for mediation to the Dispute

Mediation Committee of the FSC. If a financial instrument distributor files a lawsuit with a court while such mediation is in progress, the court may suspend the litigation proceedings. For certain small-sum cases, a financial instrument distributor may not file a lawsuit with a court until the completion of such mediation. Financial instrument distributors must accept requests from its consumers to access information for purposes of litigation or mediation. In the event the FSC determines that there is a clear risk that a financial product may cause significant damage to the properties of customers, the FSC may prohibit or restrict the solicitation of, and execution of a contract for, such financial product.

Restrictions on Foreign Exchange Position

Under the Korean Foreign Exchange Transaction Regulation, each of a bank's net overpurchased and oversold positions may not exceed 50% of its shareholders' equity as of the end of the prior month.

Laws and Regulations Governing Other Business Activities

A bank must register with the Ministry of Economy and Finance to enter the foreign exchange business, which is governed by the Foreign Exchange Transaction Law. Under the FSCMA, which became effective as of 4 February 2009 (replacing the Securities and Exchange Act), a bank wishing to engage in (i) the purchase, sale or underwriting of financial investment products for its own account is required to obtain a licence for dealing business from the FSC and (ii) the purchase and sale of financial investment products for the account of another person is required to obtain a licence for brokerage business. Financial investment products are classified into two categories (securities products and derivatives products) depending on the nature of the risk involved. Securities products refer to any investment product (e.g., a stock or bond) which has a possibility of loss up to the amount of the principal invested. Derivatives products refer to any investment product which has a possibility of loss over and above the amount of the principal invested. If a bank previously had a licence to engage in the securities business from the FSC under the Securities Exchange Act, such licence will remain effective so long as the bank satisfied its reporting requirements to the FSC in accordance with the FSCMA for a certain period of time prior to the FSCMA becoming effective.

Trust Business

A bank must obtain a licence for trust business from the FSC to engage in trust business pursuant to the FSCMA (which replaced the Trust Business Act and Indirect Investment Asset Management Business Act). A licence for trust business obtained by a bank under the Trust Business Act remains effective so long as the bank satisfied its reporting requirements to the FSC in accordance with the FSCMA for a certain period of time prior to the FSCMA becoming effective.

Under the Bank Act, assets accepted in trust by a bank in Korea must be segregated from the other assets in the accounts of such bank. This requires banks engaged in both banking and trust businesses to maintain two separate sets of accounts and two separate sets of records. The depositors and other general creditors of a bank cannot obtain or assert claims against the assets comprising the trust accounts in the event such bank is liquidated or wound up.

Since January 1999, the Government has prohibited Korean banks from offering new guaranteed fixed rate trust account products that guarantee the principal invested and interest payments. In the event that a bank qualifies and operates as a collective investment business servicer, a trustee or a custodian under the FSCMA, it is required to establish relevant operation and management systems to prevent potential conflicts of interest among the banking business, the collective investment business and the trustee or custodian business. These measures include:

- prohibitions against officers, directors and employees of one particular business operation from serving as an officer, director and employee in another business operation;
- prohibitions against the joint use or sharing of computer equipment or office equipment; and
- prohibitions against the sharing of information by and among officers, directors and employees engaged in the different business operations.

Financial Investment Services and Capital Markets Act

On 3 July 2007, the National Assembly of Korea passed the FSCMA. This new legislation consolidated six Acts regulating capital markets and financial investment business and products in Korea into one Act. The FSCMA became effective as of 4 February 2009. The following is a summary of the major changes introduced by the FSCMA.

Consolidation of Capital Markets-Related Laws

Prior to the effective date of the FSCMA, there were separate laws regulating each type of financial organisation (e.g., the Securities and Exchange Act for securities companies, the Futures Business Act for companies dealing in futures, the Trust Business Act for trust business companies and the Indirect Investment Asset Management Business Act for asset management companies) and subjecting financial organisations to different licencing and on-going regulatory requirements. By applying one uniform set of rules to financial businesses carrying out the same economic function, the FSCMA intends to improve the capital markets system and address issues caused by the previous regulatory system under which the same economic function relating to capital markets-related businesses was governed by several different sets of rules. To this end, the FSCMA categorises capital markets-related businesses into six different functions (collectively, the “**Financial Investment Businesses**” and each a “**Financial Investment Business**”), as follows:

- dealing (trading and underwriting of financial investment products);
- brokerage (brokerage of financial investment products);
- collective investment (establishment of collective investment schemes and the management thereof);
- investment advice;
- discretionary investment management; and
- trusts.

Therefore, all previous financial businesses relating to financial investment products have been reclassified as one or more of the Financial Investment Businesses described above and financial organisations are now subject to the regulations applicable to their relevant Financial Investment Business(es), irrespective of the type of financial organisation.

Banking and insurance are not subject to the FSCMA and continue to be regulated under separate laws. However, Korean banks and insurance companies are subject to the FSCMA if they intend to engage in Financial Investment Businesses and may need to obtain appropriate licences under the FSCMA.

Comprehensive Definition of Financial Investment Products

In an effort to encompass the various types of securities and derivative products available in the capital markets, the FSCMA sets forth a comprehensive term “financial investment products,” defined to mean all financial products with a risk of loss in respect of the amount invested (in contrast to deposits where the principal is protected). Under the FSCMA, financial investment products are classified into two major categories: (i) securities” (meaning financial investment products in respect of which the risk of loss is limited to the amount invested) and (ii) “derivatives” (meaning financial investment products of which the risk of loss may exceed the amount invested).

As a result of the general and open-ended manner in which financial investment products are defined, any future financial product could potentially fall within the scope of the definition of financial investment products, thereby enabling the financial organisation licenced under the FSCMA (“**Financial Investment Business Entity**”) to handle a broader range of financial products. Under the FSCMA, securities companies, asset management companies, companies dealing in futures and other entities engaging in any Financial Investment Business are classified as Financial Investment Business Entities.

New Licence System and the Conversion of Existing Licences

Under the FSCMA, the financial investment business units (each being a unit of business pursuant to which financial organisations shall be licenced) are classified into numerous categories depending on the type of (i) financial investment service, (ii) financial investment product, and (iii) target customers to which financial investment products may be sold or dealt (i.e., general investors or professional investors). Financial Investment Business Entities are able to choose which Financial Investment Business(es) to engage in (via a “check the box” method set forth in the relevant licence application) by specifying the desired financial investment business unit or units. Under the FSCMA, Financial Investment Business Entities are permitted to engage in multiple types of Financial Investment Businesses, subject to satisfying relevant regulations (such as minimum capital requirements and maintaining an adequate “**Chinese Wall**”).

Financial organisations previously engaging in business activities constituting a Financial Investment Business were required to take certain steps, such as renewal of their licence or registration, in order to continue engaging in such business activities. Banks and insurance companies are permitted to engage in certain categories of Financial Investment Business upon obtaining the appropriate licence(s) under the FSCMA, to the extent permitted under the Bank Act or the Insurance Business Act, as the case may be.

Expanded Business Scope of Financial Investment Business Entities

Under the FSCMA, by integrating businesses involving financial investment products into a single Financial Investment Business and allowing Financial Investment Business Entities to choose multiple Financial Investment Businesses to engage in, the business scope and opportunities of the licenced Financial Investment Business Entities are expanded.

Under the FSCMA, Financial Investment Business Entities may engage in business(es) incidental to the Financial Investment Business (“**incidental businesses**”), including settlement and remittance services. Furthermore, under the Enforcement Decree of FSCMA, a dealer of securities investments (including underwriting services) may conduct corporate finance business; and a dealer of securities and over-the-counter derivatives (including underwriting services) may conduct payment guarantees business. Therefore, corporate finance business and payment guarantees business can be carried out by both banks and financial organisations which have received licences on respect of the relevant business units. In addition, a Financial Investment Business Entity is permitted to outsource marketing activities by contracting “introducing brokers” that are individuals but not employees of the Financial Investment Business Entity.

Improvement in Investor Protection Mechanism

While the FSCMA widens the scope of Financial Investment Businesses, a more rigorous investor protection mechanism is imposed upon Financial Investment Business Entities dealing in financial investment products. The FSCMA distinguishes general investors from professional investors and provides the former with new or enhanced protections. The FSCMA expressly provides for a strict know-your-customer rule for general investors and imposes an obligation on Financial Investment Business Entities to market financial investment products that are suitable for each general investor, using written explanatory materials. Under the FSCMA, a Financial Investment Business Entity could be liable if a general investor proves (i) the absence of the requisite written explanatory materials and (ii) damage or loss resulting from the general investor’s investment in financial investment products solicited by such Financial Investment Business Entity (without having to prove fault or causation). With respect to conflicts of interest between Financial Investment Business Entities and investors, the FSCMA expressly requires (i) disclosure of any conflict of interest to investors and (ii) mitigation of conflicts of interest to an acceptable level or abstaining from the relevant transaction.

Regulations on the Class Actions Regarding Securities

The Law on Class Actions Regarding Securities was enacted as of 20 January 2004 and an amendment to such law was enacted as of 10 March 2005, 3 August 2007, 31 March 2010 and 28 May 2013. The Law on Class Actions Regarding Securities governs class action suits instituted by one or more representative plaintiff(s) on behalf of 50 or more persons who claim to have been damaged in a capital markets transaction involving securities issued by a listed company in Korea.

Applicable causes of action with respect to such suits include:

- claims for damages caused by misleading information contained in, or material fact omitted from, a registration statement or investment prospectus;
- claims for damages caused by the filing of a misleading business report, semi-annual report, quarterly report or a document attached thereto or by an omission of a description or representation of a material fact therein;
- claims for damages caused by insider trading, market manipulation or unfair trading; and
- claims instituted against auditors for damages caused by accounting irregularities.

Any such class action may be instituted upon approval from the presiding court and the outcome of such class action will have a binding effect on all potential plaintiffs who have not joined the action, with the exception of those who have filed an opt out notice with such court.

The Personal Debtor Protection Act

The Personal Debtor Protection Act was legislated in January 2024 and enforced from 17 October 2024 in order to regulate the overall management of personal financial claims (monetary claims held by financial companies against debtors who are individuals and not corporations) after delinquency.

Under the Personal Debtor Protection Act, when a financial company intends to accelerate loans, transfer claims, or apply for a housing auction, it must notify the debtor 10 business days in advance of such fact, together with the opportunity to adjust the debt.

The Personal Debtor Protection Act prohibits the imposition of late payment charges to deferred interest for the portion of the debt that would not have been due had the loan not been accelerated, when accelerating the loan in the case of delinquency. In addition, financial companies must waive future interest claims arising from personal financial claims that are impossible or significantly improbable to recover, prior to transferring such claims.

The Act prohibits collecting personal financial claims, etc., for which the debt settlement procedure has not been completed, and mandates financial companies to keep debtors informed of the fact that collection is scheduled to commence and how to exercise the right of defence before initiating the debt collection procedure. Additionally, a limit is adopted for contacting debtors for debt collection, which should not exceed seven times a week, and in principle, if a personal financial debtor requests not to contact at a specific time or by a specific means, the financial companies must follow such request.

When a financial company transfers personal financial claims that have been overdue for more than a period prescribed by Presidential Decree of at least one month, it must evaluate whether the transferee is capable of debt collection in terms of size and expertise of personnel, and establish internal standards for the transfer of claims.

Also, when a financial company entrusts the collection of personal financial claims, it must notify the debtor of such entrustment, evaluate and supervise the debt collection company, and establish internal standards for the entrustment of debt collection.

Furthermore, a personal financial debtor may request a financial company to adjust his/her debt if the personal financial debt is overdue, and if the financial company receives a request for debt adjustment from the personal financial debtor, it must notify the personal financial debtor of the details of the decision within 10 business days from the date of receiving the request.

Meanwhile, the Addenda of the Personal Debtor Protection Act states that, in principle, regulations related to the Personal Debtor Protection Act are applied from the enforcement date, but some regulations differ in terms of the time of application and the regulation target. For example, restrictions on deferred interest apply to claims under agreements newly entered into, renewed, or extended between financial companies and personal financial debtors after the Act enters into force, and regulations related to debt settlement requests apply to cases where personal financial claims become overdue after the Act enters into force. Accordingly, the scope of Mortgage Loans subject to each regulation may vary.

Once the Personal Debtor Security Act comes into force, it may affect the collection process and the scope of the amount collectable from the Mortgage Loans constituting the Cover Pool, so there is no assurance that the Personal Debtor Protection Act would not adversely affect the rights of the Covered Bondholders, the market value of the Covered Bonds and/or our ability or the Cover Pool assets to satisfy our obligations under the Covered Bonds.

KOREAN LEGAL CONSIDERATIONS

The following is a summary of certain Korean legal issues relevant to prospective investors. The following summary is not intended to be exhaustive. Prospective investors should consider the nature of and investment in covered bonds of this type and the political and legal environment of Korea, and should make such further investigations as they, in their sole discretion, deem appropriate.

Insolvency Laws

Overview

The Debtor Rehabilitation and Bankruptcy Act (the “**DRBA**”) is the primary law governing court-supervised insolvency proceedings in Korea.

In the case of rehabilitation proceedings pursuant to Chapter 2 of the DRBA, the ability of secured creditors to enforce their rights to security may be restricted and payment may be subject to rescheduling pursuant to a rehabilitation plan. In bankruptcy proceedings pursuant to Chapter 3 of the DRBA and individual debtor rehabilitation proceedings pursuant to Chapter 4 of the DRBA, however, it is possible for secured creditors to enforce their security interests, subject to certain restrictions.

In addition to the DRBA, the Corporate Restructuring Promotion Act (the “**CRPA**”) may restrict certain creditor financial institutions’ ability to enforce security interests granted by a “Company Showing Signs of Insolvency” as defined in such Act (a “**Failing Company**”). Also, the Act on Structural Improvement of the Financial Industry of Korea (No. 5257 of 13 January 1997), as amended, and any and all successor legislation thereto (the “**ASIF**”) provides regulations regarding improvement of insolvent financial institutions. With respect to individual debtors in financial difficulty, the Korean financial industry’s Agreement among Financial Institutions for Assisting the Credit Recovery Support Plan could restrict a creditor financial institution’s ability to enforce a mortgage or other security granted by an individual debtor. See “— *Individual Work-out Plans*” below.

Debtor Rehabilitation and Bankruptcy Act

The DRBA contains:

- (a) provisions applicable to rehabilitation proceedings under Chapter 2 of the DRBA (hereinafter referred to as “**Chapter 2 Proceedings**”), which primarily deal with rehabilitation of insolvent business entities;
- (b) provisions applicable to bankruptcy proceedings, which deal with liquidation of insolvent business entities and individuals;
- (c) provisions applicable to individual rehabilitation proceedings under Chapter 4 of the DRBA (hereinafter referred to as “**Chapter 4 Proceedings**”), which are applicable only to certain individual debtors who are wage earners or self-employed earners with debts of no more than a certain specified amount; and
- (d) provisions applicable to international insolvency proceedings.

Under the DRBA, the petitioner must specify which procedure he or she wishes to use. For a debtor that has filed for bankruptcy proceedings, a bankruptcy trustee will be appointed to liquidate the assets of the debtor and to distribute the proceeds to its unsecured creditors on a pro-rata basis after the court issues an order preserving the debtor’s assets. Secured creditors remain free to exercise their security interests under bankruptcy proceedings.

On the other hand, the goal of Chapter 2 Proceedings and Chapter 4 Proceedings is to rehabilitate insolvent companies or, as the case may be, individuals. In Chapter 2 Proceedings, secured creditors are not permitted to enforce their security interest. Secured creditors in Chapter 4 Proceedings, however, are permitted to enforce their security interests notwithstanding such Chapter 4 Proceedings (x) unless the court issues an order to suspend or prohibit such exercise during the period after the filing of the petition for Chapter 4 Proceedings but before the court decides to commence Chapter 4 Proceedings, or (y) once the court decides to commence Chapter 4 Proceedings, only after the earlier of (i) the court’s approval of the repayment plan or (ii) the final decision by the court to discontinue such Chapter 4 Proceedings.

The DRBA also makes it easier for the court to set aside transactions which the debtor has entered into with certain shareholders or equity holders of the debtor (“**specially related persons**”), by making the presumption

that the specially related persons, when entering into such transactions acted with the knowledge that entry into such transactions with the debtor would be prejudicial to other creditors of the debtor. For example, transactions entered into by a debtor for, or relating to, the granting of security by, or the extinguishment of obligations of, the debtor within 60 days before the suspension of payment, without any prior existing obligation to do so, may be set aside. However, this 60-day period extends to one year in the case of transactions entered into with specially related persons. Further, gratuitous acts or the equivalent thereof performed by the debtor within six months prior to the suspension of payment, etc. by the debtor may be set aside, and this six-month period extends to one year with regard to transactions entered into with specially related persons.

Chapter 2 Proceedings

Chapter 2 Proceedings (i.e., rehabilitation proceedings) are designed for use by insolvent debtors who wish to rehabilitate themselves. This type of proceeding is closely supervised and controlled by the court so that most of the material actions or decisions of the debtor may be taken by, or made only with the approval of, the court.

All types of legal entities, including joint stock companies, limited liability companies and unincorporated foundations or associations, as well as individuals, may avail themselves of Chapter 2 Proceedings.

The DRBA provides that in Chapter 2 Proceedings, in principle, the debtor itself or, in case where the debtor is a company, its own representative, and not a third party, will be appointed as receiver with authority to act on behalf of the debtor, subject to supervision of the court. It is also possible in Chapter 2 Proceedings for a legal entity to be appointed as the receiver. If a legal entity is appointed as the receiver, the legal entity should designate one of its directors to exercise the rights and powers conferred on it as a receiver and report such designation to the court.

Under the DRBA, the debtor may file a petition with the court for commencement of Chapter 2 Proceedings where either, (i) the debtor cannot repay its debts without causing material damage to the continuance of the debtor's business, or (ii) events leading to bankruptcy of the debtor may arise. If the debtor is a joint stock company or a limited liability company, (a) a creditor who has claims in an amount not less than 10% of the debtor's paid-in capital, or (b) a shareholder or equityholder who holds shares or an equity interest constituting not less than 10% of the debtor's paid-in capital, may also apply for commencement of Chapter 2 Proceedings. If the debtor is not a joint stock company or a limited liability company, a creditor who has claims in an amount of not less than ₩50 million or an equityholder who holds an equity interest of not less than 10% of the debtor's equity can apply for commencement of Chapter 2 Proceedings.

When the debtor itself or a creditor or equityholder of the debtor that satisfies the above requirements applies for commencement of Chapter 2 Proceedings, the court may, upon the request of interested parties or in its sole discretion, but after hearing the opinion of the management committee, issue a preservation order against individual assets of the debtor, and may issue an injunction against bankruptcy proceedings or enforcement proceedings initiated by the debtor's secured or unsecured creditors. Further, if the court determines that the objectives of the Chapter 2 Proceedings may not be achieved through stay order, it may issue a comprehensive stay order against enforcement proceedings initiated by creditors against the assets of the debtor. If a comprehensive stay order is issued, enforcement proceedings that are already in progress will be suspended, and the court may cancel such enforcement proceedings upon the request of the debtor or, as the case may be, the receiver, if deemed necessary for the continuance of the debtor's business. However, if the court determines that a creditor may sustain unjust damages as a result of such comprehensive stay order, the court may revoke the order for that particular creditor upon request of such creditor.

When a petition for commencement of Chapter 2 Proceedings is filed, the court is required to determine within one month of the date of petition whether to commence such proceeding, although such period may be extended by the court. Once the commencement of Chapter 2 Proceedings is declared, most claims against the debtor that arose prior to such commencement date are automatically stayed, while claims arising after the commencement date are generally not subject to the Chapter 2 Proceedings. Also, the court will appoint a receiver with the power to conduct all of the debtor's business and manage all of the debtor's properties, subject to court supervision.

As a general rule, any creditor whose claim against the debtor arose prior to the commencement of the Chapter 2 Proceedings, whether secured or unsecured, may not enforce such claims other than as provided for in the rehabilitation plan adopted at the meeting of interested parties and approved by the court. The rehabilitation plan may alter or modify the rights of creditors or shareholders. Accordingly, there can be no assurance that the rights of the creditors, whether secured or unsecured, will not be adversely affected by a Chapter 2 Proceedings.

Further, a creditor who intends to participate in the rehabilitation plan must file a proof of claim with the court within the period fixed by the court if the receiver had not affirmatively recognised such claim.

In Chapter 2 Proceedings, creditors are classified into three basic categories: (i) creditors with unsecured rehabilitation claims, (ii) creditors with secured rehabilitation claims, and (iii) creditors with claims for the common benefit. The former two categories of creditors are subject to the Chapter 2 Proceedings and generally may not receive payment or repayment for their respective claims other than as provided in the rehabilitation plan. Creditors with claims for the common benefit are not subject to the rehabilitation plan, and include, among others, those creditors whose claims either arose after the commencement of the Chapter 2 Proceedings (subject to certain exceptions) or those creditors whose claims were approved by the court during the preservation period.

If the debtor fails to perform its payment obligations in accordance with its rehabilitation plan, affected creditors are not permitted to initiate lawsuits or enforce their security interests. Instead, they (or the receiver of the debtor) may only request the court to amend the rehabilitation plan. However, if such amendment could have an adverse effect on creditors with rehabilitation claims or shareholders of the debtor, the court may amend the rehabilitation plan, in principle, only after obtaining approval for the amendment through an affirmative vote at a meeting of interested parties. If it becomes apparent, either before or after the court approves the rehabilitation plan, that the debtor cannot be rehabilitated, the court may, at its sole discretion or upon the request by the receiver or a creditor with a rehabilitation claim, issue an order to discontinue the Chapter 2 Proceedings.

Bankruptcy Proceedings

A bankruptcy proceeding is a court administered process whose purpose is to liquidate an insolvent debtor's assets and distribute the proceeds therefrom to the debtor's creditors on a *pro rata* basis. Bankruptcy proceedings formally commence upon an adjudication by the court that the debtor is indeed "bankrupt." The court will make its determination as to whether grounds for bankruptcy exist based on the written pleadings and oral arguments of the petitioner. The adjudication of bankruptcy also has the effect of automatically staying all unsecured creditors from enforcing their claims against the bankruptcy estate.

The bankruptcy trustee appointed by the court is vested with the exclusive right to manage and dispose of the bankruptcy estate and to conduct an investigation and assessment of the bankruptcy estate. The DRBA permits a legal entity to be appointed as the bankruptcy trustee of the bankruptcy proceeding. If a legal entity is appointed as the bankruptcy trustee, it shall designate one of its directors to exercise the rights and powers conferred to it as bankruptcy trustee and shall report such designation to the court. After reviewing the reports prepared by the bankruptcy trustee, the creditors will have a meeting and vote on a resolution deciding whether to continue or discontinue the debtor's business and the manner of safeguarding the bankruptcy estate.

Subject to certain statutory limitations and approval by the inspection commissioners, the bankruptcy trustee has the power to liquidate the bankruptcy estate, and to determine the manner and timing of such liquidation. The bankruptcy trustee distributes the proceeds from the liquidation of the bankruptcy estate to the creditors in proportion to their claims. The distribution is made in several stages. Claims entitled to distribution are differentiated according to their priority of claims. Bankruptcy creditors are classified as follows in accordance with their priorities: (i) secured creditors, who have the right to enforce their securities on the same terms as would be available if the debtor were not in bankruptcy; (ii) creditors with estate claims, which include costs of judicial proceeding, tax claims, wages and payment of severance, management expenses incurred in connection with management, liquidation and distribution of the bankruptcy estate, and other claims arising from administration of the bankruptcy estate; (iii) creditors with other statutorily preferred claims (including policyholders' claims against an insurance company to the extent of the amount equal to the relevant reserves); (iv) general claims; and (v) less preferred claims.

The DRBA ensures that the priority rights of tenants under the Residential Tenant Protection Act and the Commercial Building Tenant Protection Act are also protected under bankruptcy proceedings.

Chapter 4 Proceedings

Chapter 4 Proceedings (i.e., individual rehabilitation proceedings) are available to persons (i) who are unable, or are likely to become unable, to repay debts when they become due, (ii) who are considered to have the ability to earn consistent wage income or business income in the future, and (iii) whose debt is no more than (x) ₩1.5 billion in case of debts secured by a mortgage, pledge, *jeonse-kwon* and certain other preferential rights, and (y) ₩1 billion in case of any other debts and the amount of debts is calculated as of filing of a petition. Only

debtors, and not creditors, are able to petition the court for Chapter 4 Proceedings. When a debtor files a petition for Chapter 4 Proceedings, the court may suspend or prohibit bankruptcy proceedings, compulsory execution, provisional attachment, establishment or enforcement of security or the repayment of claims until the court decides whether to commence Chapter 4 Proceedings. In principle, the court must make such decision within a month after the filing of the petition.

After the commencement order is issued by the court, any bankruptcy proceedings, Chapter 2 Proceedings or actions mentioned above are automatically suspended or prohibited. In addition, after the commencement order is issued by the court, the establishment or enforcement of security interests is automatically suspended or prohibited until the earlier of the date (i) when the repayment plan is approved or (ii) when the approved Chapter 4 Proceedings are later finally determined to be discontinued. Subject to the automatic suspension or prohibition as described above, secured creditors have the right to enforce their security interests on the same terms as would be available if the debtor was not in Chapter 4 Proceedings. In principle, the debtor retains management and disposal rights over his/her assets even after the issuance of a commencement order for Chapter 4 Proceedings. The debtor must submit a list of creditors at the time of application, and any claims that are not disputed by the relevant creditor will be settled as indicated on the creditors list. Claims that are disputed by creditors will be settled through a court decision. The debtor must, in principle, submit a repayment plan within 14 days of the application, and the repayment period must not exceed three years from the commencement of repayment.

The repayment plan must be approved by the court and the court may order its amendment. One important requirement for approval is that the total amount of repayment must not be less than the amount that creditors would have received in a bankruptcy proceeding, unless creditors consent to the court's approval despite the failure of the individual debtor's repayment plan to meet such requirement. The DRBA sets out a list of claims that have priority in payment to the claims listed in the creditor list (e.g., expenses for the Chapter 4 Proceedings, certain taxes, salaries for the debtor's employees, etc.). Once the debtor completes repayment in accordance with the repayment plan, the court will issue an acquittal order with respect to the debtor.

International Insolvency Proceedings

The representative in a foreign insolvency proceeding (i.e., a person or entity recognised by the applicable court as the receiver or representative in the foreign insolvency proceeding) may file with the Korean court for approval of such foreign insolvency proceeding. Once the foreign insolvency proceeding is approved by the Korean court, the representative in such proceeding may apply for insolvency proceedings in Korea or participate in the insolvency proceeding that is already in progress in Korea. On the other hand, the receiver or bankruptcy trustee in the insolvency proceeding in Korea may, for purposes of such proceeding, take actions in foreign jurisdictions to the extent permitted by applicable laws.

Individual Work-out Plans

According to the Act on Supporting the Financial Life of the Low Income Households which took effect on 23 September 2016 and as amended from time to time, the Credit Counselling and Recovery Service entered into, with, among others, the participating financial institutions, and revised from time to time, "the Credit Recovery Support Agreement" (the "**Individual Work-out Plan Agreement**"), which took effect on 23 September 2016, in order to support debt adjustment of the individual debtors.

The Individual Work-out Plan Agreement applies to sole practitioners and to individuals who have a poor credit history, who owe ₩1.5 billion or less (secured debt of ₩1.0 billion or less and unsecured debt of ₩0.5 billion or less) to financial institutions, and, as determined by the Review Committee (defined below), (i) whose income exceeds the minimum cost of living or (ii) who are able to repay their debts. The individual work-out plans under the Individual Work-out Plan Agreement consist of (i) the swift work-out plan for debtors owing to two or more financial institutions where delinquency period of one of the debts is between 1 day and 30 days, (ii) the pre-work-out plan for debtors owing to two or more financial institutions where delinquency period of one of the debts is between 31 day and 89 days and (iii) the regular work-out plan for debtors owing to one or more financial institutions where delinquency period of one of the debts is 3 months or more. Any individual who satisfies one of the foregoing requirements and does not fall within any of the disqualifications under the Individual Work-out Plan Agreement (e.g., any loan or credit facilities incurred in the six-month period prior to the application is 30 per cent. or more of the aggregate outstanding credit balance) may apply for protection under the scheme to the Credit Counselling and Recovery Service.

On receipt of such an application, the Credit Counselling and Recovery Service notifies each of the debtor's creditor financial institutions and requests them to certify the amount owed to them and their opinion on the

application. From the time that the financial institutions receive such a notice, they are subject to a moratorium on their ability, among other things, to enforce any security, including any residential mortgage that they hold for the relevant debt.

The application is then considered by a review committee (the “**Review Committee**”) established under the Individual Work-out Plan Agreement. The Review Committee can recommend a plan (which can be either a “**Swift Work-out Plan**”, a “**Pre-Work-out Plan**” or a “**Regular Work-out Plan**”) for the rehabilitation of the debtor, including (a) in the case of a Regular Work-out Plan, extending the repayment period to up to eight years (for unsecured debt) or 20 years (for secured debt), adjusting interest rates, setting up an instalment plan for a period not exceeding eight or 20 years, granting a grace period of up to three years (with annual interest rate during the grace period of up to 2 per cent.) and writing off the principal amount of the outstanding debt (i) in respect of the debt written-off by a financial institution, in case of unsecured debt up to an amount equal to from 20 per cent. to 70 per cent. thereof, and in case of secured debt, the amount exceeding the value of the collateral or (ii) in respect of the debt not written-off, up to an amount equal to from 0 per cent. to 30 per cent. thereof only if the period elapsed after the occurrence of such debt is not less than 12 months and the delinquency period is not less than 3 months (while all of the interest and default interest due on the debts may be written off irrespective of such debt being written off or not, other than the secured debt not written-off, the default interest exceeding the amount of the contracted secured obligations) and in case of the outstanding debt only consisting of the interest or overdue interest, the amount of such debt up to an amount equal to 90 per cent. thereof, (b) in the case of a Pre-Work-out Plan, extending the repayment period to up to 10 (for unsecured debt) or 20 (for secured debt) years, adjusting interest rates, setting up an instalment plan for a period not exceeding 10 or 20 years, granting a grace period of up to three years (with annual interest rate during the grace period of 2 per cent.) and writing off all of the default interest due on the unsecured debt not written-off, the default interest exceeding the amount of the contracted secured obligations in case of the secured debt not written-off and in case of the outstanding debt only consisting of the interest or overdue interest, the amount of such debt up to an amount equal to 90 per cent. thereof and (c) in the case of a Swift Work-out Plan, extending the repayment period to up to 10 (for unsecured debt) or 20 (for secured debt) years, adjusting interest rates, setting up an instalment plan for a period not exceeding 10 or 20 years, granting a grace period of up to three years (with annual interest rate during the grace period of the contracted interest rates up to 15 per cent., but 10 per cent. for credit card debts) and writing off all of the default interest due on the unsecured debt not written-off, the default interest exceeding the amount of the contracted secured obligations in case of the secured debt not written-off and in case of the outstanding debt only consisting of the interest or overdue interest, the amount of such debt up to an amount equal to 90 per cent. thereof, as applicable.

The Swift Work-out Plan, Pre-Work-out Plan or Regular Work-out Plan, as applicable, of the Review Committee is put to a vote of the creditors of the relevant debtor and, to be adopted, must be approved by creditor financial institutions representing more than 50 per cent. of the debtor’s outstanding unsecured debt and more than 50 per cent. of the debtor’s outstanding secured debt. If the Swift Work-out Plan, Pre-Work-out Plan or Regular Work-out Plan is rejected, the Review Committee may submit a revised Swift Work-out Plan, Pre-Work-out Plan or Regular Work-out Plan, as applicable, to the creditor financial institutions, which must be approved by the same majorities.

If the Swift Work-out Plan, Pre-Work-out Plan or Regular Work-out Plan is adopted, the creditor financial institutions are bound by its terms. Any creditor financial institution which violates the Swift Work-out Plan, Pre-Work-out Plan or Regular Work-out Plan, for example, by seeking to enforce its security, could be subject to a penalty by the Credit Counselling and Recovery Service of an amount not exceeding ₩2 million.

Corporate Restructuring Promotion Act

The original Corporate Restructuring Promotion Act (Act No. 6504) was enacted on 14 August 2001 in order to facilitate the out-of-court restructuring of insolvent companies. This law expired on 31 December 2005, but new Corporate Restructuring Promotion Acts were enacted on 3 August 2007 (expired on 31 December 2010), 19 May 2011 (expired on 31 December 2013), 1 January 2014 (expired on 31 December 2015), 18 March 2016 (expired on 30 June 2018) and 16 October 2018 (expired on 15 October 2023) and the version of the CRPA that is currently in effect was enacted and implemented on 26 December 2023 and will continue in force until 25 December 2026, three years from the implementation date.

The following is a summary of the key provisions of the CRPA. Under the CRPA, “Financial Claims” are defined as those claims arising from the provision of credit to the third party or the company and “Company” is defined under the CRPA as a company established under the Korean Commercial Code or other person

performing profit-making activities and excludes certain public institutions, finance companies (such as the Issuer), foreign companies. “Provision of Credit” is defined in the CRPA as any transaction determined by the FSC to fall under any of the following:

- loans;
- purchase of promissory notes and debentures or bonds;
- equipment leasing;
- payment guarantees;
- providing advance payments on acceptances and guarantees under a payment guarantee;
- any transaction which may cause a loss to a Financial Creditor as a consequence of a payment failure by its counterparty; or
- any transaction which may have in substance the same effect to a Financial Creditor as the transactions set out above even though it may not have provided credit.

“Financial Creditors” are those creditors with Financial Claims. Accordingly, both onshore and offshore financial institutions, as long as they have Financial Claims, are subject to the CRPA. A Failing Company is determined, on the basis of a credit evaluation carried out in the manner set out in the CRPA by its ‘main creditor bank’.

Under the CRPA, the main creditor bank of a Failing Company is required to take or arrange one of the following actions if it determines that there is a possibility that the financial condition of the Failing Company may be rehabilitated or brought back to normal in accordance with its business plan:

- convocation of the first meeting of committee of Financial Creditors (the “**Creditor Committee**”) to decide on assumption of management of the Failing Company by the Creditor Committee; or
- assumption of management of the Failing Company by the main creditor bank.

In the event that the main creditor bank of the Failing Company decides to convoke the first meeting of the Credit Committee to decide on the management of the Failing Company, the main creditor bank may require the Financial Creditors to grant a moratorium on the enforcement of claims (including the enforcement of security interest) until such meeting of the Creditor Committee. If a Financial Creditor enforces its claim against the Failing Company after the request to suspend enforcement of claims, it shall be required to unwind the enforcement action to return to the state that was in existence in case where the Creditor Committee decides to assume management of the Failing Company. In addition, at the first meeting of the Creditor Committee, Financial Creditors representing at least 75% of the outstanding credit to the Failing Company by the Financial Creditors present at such meeting may declare a moratorium for up to three months if an investigation of the Failing Company’s financial status is necessary or up to one month if such investigation is not necessary (which may be extended by an additional month).

If the Creditor Committee cannot agree on the corporate repayment plan by the date the moratorium period ends, the Creditor Committee’s management of the Failing Company shall be deemed to have terminated. The Creditor Committee can approve the rescheduling of the debt owed by the Failing Company or provide new credit to it with the approval of Financial Creditors representing not less than 75% of all outstanding credit (or secured credit in case of rescheduling of the debt).

A Creditor Financial Institution which has opposed the resolutions of the Creditor Committee in respect of the commencement of management of the Failing Company by the Creditor Committee or the rescheduling of claims or provision of new credit or the extension of the management by the Creditor Committee (the “**Opposing Financial Creditor**”) may, within seven days of such resolution, request the Financial Creditors that have approved such resolution (the “**Approving Financial Creditors**”) to purchase its outstanding claims against the Failing Company by notifying the main creditor bank of the type and number of claims. The Approving Financial Creditors shall purchase such claims within six months from the last day of such request period.

The purchase price and terms of such purchase shall be determined by mutual agreement of the Approving Financial Creditors and the Opposing Financial Creditor. The purchase price paid for claims held by the Opposing Financial Creditor shall not be less than the amount that may be recovered by the Opposing Financial Creditor through liquidation of the Failing Company.

The Act on the Structural Improvement of the Financial Industry

The ASIF provides regulations regarding the improvement of insolvent financial institutions. According to the ASIF, where any financial institution's financial status does not meet certain standards such as its capital adequacy ratio or any financial institution's financial status falls below certain standards due to the occurrence of a major financial scandal or accrual of non-performing loans, the FSC, in order to protect the financial institution from becoming insolvent and help the financial institution manage its business soundly, may recommend, request or order the financial institution concerned or the officers of such financial institution to implement the following measures or order them to furnish its implementation plan, including but not limited to:

- (a) admonitions or warnings with respect to the financial institution or its officers;
- (b) capital increase or capital deduction, disposal of property holdings or reduction in the number of its branches and downsizing;
- (c) ban on the acquisition of such assets as claims with high risks of default or assets prone to price fluctuations, or restrictions on the receiving of deposits at exorbitantly high interest rates;
- (d) suspension of officers' duties or appointment of managers to act on behalf of officers;
- (e) amortisation or consolidation of stocks;
- (f) suspension of all or part of its business;
- (g) merger with or assumption of a financial institution;
- (h) business transfers or contract transfers pertaining to financial transactions such as deposits or loans (hereinafter referred to as "**contract transfers**"); and
- (i) other measures equivalent to those listed in paragraphs (a) through (g) above, which are deemed necessary to improve any financial institution's financial soundness (collectively, "**timely corrective measures**").

In addition, managers may be appointed by the FSC pursuant to the ASIF in connection with any timely corrective measures requested by the FSC. Such managers may have the authority to make any decisions within the scope of authority of such officer. Such managers may also have the authority to manage and dispose of any assets and liabilities in connection with any decisions made by the FSC with respect to contract transfers.

When the FSC intends "timely corrective measures" to be taken, it shall in advance determine and notify the standards and contents of such measures.

Among the timely corrective measures, certain measures, such as suspension of all business, transfer of all business, transfer of all contracts or orders on amortisation of the total stocks and any equivalent measures, may only be taken if (i) the financial institution is insolvent or (ii) its financial status falls short of certain standards and it is deemed to be a credit risk or to prejudice the rights and interests of depositors. In addition, the ASIF also stipulates measures to be taken by the Government to support insolvent institutions and financial institutions merging with the insolvent financial institutions.

According to the ASIF, the FSC, where any financial institution fails to execute any request or order regarding timely corrective measures, may, on the recommendation of the Governor of the FSS, order the officers of the financial institution concerned to suspend the execution of their business and may appoint managers to conduct the business on behalf of such officers. In cases where:

- (a) an insolvent financial institution fails to execute an order regarding timely corrective measures or is unable to execute such order;
- (b) the merger of an insolvent financial institution under an order or arrangement given and made under the provisions of the ASIF fails to complete;
- (c) where an insolvent financial institution is deemed incapable of either complying with orders or merging with or being acquired by another entity under the provisions of the ASIF due to its liabilities clearly exceeding its assets; or
- (d) an insolvent financial institution prejudices depositors' rights and interests and becomes a credit risk after it has been unable to pay claims including deposits and repay borrowings due to its poor financial standing,

the FSC may take necessary measures, such as a decision for the transfer of contracts, suspension of business for a certain period against the insolvent financial institution, and cancellation of the authorisation or permission of its business.

Where financial institutions have their authorisation or permission to carry on business cancelled pursuant to the above, they shall be dissolved. If a decision for the transfer of contracts mentioned above is made, the rights and duties of the insolvent financial institution under the contracts which are subject to transfer shall be transferred to the financial institution which takes over those contracts (hereafter referred to as the “**undertaking financial institution**”) at the time when such decision is made. In relation to this, the insolvent financial institution and the undertaking financial institution shall announce the transfer of the contracts in two or more daily newspapers. When the announcement is made, the legal relations of creditors, debtors, pledgors or other interested persons to the insolvent financial institution shall remain the same with the undertaking financial institution.

The FSC, where any financial institution is dissolved or becomes bankrupt, may, notwithstanding the provisions of the Korean Commercial Code and the DRBA, recommend a liquidator or a receiver to be appointed from among financial experts and officers or employees of the KDIC. In addition, when the FSC knows that the total amount of debt of a financial institution exceeds the total amount of its assets, it may make an application for declaration of bankruptcy.

Under the ASIF which was amended on 29 December 2020 and took effect from 30 June 2021, the FSC may temporarily suspend the termination or liquidation by the counterparty of the eligible financial transaction (as defined under the DRBA, and including the financial derivative transaction such as forward deliveries, options, and swaps the underlying assets of which are the prices or interest rates such as currencies, securities, equity interests, commodities, credit risk, energy, weather conditions, freights, frequencies, environment, etc., or any indexes or indicators based on such prices or interest rates) entered into between the domestic systemically important financial institution and such counterparty on the ground of occurrence of any of the following measures for the period from the day on which the FSC’s decision on temporary suspension becomes effective to the end of the following business day:

- (a) designation of such domestic systemically important financial institution as an insolvent financial institution under the ASIF;
- (b) designation of such domestic systemically important financial institution as an insolvent financial company under the Depositor Protection Act;
- (c) issuance of the timely corrective measures against such domestic systemically important financial institution; or
- (d) other measures equivalent to those provided in items (a) to (c).

The FSC’s temporary suspension takes effect when it makes a decision to such effect. The counterparty to the eligible financial transaction cannot terminate or liquidate such eligible financial transaction on the ground of any measure mentioned in the preceding paragraph even if the temporary suspension period expires if such eligible financial transaction falls within any of the following cases:

- (a) the case where such eligible financial transaction remains outstanding in such domestic systemically important financial institution the capital of which has been increased through the capital injection by the Government and/or the KDIC under the ASIF; or
- (b) the case where such eligible financial transaction is transferred to the undertaking financial institution in accordance with the FSC’s decision for the transfer of contracts under the ASIF.

General Laws Relating to the Mortgage Loan Business

There is no specific legislation in Korea for regulating mortgage loan businesses other than basic private laws, including, among others, the Civil Code, the Civil Enforcement Act and the Registration of Real Estate Act. Financial institutions carrying on mortgage loan businesses, however, are subject to specific laws that regulate such financial institutions, such as the Bank Act, the Specialised Credit Finance Business Act and the Insurance Business Act. Commercial banks, credit specialised finance companies and insurance companies must comply with the relevant laws and regulations in originating and servicing mortgaged loans and are regulated by the FSC under such laws.

Keun-Mortgages

The most frequently used form of loan security for residential property in Korea is the *Keun*-mortgage, which differs from a more traditional mortgage. With more traditional mortgages, a mortgagee's rights are automatically extinguished upon satisfaction of the underlying debt, whereas with a *Keun*-mortgage, the mortgagee's rights are not automatically extinguished upon satisfaction of the underlying debt. Instead, a mortgagee's rights are extinguished when the term of the *Keun*-mortgage agreement expires or if terminated earlier by the parties. Furthermore, the amount of the secured claim may be increased or decreased within the maximum amount as agreed upon by the mortgagee and the borrower of the secured claim (which is duly registered in the relevant real estate registry) during the term of the *Keun*-mortgage agreement. Since the mortgage rights and obligations are not automatically extinguished, the contracting parties are not required to enter into and record separate mortgage agreements each time a subsequent loan is made.

Keun-mortgages can be enforced in the same manner as various other real estate rights, including enforcement through petition for auction and entitlement to distribution in accordance with recorded priorities.

Korea is a "race" jurisdiction that assigns claim priority in chronological order according to the date of the registration of the mortgages and other security interests. Statutory liens are exceptions to this rule and may rank senior to prior recorded mortgages and other security interests.

Fixing of Keun-mortgage

Unless otherwise agreed in the relevant agreement, in general, the approval or consent from the borrower is not required for the transfer of a mortgage. In cases where the mortgage is a *Keun*-mortgage, however, the secured claims must be fixed prior to the transfer of such mortgage. If the secured claims are not fixed, consent from the borrower in order to fix the secured claims is required.

However, the Korean Covered Bond Laws provide that if an underlying asset in the Cover Pool is a claim secured by *Keun*-mortgage and such claim is being disposed of in accordance with the Korean Covered Bond Laws, the *Keun*-mortgage may be transferred together with the secured claim prior to the fixing of the principal of such claim secured by the *Keun*-mortgage.

General Description of Judicial Auction Laws in Korea

General

A mortgagee of record, a creditor in possession of a validly notarised promissory note or a judgement creditor may apply for a court auction of real estate. All foreclosures of real estate based on general claims or mortgage loans must be carried out through a judicial auction. Nevertheless, financial institutions generally use mortgage agreements which provide that, if a mortgagor consents, creditors may dispose of the mortgaged property by any method that is reasonable and customary, with the proceeds of such disposition being applied to satisfy its secured obligations. The procedures for auction are governed by the Civil Enforcement Act.

Requirements for Exercising Remedies

The Gyongmae Shinchung, or petition for auction, must be filed with the relevant court having jurisdiction over the district in which the real estate is located. The petition for auction must set forth supporting facts and grounds for requesting an auction, and must be accompanied by various documents including a copy of the mortgage agreement, a certified copy of the court register relevant to the subject property and a registration tax payment certificate.

The court will order an appraisal to determine the value of the real estate. Fees and expenses incurred in connection with an auction generally amount to between 2 and 3% of the real estate's appraised value. In addition, a registration tax of 0.2% of the claim amount and a local educational surtax of 20% of the registration tax must be paid to the relevant municipal office. This registration tax is separate and distinct from the registration tax imposed on the transfer of title to the property.

Procedures for Auction

Once a petition for auction has been filed, the court will examine the petition and the supporting documents and will issue its order to commence the auction (usually within two to three days of the petition). Typically, within seven days, the court order for auction is then entered in the Deungki-Bu (real estate registry) of the subject property.

The first auction date is generally set approximately five to six months from the date of petition filing. In the absence of any objection filed by the mortgagor or any other interested party, the auction will take place on the date set by the court. On the day of the auction, bidders must deposit 10% of the minimum price set by the court with the court unless the court decides otherwise. Distribution of auction proceeds will take place approximately 70 to 80 days after the auction date. However, it is not common that the property is sold at the first auction, thus necessitating subsequent auctions. A subsequent auction date is set for a date approximately one month following the first auction date. Each time an auction closes without a successful bid, the minimum price is lowered by 20 to 30%.

There are no restrictions preventing the mortgagee of a property to be auctioned from bidding in the auction for such property. A mortgagee may decide to purchase such property if the minimum auction price falls below a certain level. If a mortgagee is selected as the successful bidder, then such mortgagee may off-set its claim amount against its bidding price. However, the mortgagee purchaser must still pay in cash the amount sufficient to cover the senior claims and statutory liens having priority over its claim.

Priority of Distribution

Although priority among mortgages is determined by chronological order of their registration with the court, certain statutory liens and expenses (arising by operation of law) are given priority over registered mortgages. The statutory liens and expenses that have priority over mortgage claims which are registered prior to the due date of tax claims on the auctioned real estate are as follows (listed in the order of priority):

1. Auction expenses;
2. Refunds of Super-Priority Right for Small Leases up to the statutory limit on residential properties (see “ — *Key Money Deposit Protection*” below); back wages of the mortgagor’s employees for the last three months of employment, severance payments accrued within the last three years and accident compensation allowances under the Labour Standards Act;
3. Certain national taxes and additional dues thereon (e.g., inheritance tax, gift tax and asset revaluation tax) and local taxes and additional dues thereon (e.g., property tax, aggregate real estate tax, city planning tax and common facility tax) directly connected with the auctioned real estate; and
4. Mortgage claims and *jeonse-kwon* claims registered prior to the due date of tax claims/refund of key money deposit having Priority Rights for residential properties (see “ — *Key Money Deposit Protection*” below).

For mortgage claims registered after the due date of tax claims on the auctioned real estate, other national and local taxes (lower in priority than those identified in paragraph 3 above) would have priority over the mortgage claims.

With respect to the priority among the mortgage claim, a *jeonse-kwon* claim and the refund of the key money deposit, priority is determined by chronological order of their registration with the court (in the case of a mortgage claim and a *jeonse-kwon* claim) or satisfaction of all the requirements as specified in “ —*Rights of Tenants of Residential Leases—Priority Right*” below (in the case of refund of the key money deposit) (see “ —*Key Money Deposit Protection*” below for more detail).

Key Money Deposit Protection

It is common practise in Korea for tenants to pay a lump sum deposit, known as a “key money deposit,” to be held by a landlord until the expiration of a lease. During the lease term, the tenant is not required to make monthly rental payment. Instead, the landlord is free to invest the key money deposit and keep the proceeds thereof in lieu of such monthly rental payment. Upon the termination or expiration of the lease, the landlord is required to return the key money deposit to the tenant without any interest thereon.

Jeonse-kwon

A *jeonse-kwon* is a type of mortgage granted by a lessor to a lessee as security for the repayment of a lessee’s key money deposit and allows the lessee to occupy the leased premises until the later of the date on which (i) the lease term expires or (ii) the lessor returns the key money deposit to the lessee. A *jeonse-kwon* must be registered with the court. Upon such registration, the lessee with the *jeonse-kwon* is afforded similar protections as a mortgagor and can initiate foreclosure proceedings against the lessor/debtor upon the expiration or termination of

the lease. Typically, a *jeonse-kwon* is granted on the building and not on the land. With respect to priority between a mortgage claim and a *jeonse-kwon* claim, priority is determined by chronological order of their registration with the court.

Rights of Tenants of Residential Leases

Under the Residential Tenant Protection Act, there are three levels of protection that are afforded to tenants of residential leases (even if they are not registered with the real estate registry) for their key money deposits: the Super-Priority Rights for Small Leases, the priority right (the “**Priority Right**”) and the holdover right (the “**Holdover Right**”).

Super-Priority Right for Small Leases

In order to secure a Super-Priority Right for Small Leases, the tenant must take possession of the relevant property (“**Occupancy Requirement**”) and file his relocation to the property with the local government office (“**Move-in Report Requirement**”). In addition, the key money deposits must be equal to or less than the following amounts (depending on where the property is located): (a) ₩165 million for Seoul, (b) ₩145 million for “concentration control region” (as defined in Seoul Metropolitan Area Readjustment Planning Act but other than Seoul), Sejong Metropolitan Autonomous City, Yongin, Hwaseong and Gimpo, (c) ₩85 million for other metropolitan areas (such as Busan, Daegu etc.) Ansan, Gwangju, Paju, Ichoen and Pyeongtaek and (d) ₩75 million for other areas. The tenants satisfying the above requirements have super-priority rights in terms of refund of key money deposits over all mortgages and other security interests on the property for the following amounts out of the total amount of the key money deposit: (a) ₩55 million for Seoul, (b) ₩48 million for “concentration control region” (other than Seoul), Sejong Metropolitan Autonomous City, Yongin, Hwaseong and Gimpo, (c) ₩28 million for other metropolitan areas (such as Busan, Daegu etc.) Ansan, Gwangju, Paju, Ichoen and Pyeongtaek, and (d) ₩25 million for other areas; provided that such amounts do not exceed one-half of the sale or auction price of the relevant property.

Priority Right

The requirements for a Priority Right are the Occupancy Requirement and Move-in Report Requirement, plus an additional requirement that the lease document be fixed date-stamped by a notary public, post office, or other government office. Upon the perfection of the Priority Right, the tenant has priority in terms of the refund of the entire key money deposit over all mortgages that are registered after the date on which all of the requirements are satisfied.

Holdover Right

The requirements for a Holdover Right are the Occupancy Requirement and the Move-in Report Requirement. Upon the perfection of the Holdover Right, the tenant has the following rights: (i) if there are no other mortgages perfected ahead of the tenant’s rights at the time of auction sale, then the tenant is deemed to have a Holdover Right, in which case the acquirer of the relevant property pursuant to an auction must assume all of the terms and conditions of the lease, including the key money deposits unless the acquirer chooses to terminate the lease and refund the entire amount of the key money deposit; and (ii) if there is any mortgage perfected ahead of the tenant’s rights, then the tenant is not deemed to have Holdover Right, in which case the acquirer of the relevant property pursuant to an auction need not assume any of the terms and conditions of the lease, including the key money deposits.

Generally, if a tenant has a Holdover Right, the acquirer of the relevant property will reduce the purchase price by the amount of the Holdover Right which it is obliged to assume. If a tenant refuses to vacate the premises, the acquirer may take the following actions to evict the tenant.

Within six months after the acquirer has paid the purchase price for the property, the acquirer may obtain an eviction order from the court that handled the auction process to evict the tenant. If the tenant refuses to vacate the premises, the tenant may be forcibly removed by court appointed persons. Following the six-month period, the acquirer has to initiate an eviction proceeding, which is separate from the auction proceeding and handled by a different court. In such case, it can take from six months to one year to obtain a court order to evict the tenant. As such, it is more efficient and less time consuming for the acquirer to obtain the eviction order during the six-month period following the payment of the purchase price. Moreover, the acquirer may seek an injunction to enjoin the tenant from transferring the lease to a third party.

Objections

An interested party, including the mortgagor, may file an objection to an auction at any time prior to a successful bidder paying the balance of its bid amount. Such parties may also file an objection to the declaration of the successful bidder within one week of such declaration. Objections can be made based on either procedural (e.g., irregularities or defects in the auction procedure) or substantive (e.g., defects in the title of the property or the underlying obligation) grounds. An objecting party may apply for an injunction (to delay the auction) by filing an action challenging the validity of the mortgagee's underlying claim and posting a bond that is usually equivalent to all or substantial part of the amount claimed by the mortgage in the auction petition.

Enforcement of English Judgements in Korea

A judgement duly obtained in the courts of England will be recognised by the Korean courts without re-examination of the merits of the case if:

- (1) such judgement was finally and conclusively given by a court having valid jurisdiction in accordance with international jurisdiction principles under Korean law and applicable treaties;
- (2) the Issuer was duly served with a service of process, other than by publication or similar means, in sufficient time to enable the Issuer to prepare its defence in conformity with applicable laws or responded to the action without being served with process;
- (3) in view of the substance of such judgement and the procedures of litigation, such judgement is not contrary to the public policy of Korea; and
- (4) judgements of the courts of Korea are accorded reciprocal treatment under in England or (ii) the requirements for the recognition of a foreign judgement in England are neither manifestly inequitable nor substantially different in material respects from the requirements for recognition of a foreign judgement in Korea.

TAXATION

Korea

The information provided below does not purport to be a complete summary of Korean tax law and practise currently applicable. Prospective investors who are in any doubt as to their tax position should consult with their own professional advisers.

The taxation of non-resident individuals and non-Korean corporations (“**Non-Residents**”) generally depends on whether they have a “Permanent Establishment” (as defined under Korean law and applicable tax treaty) in Korea to which the relevant Korean-sourced income is attributable or with which such relevant Korean-sourced income is effectively connected. Non-Residents without such a Permanent Establishment in Korea are taxed in the manner described below. Non-Residents with such Permanent Establishment are taxed in accordance with different rules.

Income Tax and Corporation Tax on Interest

Interest on the Covered Bonds paid to Non-Residents (excluding payments to their Permanent Establishment in Korea) is exempt from income tax and corporation tax (whether payable by withholding or otherwise) pursuant to the Special Tax Treatment Control Law (the “**STTCL**”), so far as the Covered Bonds fall within “foreign currency denominated bonds” under the STTCL and the issuance of the Covered Bonds is deemed to be an overseas issuance under the STTCL. The term “foreign currency denominated bonds” in this context is not defined under the STTCL. In this regard, the Korean tax authority issued a ruling on 1 September 1990 to the effect that “Notes Issuance Facility, USCP, Euro CP and Banker’s Acceptance, etc.” are not treated as “foreign currency denominated bonds.”

If not exempt under the STTCL, the rate of income tax or corporation tax applicable to interest or any premium paid on the Covered Bonds, applicable to a Non-Resident without a Permanent Establishment in Korea, is currently 14.0%. In addition, a tax surcharge called a local income tax is imposed at the rate of 10.0% of the income tax or corporation tax (raising the total tax rate to 15.4%).

The tax is withheld by the payer of the interest.

The tax rates may be reduced or exempted by applicable tax treaty, convention or agreement between Korea and the country of the recipient of the interest. The relevant tax treaties are discussed below.

Capital Gains Tax

The Korean tax laws currently exclude from Korean taxation gains made by a Non-Resident without a Permanent Establishment in Korea from the sale of the Covered Bonds to a Non-Resident (other than to its Permanent Establishment in Korea). In addition, capital gains earned by a Non-Resident with or without a Permanent Establishment from the transfer outside Korea of the Covered Bonds are currently exempt from taxation by virtue of the STTCL, provided that the Covered Bonds are foreign currency denominated bonds and the issuance of the Covered Bonds is deemed to be an overseas issuance.

In the absence of an applicable tax treaty or any other special tax laws reducing or eliminating capital gains tax, the applicable rate of tax is the lower of 11.0% (including local income tax) of the gross realisation proceeds (the “**Gross Realisation Proceeds**”) or (subject to the production of satisfactory evidence of the acquisition cost and certain direct transaction costs of the relevant Covered Bonds) 22.0% (including local income tax) of the realised gain made. The realised gain is calculated as the Gross Realisation Proceeds less the acquisition cost and certain direct transaction costs. If such evidence shows that no gain (or a loss) was made on the sale, no Korean tax would be payable. There is no provision under the relevant Korean law for offsetting gains and losses or otherwise aggregating transactions for the purpose of computing the net gain attributable to sales of securities issued by Korean companies.

The purchaser or any other designated withholding agent of Covered Bonds is obliged under Korean law to withhold the applicable amount of Korean tax and make payment thereof to the relevant Korean tax authority. Unless the seller can claim the benefit of an exemption from the tax under an applicable tax treaty or in the absence of the seller producing satisfactory evidence of his acquisition cost and certain direct transaction costs in relation to the Covered Bonds being sold, the purchaser or such withholding agent must withhold an amount equal to 11.0% (including local income tax) of the Gross Realisation Proceeds. Any amounts withheld by the

purchaser or such withholding agent must be paid to the relevant Korean tax authority no later than the tenth day of the month following the month in which the payment for the purchase of the relevant Covered Bonds occurred. Failure to transmit the withheld tax to the Korean tax authorities in time technically subjects the purchaser or the withholding agent to penalties under Korean tax laws and a Non-Resident who is liable for payment of any Korean tax on gains, as a purchaser or the withholding agent who is obliged to withhold such tax, is subject to the Korean tax authorities seeking enforcement through attachment of, or other legal proceedings against, payments due to it from its Korean investments and to enforcement against the assets or revenues of any of the Non-Resident's branch or representative offices in Korea.

Inheritance Tax and Gift Tax

Korean inheritance tax is imposed upon (a) all assets (wherever located) of the deceased if at the time of his death he was domiciled in Korea or resided in Korea for at least 183 days immediately prior to his death and (b) all property located in Korea which passes on death (irrespective of the domicile or residence of the deceased). Gift tax is imposed in similar circumstances to the above. The taxes are imposed if the value of the relevant property is above a certain limit and vary from 10% to 50% depending on the value of the relevant property and the identity of the parties involved.

Under Korean inheritance and gift tax laws, notes issued by Korean corporations are deemed located in Korea irrespective of where they are physically located or by whom they are held.

At present, Korea has not entered into any tax treaties regarding its inheritance tax or gift tax.

Stamp Duty and Securities Transaction Tax

No stamp, issue or registration duties will be payable in Korea by the Covered Bondholders in connection with the issue of the Covered Bonds except for nominal amount of stamp duty on certain documents executed in Korea. A securities transaction tax will not be imposed on the transfer of the Covered Bonds.

Tax Treaties

At the date of this Offering Circular, Korea has tax treaties with, *inter alios*, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Republic of Italy ("**Italy**"), Japan, Luxembourg, the Netherlands, New Zealand, Norway, Singapore, Sweden, Switzerland, the United Kingdom and the United States of America, under which the rate of withholding tax on interest is reduced, generally to between 5% and 16.5% (including local income tax), and the tax on capital gains is often eliminated.

Each Covered Bondholder should enquire for itself whether it is entitled to the benefit of a tax treaty with respect to this transaction. It is the responsibility of the party claiming the benefits of a tax treaty in respect of interest payments to file with the Issuer, the purchaser or the withholding agent, as applicable, a certificate as to its residence. In the absence of sufficient proof, the Issuer, the purchaser or the withholding agent, as applicable, must undertake to withhold taxes in accordance with the above discussion.

In order to claim the benefit of a tax rate reduction or tax exemption available under the applicable tax treaties, a Non-Resident holder must submit to the payer of such Korean-sourced income an application (for reduced withholding tax rate, "application for entitlement to reduced tax rate" and in the case of exemption from withholding tax, "application for exemption" under a tax treaty along with a the documents proving the beneficial owner of such Korean source income including certificate of the non-resident holder's tax residence issued by a competent authority of the Non-Resident holder's residence country) as the beneficial owner ("**BO Application**"), provided that if such tax exemption is being sought by an entity for an amount that is ₩1 billion or more (including where the aggregate amount exempted within one year from the last day of the month in which the payment was made, is ₩1 billion or more), in addition to the certificate of tax residence issued by a competent authority of the Non-Resident holder's residence country, it will also be required to submit the names and addresses of all of the members of board of directors, the identities and shareholding percentages of all of shareholders (provided that if there are more than 100 shareholders, the Non-Resident holder may instead provide a statement showing the total number of shareholders and aggregate investment amount from each country), and audit reports for the most recent three years submitted to the country of residence (or, if the entity has been in existence for less than three years, audit reports since incorporation). Such application should be submitted to the withholding agent prior to the payment date of the relevant income. Subject to certain exceptions, where the relevant income is paid to an overseas investment vehicle (which is not the beneficial

owner of such income) (“**OIV**”), a beneficial owner claiming the benefit of an applicable tax treaty with respect to such income must submit its BO Application to such OIV, which must submit an OIV report and a schedule of beneficial owners (together with the applicable BO Application), to the withholding agent prior to the payment date of such income. In the case of a tax exemption application, the withholding agent is required to submit such application (together with the applicable OIV report in the case of income paid to an OIV) to the relevant district tax office by the ninth day of the month following the date of the payment of such income. If there is no change in the contents of such application or OIV report, it is not required to submit such application or OIV report again within three years thereafter. Effective from 1 January 2022, an OIV is deemed to be a beneficial owner of Korean-sourced income for income tax purposes, if (i) under the applicable tax treaty, the OIV bears tax liabilities in the country in which it is established or the OIV is deemed to be the owner of the Korean-sourced income; and (ii) the Korean source income is eligible for the treaty benefits under the tax treaty. The benefits under a tax treaty between Korea and the country of such OIV’s residence will apply with respect to the relevant income paid to such OIV, subject to certain application requirements as prescribed by the Corporate Income Tax or Individual Income Tax Law. However, this requirement does not apply to exemptions under Korean tax law.

United States

Certain U.S. Federal Income Tax Considerations

The following is a summary of certain U.S. federal income tax considerations generally applicable to the acquisition, ownership and disposition of Registered Covered Bonds by a U.S. Holder (as defined below). This summary is for general informational purposes only and does not purport to be a complete discussion of all potential tax considerations that may be relevant to a particular investor’s decision to acquire Registered Covered Bonds.

This summary is based on the U.S. Internal Revenue Code of 1986, as amended (the “**Code**”), the regulations promulgated under the Code (the “**U.S. Treasury Regulations**”), published rulings of the U.S. Internal Revenue Service (the “**IRS**”), published administrative positions of the IRS, and U.S. court decisions that are applicable and, in each case, as in effect and available, as of the date hereof. Any of the authorities on which this summary is based could be changed in a material and adverse manner at any time, and any such change could be applied on a retroactive or prospective basis that could affect the U.S. federal income tax considerations described in this summary. We have not requested a ruling from the IRS with respect to any of the U.S. federal income tax considerations described below and, as a result, the IRS could disagree with portions of this discussion.

For purposes of this discussion, a “U.S. Holder” is a beneficial owner of Registered Covered Bonds that is, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) that is created or organised in or under the laws of the United States, any state thereof, or the District of Columbia;
- an estate the income of which is includable in gross income for U.S. federal income tax purposes regardless of its source; or
- a trust (i) the administration of which is subject to the primary supervision of a court within the United States and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust, or (ii) that has validly elected to be treated as a U.S. person under the Code.

If an entity or arrangement that is classified as a partnership for U.S. federal income tax purposes holds Registered Covered Bonds, the U.S. federal income tax consequences to such partnership and its partners of the acquisition, ownership and disposition of the Registered Covered Bonds generally will depend in part on the activities of the partnership and the status of such partners. This summary does not address the tax consequences to any such partner or partnership. Partners of entities or arrangements that are classified as partnerships for U.S. federal income tax purposes should consult with their own tax advisers regarding the U.S. federal income tax consequences of the acquisition, ownership and disposition of Registered Covered Bonds.

This summary deals only with U.S. Holders that will hold Registered Covered Bonds as capital assets. In addition, this summary does not address any tax consequences other than U.S. federal income tax consequences, such as U.S. state and local tax consequences, U.S. estate and gift tax consequences, or non-U.S. tax consequences, and does not describe all of the U.S. federal income tax consequences that may be relevant in light

of a U.S. Holder's particular circumstances, including alternative minimum tax consequences, the Medicare tax on certain net investment income, and tax consequences to holders that are subject to special provisions under the Code, including, but not limited to, holders that (i) are financial institutions, underwriters, insurance companies, real estate investment trusts, or regulated investment companies, (ii) are tax-exempt organisations, qualified retirement plans, individual retirement accounts, or other tax deferred accounts, (iii) are brokers or dealers in securities or currencies or holders that are traders in securities that elect to apply a mark-to-market accounting method, (iv) own Registered Covered Bonds as part of a straddle, hedging transaction, conversion transaction, constructive sale, or other arrangement involving more than one position, (v) are partnerships or other pass-through entities for U.S. federal income tax purposes (or investors in such partnerships and entities), (vi) have a "functional currency" for U.S. federal income tax purposes that is not the U.S. dollar, or (vii) are former U.S. citizens or long-term residents of the United States. Any special U.S. federal income tax considerations relevant to a particular issue of Registered Covered Bonds, including any Registered Covered Bonds with an Extended Maturity Date, will be provided in the applicable Pricing Supplement.

Prospective investors should consult with their own tax advisers regarding the application of U.S. federal taxation to their particular circumstances, and the state, local, non-U.S. and other tax considerations of the acquisition, ownership and disposition of Registered Covered Bonds.

Book/Tax Conformity

U.S. Holders that use an accrual method of tax accounting generally are required to include certain amounts in income no later than the time such amounts are reflected on certain financial statements. The application of this rule could require the accrual of income earlier than would be the case under the general rules described below. However, U.S. Treasury Regulations exclude from this rule, among other items, any item of gross income for which a taxpayer uses a special method of accounting required by certain sections of the Code, including income subject to the timing rules for original issue discount and market discount (in either case, whether or not de minimis). Accrual method U.S. Holders should consult with their own tax advisers regarding the potential applicability of these rules to their investment in the Registered Covered Bonds.

Payments of Interest

Payments of "qualified stated interest" (as defined below under "*—Original Issue Discount*") on a Registered Covered Bond will be taxable to a U.S. Holder as ordinary interest income at the time that such payments are accrued or are received, in accordance with the U.S. Holder's method of tax accounting. If such payments of interest are made with respect to a Registered Covered Bond that is denominated in a single currency other than the U.S. dollar (a "**Foreign Currency Covered Bond**"), the amount of interest income realised by a U.S. Holder that uses the cash method of tax accounting will be the U.S. dollar value of the Specified Currency payment based on the exchange rate in effect on the date of receipt, regardless of whether the payment is in fact converted into U.S. dollars. A U.S. Holder that uses the accrual method of tax accounting will accrue interest income on a Foreign Currency Covered Bond in the relevant foreign currency and translate the amount accrued into U.S. dollars based on (i) the average exchange rate in effect during the interest accrual period (or portion thereof within the U.S. Holder's taxable year) or (ii) at the accrual basis U.S. Holder's election, at the spot rate of exchange on (A) the last day of the accrual period (or the last day of the taxable year within such accrual period in the case of a partial accrual period), or (B) the date of receipt, if such date is within five business days of the last day of the accrual period. A U.S. Holder that makes such election must apply it consistently to all debt instruments from year to year and cannot change the election without the consent of the IRS. A U.S. Holder that uses the accrual method of tax accounting will recognise foreign currency gain or loss, as the case may be, on the receipt of an interest payment made with respect to a Foreign Currency Covered Bond if the exchange rate in effect on the date the payment is received differs from the rate applicable to the accrual of that interest income. Amounts of interest attributable to pre-issuance accrued interest will generally not be includable in income, except to the extent of foreign currency gain or loss attributable to any changes in exchange rates during the period between the date the U.S. Holder acquired the Registered Covered Bond and the first Interest Payment Date. This foreign currency gain or loss will be treated as ordinary income or loss but generally will not be treated as an adjustment to interest income received on the Foreign Currency Covered Bond.

Effect of Korean Withholding Taxes

As discussed in "*Taxation—Korea*" above, under current law, payments of interest on the Registered Notes to non-Korean investors may be subject to Korean withholding taxes. As discussed under "*Terms and Conditions of the Covered Bonds—Taxation*", the Issuer may be liable for the payment of additional amounts to U.S. Holders

so that U.S. Holders receive the same amounts they would have received had no Korean withholding taxes been imposed. For U.S. federal income tax purposes, U.S. Holders would be treated as having actually received the amount of Korean taxes withheld by the Issuer with respect to a Registered Covered Bond (including any amounts withheld in respect of additional amounts paid to offset such withholding), and as then having actually paid over the withheld taxes to the Korean taxing authorities. As a result, the amount of interest income included in gross income for U.S. federal income tax purposes by a U.S. Holder with respect to a payment of interest may be greater than the amount of cash actually received (or receivable) by the U.S. Holder from the Issuer with respect to the payment. Subject to certain limitations, a U.S. Holder may be entitled to a credit against its U.S. federal income tax liability, or a deduction in computing its U.S. federal taxable income, for Korean income taxes withheld by the Issuer. Interest generally will constitute “passive category income” for purposes of the foreign tax credit. The rules governing foreign tax credits are complex, and prospective investors should consult with their own tax advisers concerning the foreign tax credit implications of Korean withholding taxes.

Purchase, Sale and Retirement of Registered Covered Bonds

A U.S. Holder’s adjusted tax basis in a Registered Covered Bond generally will equal the cost of the Registered Covered Bond to such holder, increased by any amounts included in income by such holder as OID and market discount and reduced by any amortised premium (each as described below) and any previous payments other than payments of qualified stated interest made on the Registered Covered Bond. In the case of a Foreign Currency Covered Bond, the cost of the Foreign Currency Covered Bond to a U.S. Holder will be the U.S. dollar value of the foreign currency purchase price on the date of purchase. In the case of a Foreign Currency Covered Bond that is traded on an established securities market, a cash basis U.S. Holder (and, if it so elects, an accrual basis U.S. Holder) will determine the U.S. dollar value of the cost of the Foreign Currency Covered Bond by translating the amount paid at the spot rate of exchange on the settlement date of the purchase. The amount of any subsequent adjustments to a U.S. Holder’s adjusted tax basis in a Registered Covered Bond in respect of OID, market discount and premium denominated in a Specified Currency will be determined in the manner described under “—*Original Issue Discount*” and “—*Premium and Market Discount*” below. The conversion of U.S. dollars to a Specified Currency and the immediate use of the Specified Currency to purchase a Foreign Currency Covered Bond generally will not result in taxable gain or loss for a U.S. Holder.

Upon the sale, exchange or retirement of a Registered Covered Bond, a U.S. Holder generally will recognise gain or loss equal to the difference between (i) the amount realised on the sale, exchange or retirement (less any amount attributable to accrued qualified stated interest, which will be taxable as such) and (ii) the U.S. Holder’s adjusted tax basis in the Registered Covered Bond. If a U.S. Holder receives a currency other than the U.S. dollar in respect of the sale, exchange or retirement of a Registered Covered Bond, the amount realised will be the U.S. dollar value of the Specified Currency received calculated at the exchange rate in effect on the date of such sale, exchange or retirement. In the case of a Foreign Currency Covered Bond that is traded on an established securities market, a cash basis U.S. Holder (and, if it so elects, an accrual basis U.S. Holder) will determine the U.S. dollar value of the amount realised by translating such amount at the spot rate on the settlement date of the sale. The election available to accrual basis U.S. Holders in respect of the purchase and sale of Foreign Currency Covered Bonds traded on an established securities market, discussed above, must be applied consistently to all debt instruments from year to year and cannot be changed without the consent of the IRS.

Except as discussed below with respect to market discount, Short-Term Covered Bonds (as defined below under “—*Short-Term Covered Bonds*”) and foreign currency gain or loss, gain or loss recognised by a U.S. Holder on sale, exchange or retirement of a Registered Covered Bond generally will be capital gain or loss and will be long-term capital gain or loss if the U.S. Holder has held a Registered Covered Bond for more than one year at the time of disposition. Long-term capital gains recognised by a non-corporate U.S. Holder generally are subject to tax at a lower rate than short-term capital gains or ordinary income. The deductibility of capital losses is subject to limitations.

Gain or loss recognised by a U.S. Holder on the sale, exchange or retirement of a Foreign Currency Covered Bond generally will be treated as ordinary income or loss to the extent that the gain or loss is attributable to changes in exchange rates during the period in which the holder held the Foreign Currency Covered Bond. This foreign currency gain or loss will not be treated as an adjustment to interest income received on the Foreign Currency Covered Bonds. A U.S. Holder might be required to file a disclosure statement with the IRS if the U.S. Holder recognises foreign currency loss above certain thresholds (as described below under “—*Reportable Transactions*”).

Original Issue Discount

If the Issuer issues Registered Covered Bonds at a discount from their stated redemption price at maturity (as defined below), and the discount is equal to or more than 0.25% of the stated redemption price at maturity of such Registered Covered Bonds multiplied by the number of full years to their maturity from the issue date, such Registered Covered Bonds will be what we refer to as “Original Issue Discount Covered Bonds.” The difference between the issue price and the stated redemption price at maturity of an Original Issue Discount Covered Bond will be the OID on such Original Issue Discount Covered Bond. The “issue price” of a Registered Covered Bond will be the first price at which a substantial amount of such Registered Covered Bonds are sold to the public (i.e., excluding sales of such Registered Covered Bonds to underwriters, placement agents, wholesalers or similar persons). The “stated redemption price at maturity” of a Registered Covered Bond will include all payments under such Registered Covered Bonds other than payments of qualified stated interest. The term “qualified stated interest” generally means stated interest that is unconditionally payable in cash or property (other than debt instruments issued by the Issuer) at least annually during the entire term of a Registered Covered Bond at a single fixed interest rate or, subject to certain conditions, based on one or more floating interest rates.

U.S. Holders of Original Issue Discount Covered Bonds generally will be subject to the special tax accounting rules for obligations issued with OID provided by the Code and the U.S. Treasury Regulations (the “**OID Regulations**”). U.S. Holders of Original Discount Covered Bonds should be aware that, as described in greater detail below, they generally must include OID in ordinary gross income for U.S. federal income tax purposes as it accrues, in advance of the receipt of cash attributable to that income.

In general, each U.S. Holder of an Original Issue Discount Covered Bond, whether such holder uses the cash or the accrual method of tax accounting, will be required to include in gross income as ordinary income the sum of the “daily portions” of OID on the Original Issue Discount Covered Bond for all days during the taxable year that the U.S. Holder owns the Original Issue Discount Covered Bond. The daily portions of OID on an Original Issue Discount Covered Bond are determined by allocating to each day in any accrual period a rateable portion of the OID allocable to that accrual period. Accrual periods may be any length and may vary in length over the term of an Original Issue Discount Covered Bond, provided that no accrual period is longer than one year and each scheduled payment of principal or interest occurs on either the final day or the first day of an accrual period. In the case of an initial holder, the amount of OID on an Original Issue Discount Covered Bond allocable to each accrual period is determined by (i) multiplying the “adjusted issue price” (as defined below) of the Original Issue Discount Covered Bond at the beginning of the accrual period by the yield to maturity of such Original Issue Discount Covered Bond (appropriately adjusted to reflect the length of the accrual period) and (ii) subtracting from that the sum of the amount (if any) of qualified stated interest allocable to that accrual period. The yield to maturity of an Original Issue Discount Covered Bond is the discount rate that causes the present value of all payments on the Original Issue Discount Covered Bond as of its original issue date to equal the issue price of the Original Issue Discount Covered Bond. The “adjusted issue price” of an Original Issue Discount Covered Bond at the beginning of any accrual period will generally be the sum of its issue price (generally including accrued interest, if any) and the amount of OID allocable to all prior accrual periods, reduced by the amount of all payments other than payments of qualified stated interest (if any) made with respect to the Original Issue Discount Covered Bond in all prior accrual periods. In the case of an Original Issue Discount Covered Bond that is a Floating Rate Covered Bond, both the “yield to maturity” and “qualified stated interest” will generally be determined for these purposes as though the Original Issue Discount Covered Bond will bear interest in all periods at a fixed rate generally equal to the rate that would be applicable to the interest payments on the Original Issue Discount Covered Bond on its date of issue or, in the case of certain Floating Rate Covered Bonds, the rate that reflects the yield that is reasonably expected for the Floating Rate Covered Bond. Additional rules may apply if interest on a Floating Rate Covered Bond is based on more than one interest index.

A U.S. Holder generally may make an irrevocable election to include in its income its entire return on a Registered Covered Bond (i.e., the excess of all remaining payments to be received on the Registered Covered Bond, including payments of qualified stated interest, over the amount paid by such U.S. Holder for the Registered Covered Bond) under the constant-yield method described above. For Registered Covered Bonds purchased at a premium or bearing market discount in the hands of the U.S. Holder, the U.S. Holder making such election will also be deemed to have made the election (discussed below in “—*Premium and Market Discount*”) to amortise premium or to accrue market discount in income currently on a constant-yield basis.

In the case of an Original Issue Discount Covered Bond that is also a Foreign Currency Covered Bond, a U.S. Holder should determine the U.S. dollar amount includible in income as OID for each accrual period by (i) calculating the amount of OID allocable to each accrual period in the Specified Currency using the constant-

yield method described above, and (ii) translating the amount of the Specified Currency so derived at the average exchange rate in effect during that accrual period (or portion thereof within a U.S. Holder's taxable year) or, at the U.S. Holder's election (as described above under "*—Payments of Interest*"), at the spot rate of exchange on the last day of the accrual period (or, in the case of a partial accrual period, at the spot rate on the last day of the first taxable year for the OID accruing in the portion of the accrual period ending on such date and at the spot rate on the last date of the accrual period for the remaining OID accruing during such accrual period), or at the spot rate of exchange on the date of receipt, if such date is within five business days of the last day of the accrual period. Because exchange rates may fluctuate, a U.S. Holder of an Original Issue Discount Covered Bond that is also a Foreign Currency Covered Bond may recognise a different amount of OID income in each accrual period than would the holder of an otherwise similar Original Issue Discount Covered Bond denominated in U.S. dollars.

All payments on an Original Issue Discount Covered Bond (other than payments of qualified stated interest) will generally be viewed first as payments of previously accrued OID (to the extent thereof), with payments attributed first to the earliest-accrued OID, and then as payments of principal. Upon the receipt of an amount attributable to previously accrued OID (whether in connection with a payment of an amount that is not qualified stated interest or the sale or retirement of the Original Issue Discount Covered Bond), a U.S. Holder will recognise ordinary income or loss measured by the difference between the amount received (translated into U.S. dollars at the exchange rate in effect on the date of receipt or on the date of disposition of the Original Issue Discount Covered Bond, as the case may be) and the amount accrued (using the exchange rate applicable to such previous accrual).

A subsequent U.S. Holder of an Original Issue Discount Covered Bond that purchases the Original Issue Discount Covered Bond at a cost less than its remaining redemption amount (as defined below), or an initial U.S. Holder that purchases an Original Issue Discount Covered Bond at a price other than the Original Issue Discount Covered Bond's issue price, also generally will be required to include in gross income the daily portions of OID, calculated as described above. However, if the U.S. Holder acquires the Original Issue Discount Covered Bond at a price greater than its adjusted issue price, such holder may reduce its periodic inclusions of OID income to reflect the premium paid over the adjusted issue price. The "remaining redemption amount" for an Original Issue Discount Covered Bond is the total of all future payments to be made on the Original Issue Discount Covered Bond other than payments of qualified stated interest.

Floating Rate Covered Bonds generally will be treated as "variable rate debt instruments" under the OID Regulations. Accordingly, the stated interest on a Floating Rate Covered Bond generally will be treated as "qualified stated interest" and Floating Rate Covered Bond will not have OID solely as a result of the fact that it provides for interest at a variable rate. If a Floating Rate Covered Bond does not qualify as a "variable rate debt instrument," the Floating Rate Covered Bond will be subject to special rules that govern the tax treatment of debt obligations that provide for contingent payments. A detailed description of the tax considerations relevant to U.S. Holders of any Floating Rate Covered Bonds will be provided in the applicable Pricing Supplement.

Certain of the Registered Covered Bonds may be subject to special redemption, repayment or interest rate reset features, as indicated in the applicable Pricing Supplement. Registered Covered Bonds containing such features may be subject to special rules that differ from the general rules discussed above. Purchasers of Registered Covered Bonds with such features should carefully examine the applicable Pricing Supplement and should consult with their own tax advisers with respect to Registered Covered Bonds because the tax consequences with respect to such features, and with respect to OID, will depend, in part, on the particular terms of purchased Registered Covered Bonds.

If a Registered Covered Bond provides for a scheduled Interest Accrual Period that is longer than one year (for example, as a result of a long initial period on a Registered Covered Bond with interest that is generally paid on an annual basis), then stated interest on the Registered Covered Bond will not qualify as "qualified stated interest" under the applicable U.S. Treasury Regulations. As a result, the Registered Covered Bond would be an Original Issue Discount Covered Bond. In that event, among other things, cash method U.S. Holders will be required to accrue stated interest on the Registered Covered Bond under the rules for OID described above, and all U.S. Holders will be required to accrue OID that would otherwise fall under the de minimis threshold.

Premium and Market Discount

A U.S. Holder that purchases the Registered Covered Bond at a cost greater than its remaining redemption amount (as defined above under "*—Original Issue Discount*") will be considered to have purchased the Registered Covered Bond at a premium, and may elect to amortise such premium (as an offset to interest

income), using a constant-yield method, over the remaining term of the Registered Covered Bond. Such election, once made, generally applies to all bonds held or subsequently acquired by the U.S. Holder during or after the taxable year to which the election applies and may not be revoked without the consent of the IRS. A U.S. Holder that elects to amortise such premium must reduce its tax basis in a Registered Covered Bond by the amount of the premium amortised during its holding period. Original Issue Discount Covered Bonds purchased at a premium over the remaining redemption amount will not be subject to the OID rules described above.

In the case of premium in respect of a Foreign Currency Covered Bond, a U.S. Holder should calculate the amortisation of such premium in the Specified Currency. Amortisation deductions attributable to a period reduce interest payments in respect of that period and therefore are translated into U.S. dollars at the exchange rate used by the U.S. Holder for such interest payments. Exchange gain or loss will be realised with respect to amortised bond premium on a Foreign Currency Covered Bond based on the difference between the exchange rate on the date or dates such premium is recovered through interest payments on the Foreign Currency Covered Bond and the exchange rate on the date on which the U.S. Holder acquired the Foreign Currency Covered Bond. With respect to a U.S. Holder that does not elect to amortise bond premium, the amount of bond premium will be included in the U.S. Holder's tax basis when the Foreign Currency Covered Bond matures or is disposed of by the U.S. Holder. Therefore, a U.S. Holder that does not elect to amortise such premium and that holds a Foreign Currency Covered Bond to maturity generally will be required to treat the premium as capital loss when the Foreign Currency Covered Bond matures.

If a U.S. Holder of a Registered Covered Bond purchases the Registered Covered Bond at a price that is lower than its remaining redemption amount or, in the case of an Original Issue Discount Covered Bond, a price that is lower than its adjusted issue price, by at least 0.25% of its remaining redemption amount or adjusted issue price, respectively, multiplied by the number of remaining whole years to maturity, the Registered Covered Bond will be considered to have "market discount" in the hands of such U.S. Holder. In such case, gain realised by the U.S. Holder on the disposition of a Registered Covered Bond generally will be treated as ordinary income to the extent of the market discount that accrued on the Registered Covered Bond while held by such U.S. Holder. In addition, the U.S. Holder could be required to defer the deduction of a portion of the interest paid on any indebtedness incurred or maintained to purchase or carry the Registered Covered Bond. In general, market discount on a Registered Covered Bond will be treated as accruing rateably over the term of the Registered Covered Bond, or, at the election of the holder, under a constant-yield method. Market discount on a Foreign Currency Covered Bond will be accrued by a U.S. Holder in the Specified Currency. The amount includible in income by a U.S. Holder in respect of such accrued market discount will be the U.S. dollar value of the amount accrued, generally calculated at the exchange rate in effect on the date that the Registered Covered Bond is disposed of by the U.S. Holder.

A U.S. Holder may elect to include market discount in income on a current basis as it accrues (on either a rateable or constant-yield basis), in lieu of treating a portion of any gain realised on a sale of a Registered Covered Bond as ordinary income. If a U.S. Holder elects to include market discount on a current basis, the interest deduction deferral rule described above will not apply. Any accrued market discount on a Foreign Currency Covered Bond that is currently includible in income will be translated into U.S. dollars at the average exchange rate for the accrual period (or portion thereof within the U.S. Holder's taxable year). Any such election, if made, applies to all market discount bonds acquired by the taxpayer on or after the first day of the first taxable year to which such election applies and is revocable only with the consent of the IRS.

Short-Term Covered Bonds

The rules described above will also generally apply to Registered Covered Bonds having maturities of not more than one year ("**Short-Term Covered Bonds**"), but with certain modifications.

First, the OID Regulations treat none of the interest on a Short-Term Covered Bond as qualified stated interest. Thus, all Short-Term Covered Bonds will be Original Issue Discount Covered Bonds. OID will be treated as accruing on a Short-Term Covered Bond rateably or, at the election of a U.S. Holder, under a constant-yield method.

Second, U.S. Holder of a Short-Term Covered Bond that uses the cash method of tax accounting will generally not be required to include OID on such Short-Term Covered Bond in income on a current basis. Such a U.S. Holder may be required to defer, until such Short-Term Covered Bond matures or its earlier disposition in a taxable transaction, the deduction of a portion of the interest expense on any indebtedness incurred or continued to purchase or carry such Short-Term Covered Bond. In addition, such a U.S. Holder will be required to treat any

gain realised on a disposition of the Short-Term Covered Bond as ordinary income to the extent such gain does not exceed the U.S. Holder's accrued OID on the debt security, and short-term capital gain to the extent the gain exceeds accrued OID. Notwithstanding the foregoing, a U.S. Holder of a Short-Term Covered Bond using the cash method of tax accounting may elect to accrue OID into income on a current basis. In such case, the limitation on the deductibility of interest described above will not apply. A U.S. Holder using the accrual method of tax accounting and certain other U.S. Holders (including banks, dealers in securities, regulated investment companies and certain trust funds) generally will be required to include OID on a Short-Term Covered Bond in income on a current basis.

Third, any U.S. Holder of a Short-Term Covered Bond, whether using the cash or accrual method of tax accounting, can elect to accrue the "acquisition discount," if any, on the Short-Term Covered Bond on a current basis. If such an election is made, the OID rules will not apply to the Short-Term Covered Bond. "Acquisition discount" is the excess of the remaining redemption amount of the Short-Term Covered Bond over the U.S. Holder's purchase price. Acquisition discount will be treated as accruing rateably or, at the election of the U.S. Holder, under a constant-yield method.

Finally, the market discount rules will not apply to a Short-Term Covered Bond.

Occurrence of a Benchmark Transition Event for Floating Rate Covered Bonds Linked to or Referencing a Benchmark

If a Benchmark Transition Event occurs, a U.S. Holder holding Floating Rate Covered Bonds linked to or referencing a Benchmark, including EURIBOR and any other IBOR, may be deemed to exchange such Floating Rate Covered Bonds for new bonds under Section 1001 of the Code, which may be taxable to such U.S. Holder. U.S. Treasury Regulations provide that in certain circumstances, the replacement of a Benchmark with a qualifying reference rate would not result in a deemed exchange under Section 1001 of the Code. U.S. Holders should consult with their own tax advisers regarding the potential consequences of a Benchmark Transition Event.

Information Reporting and Backup Withholding

The Paying Agent may be required to file information returns with the IRS with respect to payments made to, and OID accrued in respect of, certain U.S. Holders of Registered Covered Bonds. In addition, certain U.S. Holders may be subject to backup withholding in respect of such payments if they do not provide their taxpayer identification numbers or certification of their exempt status to the Paying Agent or fail to comply with applicable certification requirements. Backup withholding is not an additional tax. The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the U.S. Holder's U.S. federal income tax liability and may entitle the holder to a refund, provided that the required information is timely and properly furnished to the IRS. Certain U.S. Holders (including, among others, corporations) are not subject to information reporting or backup withholding. U.S. Holders should consult their tax advisers as to their qualification for exemption from information reporting and/or backup withholding.

Information Reporting with Respect to Foreign Financial Assets

Individual U.S. Holders that own "specified foreign financial assets" with an aggregate value in excess of US\$50,000 on the last day of the taxable year or US\$75,000 at any time during the taxable year (or, for certain individuals living outside the United States and married individuals filing joint returns, certain higher thresholds) are generally required to file an information statement along with their tax returns, currently on Form 8938, with respect to such assets. "Specified foreign financial assets" include any financial accounts held at a non-U.S. financial institution, as well as securities issued by a non-U.S. issuer (which would include the Registered Covered Bonds) that are not held in accounts maintained by financial institutions. Higher reporting thresholds apply to certain individuals living abroad and to certain married individuals. U.S. Treasury Regulations extend this reporting requirement to certain entities that are treated as formed or availed of to hold direct or indirect interests in specified foreign financial assets based on certain objective criteria. U.S. Holders who fail to report the required information could be subject to substantial penalties. Prospective investors should consult with their own tax advisers concerning the application of these rules to their investment in Registered Covered Bonds.

Reportable Transactions

A U.S. Holder that participates in a "reportable transaction" will be required to disclose its participation to the IRS. The scope and application of these rules are not entirely clear. A U.S. Holder may be required to treat a

foreign currency exchange loss relating to a Foreign Currency Covered Bond as a reportable transaction if the loss exceeds US\$50,000 in a single taxable year if the U.S. Holder is an individual or trust, or higher amounts for other non-individual U.S. Holders. In the event the acquisition, ownership or disposition of a Foreign Currency Covered Bond constitutes participation in a “reportable transaction” for purposes of these rules, a U.S. Holder will be required to disclose its investment to the IRS, currently on Form 8886. A U.S. Holder that fails to timely file an information return with the IRS with respect to a transaction resulting in a loss that is treated as a reportable transaction may be subject to penalties. The Issuer might also be required to report information regarding the transaction to the IRS. Prospective purchasers should consult with their tax advisers regarding the application of these rules to the acquisition, ownership or disposition of Foreign Currency Covered Bonds.

Foreign Account Tax Compliance Act

Pursuant to certain provisions of U.S. law, commonly known as FATCA, holders and beneficial owners of the Registered Covered Bonds may be required to provide a financial institution in the chain of payments on the Registered Covered Bonds information and tax documentation regarding their identities, and in the case of a holder that is an entity, the identities of their direct and indirect owners, and this information may be reported to relevant tax authorities, including the IRS. Moreover, the Issuer and other non-U.S. financial institutions through which payments are made may be required to withhold U.S. tax at a 30% rate on “foreign passthru payments” (a term not yet defined in U.S. Treasury Regulations) paid to an investor who does not provide information sufficient for the institution to determine whether the investor is a U.S. person or should otherwise be treated as holding a “United States account” of the institution, or to an investor that is, or holds the Registered Covered Bonds directly or indirectly through, a non-U.S. financial institution that is not in compliance with FATCA. However, under proposed U.S. Treasury Regulations (on which taxpayers may rely until final U.S. Treasury Regulations are issued), such withholding would not apply to foreign passthru payments prior to the date that is two years after the date on which final regulations defining foreign passthru payments are published in the U.S. Federal Register.

A number of jurisdictions (including Korea) have entered into, or have agreed in substance to, intergovernmental agreements with the United States to implement FATCA (“IGAs”), which modify the way in which FATCA applies in their jurisdictions. Certain aspects of the application of these rules to instruments such as the Registered Covered Bonds, including whether withholding would ever be required pursuant to FATCA or an IGA with respect to payments on instruments such as the Registered Covered Bonds, are not clear at this time.

Even if withholding would be required pursuant to FATCA or an IGA with respect to payments on instruments such as the Registered Covered Bonds, as noted above, under proposed U.S. Treasury Regulations, such withholding would not apply prior to the date that is two years after the date on which final regulations defining foreign passthru payments are published in the U.S. Federal Register. Further, Registered Covered Bonds that have a fixed term and are not treated as equity for U.S. federal income tax purposes issued on or prior to the date that is six months after the date on which final regulations defining “foreign passthru payments” are filed with the U.S. Federal Register generally would be “grandfathered” for purposes of FATCA withholding unless materially modified after such date. However, if additional Covered Bonds (as described under “*Terms and Conditions of the Covered Bonds—Further Issues*”) that are not distinguishable from grandfathered Registered Covered Bonds are issued after the expiration of the grandfathering period and are subject to withholding under FATCA, then withholding agents may treat all Covered Bonds, including grandfathered Registered Covered Bonds, as subject to withholding under FATCA.

In the event any withholding would be required pursuant to FATCA or an IGA with respect to payments on the Registered Covered Bonds, neither the Issuer nor any Paying Agent nor any other person will be required to pay additional amounts as a result of the withholding. Holders should consult with their own tax advisers regarding how these rules may apply to their investment in the Registered Covered Bonds.

BOOK-ENTRY CLEARANCE SYSTEMS

*The information set out below is subject to any change in or reinterpretation of the rules, regulations and procedures of DTC, Euroclear or Clearstream (together, the “**Clearing System**”) currently in effect. The information in this section concerning the Clearing System has been obtained from sources that the Issuer believes to be reliable, but none of the Issuer nor any Dealer takes any responsibility for the accuracy thereof. Investors wishing to use the facilities of any of the Clearing Systems are advised to confirm the continued applicability of the rules, regulations and procedures of the relevant Clearing System. None of the Issuer nor any other party to the Agency Agreement will have any responsibility or liability for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the Covered Bonds held through the facilities of any Clearing System or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.*

Book-entry Systems

Depository Trust Company

DTC has advised the Issuer that it is a limited purpose trust company organised under the New York Banking Law, a “banking organisation” within the meaning of the New York Banking Law, a “clearing corporation” within the meaning of the New York Uniform Commercial Code and a “clearing agency” registered pursuant to Section 17A of the Exchange Act. DTC holds securities that its participants (“**Participants**”) deposit with DTC. DTC also facilitates the settlement among Participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerised book-entry changes in Participants’ accounts, thereby eliminating the need for physical movement of securities certificates. Direct Participants include securities brokers and dealers, banks, trust companies, clearing corporations and certain other organisations. Access to the DTC System is also available to others such as securities brokers and dealers, banks and trust companies that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“**Indirect Participants**”).

Under the rules, regulations and procedures creating and affecting DTC and its operations (the “**Rules**”), DTC makes book-entry transfers of Registered Covered Bonds among Direct Participants on whose behalf it acts with respect to Covered Bonds accepted into DTC’s book-entry settlement system (“**DTC Covered Bonds**”) as described below and receives and transmits distributions of principal and interest on DTC Covered Bonds. The Rules are on file with the Securities and Exchange Commission. Direct Participants and Indirect Participants with which beneficial owners of DTC Covered Bonds (“**Owners**”) have accounts with respect to the DTC Covered Bonds similarly are required to make book-entry transfers and receive and transmit such payments on behalf of their respective Owners. Accordingly, although Owners who hold DTC Covered Bonds through Direct Participants or Indirect Participants will not possess Registered Covered Bonds, the Rules, by virtue of the requirements described above, provide a mechanism by which Direct Participants will receive payments and will be able to transfer their interest in respect of the DTC Covered Bonds.

Purchases of DTC Covered Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the DTC Covered Bonds on DTC’s records. The ownership interest of each actual purchaser of each DTC Note (“**Beneficial Owner**”) is in turn to be recorded on the Direct and Indirect Participant’s records. Beneficial Owners will not receive written confirmation from DTC of their purchase, but Beneficial Owners are expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the DTC Covered Bonds are to be accomplished by entries made on the books of Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in DTC Covered Bonds, except in the event that use of the book-entry system for the DTC Covered Bonds is discontinued.

To facilitate subsequent transfers, all DTC Covered Bonds deposited by participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co. The deposit of DTC Covered Bonds with DTC and their registration in the name of Cede & Co. effect no change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the DTC Covered Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such DTC Covered Bonds are credited, which may or may not be the Beneficial Owners. The Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed

by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to Cede & Co. If less than all of the DTC Covered Bonds within an issue are being redeemed, selection of Covered Bonds for such partial redemption will be made in accordance of rules and procedures of DTC.

Neither DTC nor Cede & Co. will consent or vote with respect to DTC Covered Bonds. Under its usual procedures, DTC mails an Omnibus Proxy to the Issuer as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the DTC Covered Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payment on the DTC Covered Bonds will be made to DTC. DTC's practise is to credit Direct Participants' accounts on the due date for payment in accordance with their respective holdings shown on DTC's records unless DTC has reason to believe that it will not receive payment on the due date. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practises, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC or the Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to DTC is the responsibility of the Issuer, disbursement of such payments to Direct Participants is the responsibility of DTC, and disbursement of such payments to the Beneficial Owners is the responsibility of Direct and Indirect Participants.

Under certain circumstances, including if there is an Event of Default under the Covered Bonds, DTC will exchange the DTC Covered Bonds for definitive Registered Covered Bonds, which it will distribute to its Participants in accordance with their proportionate entitlements and which, if representing interests in a Rule 144A Global Certificate, will be legended as set forth under "*Subscription and Sale and Transfer and Selling Restrictions*."

Since DTC may only act on behalf of Direct Participants, who in turn act on behalf of Indirect Participants, any Owner desiring to pledge DTC Covered Bonds to persons or entities that do not participate in DTC, or otherwise take actions with respect to such DTC Covered Bonds, will be required to withdraw its Registered Covered Bonds from DTC as described below.

Euroclear and Clearstream

Euroclear and Clearstream each holds securities for its customers and facilitates the clearance and settlement of securities transactions by electronic book-entry transfer between their respective account holders. Euroclear and Clearstream provide various services including safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Euroclear and Clearstream also deal with domestic securities markets in several countries through established depository and custodial relationships. Euroclear and Clearstream have established an electronic bridge between their two systems across which their respective participants may settle trades with each other.

Euroclear and Clearstream customers are world-wide financial institutions, including underwriters, securities brokers and dealers, banks, trust companies and clearing corporations. Indirect access to Euroclear and Clearstream is available to other institutions that clear through or maintain a custodial relationship with an account holder of either system.

Book-entry Ownership of and Payments in respect of DTC Covered Bonds

The Issuer may apply to DTC in order to have any Tranche of Covered Bonds represented by a Registered Global Certificate accepted in its book-entry settlement system. Upon the issue of any such Registered Global Certificate, DTC or its custodian will credit, on its internal book-entry system, the respective nominal amounts of the individual beneficial interests represented by such Registered Global Certificate to the accounts of persons who have accounts with DTC. Such accounts initially will be designated by or on behalf of the relevant Dealer. Ownership of beneficial interests in such Registered Global Certificate will be limited to Direct Participants or Indirect Participants, including, in the case of any Regulation S Global Certificate, the respective depositories of Euroclear and Clearstream. Ownership of beneficial interests in a Registered Global Certificate accepted by DTC will be shown on, and the transfer of such ownership will be effected only through, records maintained by DTC or its nominee (with respect to the interests of Direct Participants) and the records of Direct Participants (with respect to interests of Indirect Participants).

Payments in U.S. dollars of principal and interest in respect of a Registered Global Certificate accepted by DTC will be made to the order of DTC or its nominee as the registered holder of such Covered Bond. In the case of any payment in a currency other than U.S. dollars, payment will be made to the Exchange Agent on behalf of DTC or its nominee and the Exchange Agent will (in accordance with instructions received by it) remit all or a portion of such payment for credit directly to the beneficial holders of interests in the Registered Global Certificate in the currency in which such payment was made and/or cause all or a portion of such payment to be converted into U.S. dollars and credited to the applicable Participants' account.

The Issuer expects DTC to credit accounts of Direct Participants on the applicable payment date in accordance with their respective holdings as shown in the records of DTC unless DTC has reason to believe that it will not receive payment on such payment date. The Issuer also expects that payments by Participants to beneficial owners of Covered Bonds will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers, and will be the responsibility of such Participant and not the responsibility of DTC, the Principal Paying Agent, the Registrar or the Issuer. Payment of principal, premium, if any, and interest, if any, on Covered Bonds to DTC is the responsibility of the Issuer.

Transfers of Covered Bonds Represented by Registered Global Covered Bonds

Transfers of any interests in Covered Bonds represented by a Registered Global Certificate within DTC, Euroclear and Clearstream will be effected in accordance with the customary rules and operating procedures of the relevant clearing system. The laws in some States within the United States require that certain persons take physical delivery of securities in definitive form. Consequently, the ability to transfer Covered Bonds represented by a Registered Global Certificate to such persons may depend upon the ability to exchange such Covered Bonds for Covered Bonds in definitive form.

Similarly, because DTC can only act on behalf of Direct Participants in the DTC system who in turn act on behalf of Indirect Participants, the ability of a person having an interest in Covered Bonds represented by a Registered Global Certificate accepted by DTC to pledge such Covered Bonds to persons or entities that do not participate in the DTC system or otherwise to take action in respect of such Covered Bonds may depend upon the ability to exchange such Covered Bonds for Covered Bonds in definitive form. The ability of any holder of Covered Bonds represented by a Registered Global Certificate accepted by DTC to resell, pledge or otherwise transfer such Covered Bonds may be impaired if the proposed transferee of such Covered Bonds is not eligible to hold such Covered Bonds through a direct or indirect participant in the DTC system.

Subject to compliance with the transfer restrictions applicable to the Registered Covered Bonds described under *"Subscription and Sale and Transfer and Selling Restrictions,"* cross-market transfers between DTC, on the one hand, and directly or indirectly through Clearstream or Euroclear accountholders, on the other will be effected by the relevant clearing system in accordance with its rules and through action taken by the Registrar, the Principal Paying Agent and any custodian ("**Custodian**") with whom the relevant Registered Global Covered Bonds have been deposited.

On or after the Issue Date for any Series, transfers of Covered Bonds of such Series between accountholders in Clearstream and Euroclear and transfers of Covered Bonds of such Series between participants in DTC will generally have a settlement date two business days after the trade date (T+2). The customary arrangements for delivery versus payment will apply to such transfers.

Cross-market transfers between accountholders in Clearstream or Euroclear and DTC participants will need to have an agreed settlement date between the parties to such transfer. Because there is no direct link between DTC, on the one hand, and Clearstream and Euroclear, on the other, transfers of interests in the relevant Registered Global Covered Bonds will be effected through the Registrar, the Principal Paying Agent and the Custodian receiving instructions (and, where appropriate, certification) from the transferor and arranging for delivery of the interests being transferred to the credit of the designated account for the transferee. In the case of cross-market transfers, settlement between Euroclear or Clearstream accountholders and DTC participants cannot be made on a delivery versus payment basis. The securities will be delivered on a free delivery basis and arrangements for payment must be made separately.

DTC, Clearstream and Euroclear have each published rules and operating procedures designed to facilitate transfers of beneficial interests in Registered Global Covered Bonds among participants and accountholders of DTC, Clearstream and Euroclear. However, they are under no obligation to perform or continue to perform such procedures, and such procedures may be discontinued or changed at any time. None of the Issuer, the Agents or

any Dealer will be responsible for any performance by DTC, Clearstream or Euroclear or their respective direct or indirect participants or accountholders of their respective obligations under the rules and procedures governing their operations and none of them will have any liability for any aspect of the records relating to or payments made on account of beneficial interests in the Covered Bonds represented by Registered Global Covered Bonds or for maintaining, supervising or reviewing any records relating to such beneficial interests.

SUBSCRIPTION AND SALE AND TRANSFER AND SELLING RESTRICTIONS

The Arranger and the Dealers have in a dealer agreement dated 24 December 2020 (as amended, supplemented and/or restated from time to time, the “**Dealer Agreement**”) agreed with the Issuer a basis upon which they or any other Dealer appointed from time to time in respect of a specific issue of Covered Bonds may from time to time agree to purchase Covered Bonds. Any such agreement will extend to those matters stated under “*Terms and Conditions of the Covered Bonds*.” In the Dealer Agreement, the Issuer has agreed to reimburse the Arranger and the Dealers for certain of their expenses in connection with the establishment of the Programme and the issue of Covered Bonds under the Programme and to indemnify the Arranger and the Dealers against certain liabilities incurred by them in connection therewith.

In order to facilitate the offering of any Tranche of the Covered Bonds, certain persons participating in the offering of the Tranche may engage in transactions that stabilise, maintain or otherwise affect the market price of the relevant Covered Bonds during and after the offering of the Tranche. Specifically, such persons may over-allot or create a short position in the Covered Bonds for their own account by selling more Covered Bonds than have been sold to them by the Issuer. Such persons may also elect to cover any such short position by purchasing Covered Bonds in the open market. In addition, such persons may stabilise or maintain the price of the Covered Bonds by bidding for or purchasing Covered Bonds in the open market and may impose penalty bids, under which selling concessions allowed to syndicate members or other broker-dealers participating in the offering of the Covered Bonds are reclaimed if Covered Bonds previously distributed in the offering are repurchased in connection with stabilisation transactions or otherwise. The effect of these transactions may be to stabilise or maintain the market price of the Covered Bonds at a level above that which might otherwise prevail in the open market. The imposition of a penalty bid may also affect the price of the Covered Bonds to the extent that it discourages resales thereof. No representation is made as to the magnitude or effect of any such stabilising or other transactions. Such transactions, if commenced, may be discontinued at any time. Under UK laws and regulations, stabilising activities may only be carried on by the Stabilisation Manager named in the applicable Pricing Supplement and must end no later than the earlier of 30 days following the Issue Date of the relevant Tranche of Covered Bonds and 60 days following the date of the allotment of the relevant Tranche of Covered Bonds.

Certain Relationships

The Arranger and the Dealers and certain of their affiliates may have performed certain investment banking and advisory services for the Issuer or its affiliates from time to time for which they have received customary fees and expenses and may, from time to time, engage in transactions with, and perform services for, the Issuer or its affiliates in the ordinary course of business. The Arranger and the Dealers and certain of their affiliates may purchase Covered Bonds and be allocated Covered Bonds for asset management and/or proprietary purposes but not with a view to distribution.

The Arranger and the Dealers and their respective affiliates may purchase Covered Bonds for their own accounts and enter into transactions, including credit derivatives, such as asset swaps, repackaging and credit default swaps relating to Covered Bonds and/or other securities of the Issuer or its subsidiaries or associates, at the same time as the offer and sale of Covered Bonds or in secondary market transactions. Such transactions would be carried out as bilateral trades with selected counterparties and separately from any existing sale or resale of Covered Bonds to which this Offering Circular relates (notwithstanding that such selected counterparties may also be purchasers of Covered Bonds).

Transfer Restrictions

As a result of the following restrictions, purchasers of Covered Bonds in the United States are advised to consult legal counsel prior to making any purchase, offer, sale, resale or other transfer of such Covered Bonds.

Each purchaser of Registered Covered Bonds (other than a person purchasing an interest in a Global Certificate with a view to holding it in the form of an interest in the same Global Certificate) or person wishing to transfer an interest from one Global Certificate to another or from global to definitive form or Subscription and Sale and Transfer and Selling Restrictions vice versa, will be required to acknowledge, represent and agree as follows (terms used in this paragraph that are defined in Rule 144A or in Regulation S are used herein as defined therein):

- (i) that either: (a) it is a QIB, purchasing (or holding) the Covered Bonds for its own account or for the account of one or more QIBs and it is aware that any sale to it is being made in reliance on Rule 144A; or (b) it is outside the United States and is not a U.S. person;

- (ii) that the Covered Bonds are being offered and sold in a transaction not involving a public offering in the United States within the meaning of the Securities Act, and that the Covered Bonds have not been and will not be registered under the Securities Act or any other applicable U.S. state securities laws and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except as set forth below;
- (iii) that, unless it holds an interest in a Unrestricted Global Certificate and either is a person located outside the United States or is not a U.S. person, if in the future it decides to resell, pledge or otherwise transfer the Covered Bonds or any beneficial interests in the Covered Bonds, it will do so, prior to the date which is one year after the later of the last Issue Date and the last date on which the Issuer or an affiliate of the Issuer was the owner of such Covered Bonds, only (a) to the Issuer or any affiliate thereof, (b) inside the United States to a person whom the seller reasonably believes is a QIB purchasing for its own account or for the account of a QIB in a transaction meeting the requirements of Rule 144A, (c) outside the United States in compliance with Rule 903 or Rule 904 under the Securities Act, (d) pursuant to the exemption from registration provided by Rule 144 under the Securities Act (if available) or (e) pursuant to an effective registration statement under the Securities Act, in each case in accordance with all applicable U.S. state securities laws;
- (iv) it will, and will require each subsequent holder to, notify any purchaser of the Covered Bonds from it of the resale restrictions referred to in paragraph (iii) above, if then applicable;
- (v) that Covered Bonds initially offered in the United States to QIBs will be represented by one or more Restricted Global Certificates and that Covered Bonds offered outside the United States in reliance on Regulation S will be represented by one or more Unrestricted Global Certificates;
- (vi) that the Covered Bonds, other than the Unrestricted Global Certificates, will bear a legend to the following effect unless otherwise agreed to by the Issuer:

“THE COVERED BONDS IN RESPECT OF WHICH THIS RESTRICTED GLOBAL CERTIFICATE IS ISSUED (THE “**COVERED BONDS**”) HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE “**SECURITIES ACT**”), OR ANY OTHER APPLICABLE U.S. STATE SECURITIES LAWS AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, U.S. PERSONS EXCEPT AS SET FORTH IN THE FOLLOWING SENTENCE. BY ITS ACQUISITION HEREOF, THE HOLDER (A) REPRESENTS THAT IT IS A “QUALIFIED INSTITUTIONAL BUYER” (AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT) PURCHASING THE COVERED BONDS FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF ONE OR MORE QUALIFIED INSTITUTIONAL BUYERS; (B) AGREES THAT IT WILL NOT RESELL OR OTHERWISE TRANSFER THE COVERED BONDS EXCEPT IN ACCORDANCE WITH THE TRUST DEED AND, PRIOR TO THE DATE WHICH IS TWO YEARS AFTER THE LATER OF THE LAST ISSUE DATE FOR THE SERIES AND THE LAST DATE ON WHICH THE ISSUER OR AN AFFILIATE OF THE ISSUER WAS THE OWNER OF SUCH COVERED BONDS OTHER THAN (1) TO THE ISSUER OR ANY AFFILIATE THEREOF, (2) INSIDE THE UNITED STATES TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER WITHIN THE MEANING OF RULE 144A UNDER THE SECURITIES ACT PURCHASING FOR ITS OWN ACCOUNT OR FOR THE ACCOUNT OF A QUALIFIED INSTITUTIONAL BUYER IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A, (3) OUTSIDE THE UNITED STATES IN COMPLIANCE WITH RULE 903 OR RULE 904 UNDER THE SECURITIES ACT, (4) PURSUANT TO THE EXEMPTION FROM REGISTRATION PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE) OR (5) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT, IN EACH CASE IN ACCORDANCE WITH ALL APPLICABLE SECURITIES LAWS OF THE STATES OF THE UNITED STATES AND ANY OTHER JURISDICTION; AND (C) IT AGREES THAT IT WILL DELIVER TO EACH PERSON TO WHOM THE COVERED BONDS ARE TRANSFERRED A NOTICE SUBSTANTIALLY TO THE EFFECT OF THIS LEGEND.”;

- (vii) if it is outside the United States and is not a U.S. person, that if it should resell or otherwise transfer the Covered Bonds prior to the expiration of the “Distribution Compliance Period” (defined as 40 days after the later of the commencement of the offering and the closing date with respect to the original issuance of the Covered Bonds), it will do so only (a)(i) outside the United States in compliance with Rule 903 or 904 under the Securities Act or (ii) to a QIB in compliance with Rule 144A and (b) in

accordance with all applicable U.S. state securities laws; and it acknowledges that the Unrestricted Global Certificates will bear a legend to the following effect unless otherwise agreed to by the Issuer:

“THE COVERED BONDS IN RESPECT OF WHICH THIS UNRESTRICTED GLOBAL CERTIFICATE IS ISSUED (THE “**COVERED BONDS**”) HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE “**SECURITIES ACT**”), OR ANY OTHER APPLICABLE U.S. STATE SECURITIES LAWS AND, ACCORDINGLY, MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, U.S. PERSONS EXCEPT IN ACCORDANCE WITH THE TRUST DEED AND PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT OR PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT. THIS LEGEND SHALL CEASE TO APPLY UPON THE EXPIRY OF THE PERIOD OF 40 DAYS AFTER THE COMPLETION OF THE DISTRIBUTION OF ALL THE COVERED BONDS OF THE TRANCHE OF WHICH THIS COVERED BOND FORMS PART.”; and

- (viii) that the Issuer and others will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements and agrees that if any of such acknowledgements, representations or agreements made by it are no longer accurate, it shall promptly notify the Issuer; and if it is acquiring any Covered Bonds as a fiduciary or agent for one or more accounts it represents that it has sole investment discretion with respect to each such account and that it has full power to make the foregoing acknowledgements, representations and agreements on behalf of each such account.

No sale of Restricted Covered Bonds in the United States to any one purchaser will be for less than US\$200,000 (or its foreign currency equivalent) principal amount and no Restricted Covered Bond will be issued in connection with such a sale in a smaller principal amount. If the purchaser is a non-bank fiduciary acting on behalf of others, each person for whom it is acting must purchase at least US\$200,000 (or its foreign currency equivalent) of Registered Covered Bonds.

Selling Restrictions

United States

The Covered Bonds have not been and will not be registered under the Securities Act and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons, except in certain transactions exempt from the registration requirements of the Securities Act. Terms used in this paragraph have the meanings given to them by Regulation S.

Bearer Covered Bonds are subject to U.S. tax law requirements and may not be offered, sold or delivered within the United States or its possessions or to a United States person, except in certain transactions permitted by U.S. tax regulations. Terms used in this paragraph have the meanings given to them by the U.S. Internal Revenue Code and regulations thereunder.

Each Dealer has agreed and each further Dealer appointed under the Programme will be required to agree that, except as permitted by the Dealer Agreement, it will not offer, sell or, in the case of Bearer Covered Bonds, deliver Covered Bonds (i) as part of their distribution at any time or (ii) otherwise until 40 days after the completion of the distribution of an identifiable tranche of which such Covered Bonds are a part, as determined and certified to the Principal Paying Agent by such Dealer (or, in the case of an identifiable tranche of Covered Bonds sold to or through more than one Dealer, by each of such Dealers with respect to Covered Bonds of an identifiable tranche purchased by or through it, in which case the Principal Paying Agent shall notify such Dealer when all such Dealers have so certified), within the United States or to, or for the account or benefit of, U.S. persons, and it will have sent to each Dealer to which it sells Covered Bonds during the distribution compliance period (other than resales pursuant to Rule 144A) a confirmation or other notice setting out the restrictions on offers and sales of the Covered Bonds within the United States or to, or for the account or benefit of, U.S. persons. Terms used in the preceding sentence have the meanings given to them by Regulation S.

The Covered Bonds are being offered and sold outside the United States to non-U.S. persons in reliance on Regulation S. The Dealer Agreement provides that the Dealers may directly or through their respective U.S. broker-dealer affiliates arrange for the offer and resale of Covered Bonds within the United States only to qualified institutional buyers in reliance on Rule 144A.

In addition, until 40 days after the commencement of the offering of any identifiable tranche of Covered Bonds, an offer or sale of Covered Bonds within the United States by any dealer (whether or not participating in the

offering of such tranche of Covered Bonds) may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with Rule 144A.

This Offering Circular has been prepared by the Issuer for use in connection with the offer and sale of the Covered Bonds outside the United States and for the resale of the Covered Bonds in the United States. The Issuer and the Dealers reserve the right to reject any offer to purchase the Covered Bonds, in whole or in part, for any reason. This Offering Circular does not constitute an offer to any person in the United States or to any U.S. person, other than any qualified institutional buyer within the meaning of Rule 144A to whom an offer has been made directly by one of the Dealers or its U.S. broker-dealer affiliate. Distribution of this Offering Circular by any non-U.S. person outside the United States or by any qualified institutional buyer in the United States to any U.S. person or to any other person within the United States, other than any qualified institutional buyer and those persons, if any, retained to advise such non-U.S. person or qualified institutional buyer with respect thereto, is unauthorised and any disclosure without the prior written consent of the Issuer of any of its contents to any such U.S. person or other person within the United States, other than any qualified institutional buyer and those persons, if any, retained to advise such non-U.S. person or qualified institutional buyer, is prohibited.

Prohibition of Sales to EEA Retail Investors

Unless the Pricing Supplement in respect of any Covered Bonds specifies the “Prohibition of Sales to EEA Retail Investors” as “Not Applicable,” each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Covered Bonds which are the subject of the offering contemplated by this Offering Circular as completed by the Pricing Supplement in relation thereto to any retail investor in the European Economic Area. For the purposes of this provision:

- (a) the expression “retail investor” means a person who is one (or more) of the following:
 - (i) a retail client as defined in point (11) of Article 4(1) of MiFID II; or
 - (ii) a customer within the meaning of the Insurance Distribution Directive, where that customer would not qualify as a professional client as defined in point (10) of Article 4(1) of MiFID II; or
 - (iii) not a qualified investor as defined in the Prospectus Regulation; and
- (b) the expression “offer” includes the communication in any form and by any means of sufficient information on the terms of the offer and the Covered Bonds to be offered so as to enable an investor to decide to purchase or subscribe for the Covered Bonds.

If the Pricing Supplement in respect of any Covered Bonds specifies “Prohibition of Sales to EEA Retail Investors” as “Not Applicable,” in relation to each Member State of the European Economic Area (each, a “**Relevant Member State**”), each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not made and will not make an offer of Covered Bonds which are the subject of the offering contemplated by this Offering Circular as completed by the final terms in relation thereto to the public in that Relevant Member State except that it may make an offer of such Covered Bonds to the public in that Relevant Member State:

- (a) if the final terms in relation to the Covered Bonds specify that an offer of those Covered Bonds may be made other than pursuant to Article 1(4) of the Prospectus Regulation in that Relevant Member State (a “**Non-exempt Offer**”), following the date of publication of a prospectus in relation to such Covered Bonds which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, provided that any such prospectus has subsequently been completed by the final terms contemplating such Non-exempt Offer, in accordance with the Prospectus Regulation, in the period beginning and ending on the dates specified in such prospectus or final terms, as applicable and the Issuer has consented in writing to its use for the purpose of that Non-exempt Offer;
- (b) at any time to any legal entity which is a qualified investor as defined in the Prospectus Regulation;
- (c) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), subject to obtaining the prior consent of the relevant Dealer or Dealers nominated by the Issuer for any such offer; or
- (d) at any time in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of Covered Bonds referred to in (b) to (d) above shall require the Issuer or any Dealer to publish a prospectus pursuant to Article 3 of the Prospectus Regulation, or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an “offer of Covered Bonds to the public” in relation to any Covered Bonds in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Covered Bonds to be offered so as to enable an investor to decide to purchase or subscribe for the Covered Bonds and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129, as amended.

Prohibition of Sales to UK Retail Investors

Unless the Pricing Supplement in respect of any Covered Bonds specifies the “Prohibition of Sales to UK Retail Investors” as “Not Applicable,” each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Covered Bonds which are the subject of the offering contemplated by this Offering Circular as completed by the Pricing Supplement in relation thereto to any retail investor in the United Kingdom. For the purposes of this provision:

- (a) the expression “retail investor” means a person who is one (or more) of the following:
 - (i) a retail client, as defined in point (8) of Article 2 of Regulation (EU) No 2017/565 as it forms part of domestic law by virtue of the EUWA; or
 - (ii) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the FSMA to implement the Insurance Distribution Directive, where that customer would not qualify as a professional client, as defined in point (8) of Article 2(1) of Regulation (EU) No 600/2014 as it forms part of domestic law by virtue of the EUWA; or
 - (iii) not a qualified investor as defined in Article 2 of the Prospectus Regulation as it forms part of domestic law by virtue of the EUWA; and
- (b) the expression “offer” includes the communication in any form and by any means of sufficient information on the terms of the offer and the Covered Bonds to be offered so as to enable an investor to decide to purchase or subscribe for the Covered Bonds.

If the Pricing Supplement in respect of any Covered Bonds specifies “Prohibition of Sales to UK Retail Investors” as “Not Applicable”, each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not made and will not make an offer of Covered Bonds which are the subject of the offering contemplated by the Offering Circular as completed by the Pricing Supplement in relation thereto to the public in the United Kingdom except that it may make an offer of such Covered Bonds to the public in the United Kingdom:

- (a) if the Pricing Supplement in relation to the Covered Bonds specify that an offer of those Covered Bonds may be made other than pursuant to section 86 of the FSMA (a “**Public Offer**”), following the date of publication of a prospectus in relation to such Covered Bonds which has been approved by the Financial Conduct Authority, provided that any such prospectus has subsequently been completed by the Pricing Supplement contemplating such Public Offer, in the period beginning and ending on the dates specified in such prospectus or the Pricing Supplement, as applicable and the Issuer has consented in writing to its use for the purpose of that Public Offer;
- (b) at any time to any legal entity which is a qualified investor as defined in Article 2 of the UK Prospectus Regulation;
- (c) at any time to fewer than 150 natural or legal persons (other than qualified investors as defined in Article 2 of the UK Prospectus Regulation) as it forms part of domestic law by virtue of the EUWA in the United Kingdom subject to obtaining the prior consent of the relevant Dealer or Dealers nominated by the Issuer for any such offer; or
- (d) at any time in any other circumstances falling within section 86 of the FSMA,

provided that no such offer of Covered Bonds referred to in (b) to (d) above shall require the Issuer or any Dealer to publish a prospectus pursuant to section 85 of the FSMA, or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation.

For the purposes of this provision, the expression an “offer of Covered Bonds to the public” in relation to any Covered Bonds means the communication in any form and by any means of sufficient information on the terms of the offer and the Covered Bonds to be offered so as to enable an investor to decide to purchase or subscribe for the Covered Bonds and the expression “UK Prospectus Regulation” means the Prospectus Regulation as it forms part of domestic law by virtue of the EUWA.

Other regulatory restrictions

Each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that:

- (a) in relation to any Covered Bonds which have a maturity of less than one year, (i) it is a person whose ordinary activities involve it in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of its business and (ii) it has not offered or sold and will not offer or sell the Covered Bonds other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or who it is reasonable to expect will acquire, hold, manage or dispose of investments (as principal or agent) for the purposes of their businesses where the issue of the Covered Bonds would otherwise constitute a contravention of Section 19 of the FSMA by the Issuer;
- (b) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of the Covered Bonds in circumstances in which Section 21(1) of the FSMA does not apply to the Issuer; and
- (c) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Covered Bonds in, from or otherwise involving the United Kingdom.

Japan

The Covered Bonds have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended, the “**Financial Instruments and Exchange Act**”). Accordingly, each Dealer has represented and agreed that it has not, directly or indirectly, offered or sold and will not, directly or indirectly, offer or sell any Covered Bonds in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organised under the laws of Japan) or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and other relevant laws and regulations of Japan.

Singapore

Each Dealer has acknowledged, and each further Dealer appointed under the Programme will be required to acknowledge, that this Offering Circular has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that it has not offered or sold any Covered Bonds or caused the Covered Bonds to be made the subject of an invitation for subscription or purchase and will not offer or sell any Covered Bonds or cause the Covered Bonds to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Circular or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Covered Bonds, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act 2001 of Singapore, as modified or amended from time to time (the “SFA”)) pursuant to Section 274 of the SFA; or (ii) to an accredited investor (as defined in Section 4A of the SFA) pursuant to and in accordance with the conditions specified in Section 275 of the SFA.

Hong Kong

Each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree, that:

- (a) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Covered Bonds except for Covered Bonds which are a “structured product” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the “SFO”) other than (i) to “professional investors”

as defined in the SFO and any rules made under the SFO; or (ii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong (the “C(WUMP)O”) or which do not constitute an offer to the public within the meaning of the C(WUMP)O; and

- (b) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Covered Bonds, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Covered Bonds which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made under the SFO.

Korea

The Covered Bonds have not been and will not be registered with the Financial Services Commission of Korea under the FSCMA.

Each Dealer has represented and agreed, and each further Dealer appointed under the Programme will be required to represent and agree that:

- (a) in respect of the Covered Bonds relying on the exemption as set out in Article 2-2-2, Paragraph 2, Item 3 of the Securities Issuance and Disclosure Regulations promulgated by the Financial Services Commission of Korea, the Covered Bonds may not be offered, sold or delivered, directly or indirectly, in Korea or to, or for the account or benefit of, any resident of Korea (as defined under the Foreign Exchange Transactions Act of Korea and the rules and regulations promulgated thereunder) or to others for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except as otherwise permitted under applicable Korean laws and regulations. In addition, during the first year after the issuance of the Covered Bonds, the Covered Bonds may not be transferred to any resident of Korea other than a “qualified institutional buyer” (a “Korean QIB,” as defined in the Securities Issuance and Disclosure Regulations) who is registered with the Korea Financial Investment Association as a Korean QIB, provided that (i) the Covered Bonds are denominated, and the principal and interest payments thereunder are made, in a currency other than Korean won, (ii) the amount of the Covered Bonds acquired by the Korean QIBs in the primary market is limited to not more than 20% of the aggregate principal amount of the Covered Bonds, (iii) the Covered Bonds are listed on one of the major overseas securities markets designated by the Financial Supervisory Service of Korea, or certain procedures, such as registration or report with a foreign financial investment regulator of the country in which any major overseas securities market is established, have been completed for offering of the Covered Bonds, (iv) the one-year restriction on transfer of Covered Bonds to any resident of Korea other than the Korean QIBs is expressly stated in the Covered Bonds, the relevant purchase agreement and offering circular and (v) the Issuer and the Dealers shall individually or collectively keep the evidence of fulfilment of conditions (i) through (iv) above after having taken necessary actions therefor; and
- (b) in respect of the Covered Bonds relying on the exemption as set out in Article 2-2-2, Paragraph 2 (other than Item 3) of the Securities Issuance and Disclosure Regulations promulgated by the Financial Services Commission of Korea, the Covered Bonds may not be offered, sold or delivered, directly or indirectly, in Korea or to, or for the account or benefit of, any resident of Korea (as defined under the Foreign Exchange Transactions Act of Korea and the rules and regulations promulgated thereunder) or to others for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except as otherwise permitted under applicable Korean laws and regulations. In addition, during the first year after the issuance of the Covered Bonds, the Covered Bonds may not be transferred to any resident of Korea except as otherwise permitted under applicable Korean laws and regulations.

Each Dealer has undertaken, and each further Dealer appointed under the Programme will be required to undertake, to ensure that any securities dealer to which it sells the Covered Bonds confirms that it is purchasing such Covered Bonds as principal and agrees with such Dealer that it will comply with the restrictions described above.

Australia

No prospectus or other disclosure document (as defined in the Corporations Act 2001 of Australia (the “Corporations Act”) in relation to the Programme or any Covered Bond has been or will be lodged with the

Australian Securities and Investments Commission (“ASIC”). Each Dealer has represented and agreed and each further Dealer appointed under the Programme will be required to represent and agree that it:

- (a) has not (directly or indirectly) offered, and will not offer for issue or sale and has not invited, and will not invite, applications for issue, or offers to purchase, the Covered Bond in, to or from Australia (including an offer or invitation which is received by a person in Australia); and
- (b) has not distributed or published, and will not distribute or publish, any information memorandum, advertisement or other offering material relating to the Covered Bond in Australia,

unless (i) the aggregate consideration payable by each offeree or invitee is at least AUD 500,000 (or its equivalent in other currencies, disregarding moneys lent by the offeror or its associates) or the offer or invitation otherwise does not require disclosure to investors in accordance with Part 6D.2 of the Corporations Act, (ii) such action complies with all applicable laws, regulations and directives, and (iii) such action does not require any document to be lodged with ASIC.

Canada

Prospective Canadian investors are advised that the information contained within this Offering Circular, and additionally, the relevant Pricing Supplement or any other offering material relating to the Covered Bonds has not been prepared with regard to matters that may be of particular concern to Canadian investors. Accordingly, prospective Canadian investors should consult with their own legal, financial and tax advisers concerning the information contained within this Offering Circular, the relevant Pricing Supplement or any other offering material relating to the Covered Bonds and as to the suitability of an investment in the Covered Bonds in their particular circumstances.

The offer and sale of the Covered Bonds in Canada will only be made under exemptions from the requirement to file a prospectus with the Canadian securities regulators and will be made only by authorised dealer representatives that are properly registered under the laws of the relevant Canadian jurisdictions or, alternatively, that are entitled to rely on exemptions from the dealer registration requirements in the relevant Canadian jurisdictions.

The Covered Bonds may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in NI 45-106 or subsection 73.3(1) of the Securities Act (Ontario), and that are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the Covered Bonds must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this Offering Circular, the relevant Pricing Supplement or any other offering material constituting an “offering memorandum” under applicable Canadian securities laws (including any amendment to any such documents) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal adviser.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (“NI 33-105”), the Dealers are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with an offering of Covered Bonds.

The Issuer hereby notifies prospective Canadian purchasers that: (a) it may be required to provide personal information pertaining to the purchaser as required to be disclosed in Schedule I of Form 45106F1 under NI 45-106 (including its name, address, telephone number and the aggregate purchase price of any Covered Bonds purchased) (“**personal information**”), which Form 45-106F1 may be required to be filed by the Issuer under NI 45-106, (b) such personal information may be delivered to the Ontario Securities Commission (the “OSC”) in accordance with NI 45-106, (c) such personal information is collected indirectly by the OSC under the authority granted to it under the securities legislation of Ontario, (d) such personal information is collected for the purposes of the administration and enforcement of the securities legislation of Ontario, and (e) the public official in Ontario who can answer questions about the OSC’s indirect collection of such personal information is the Administrative Support Clerk at the OSC, Suite 1903, Box 55, 20 Queen Street West, Toronto, Ontario M5H 3S8, telephone: (416) 593-3684. Prospective Canadian purchasers that purchase Covered Bonds in this offering

will be deemed to have authorised the indirect collection of the personal information by the OSC, and to have acknowledged and consented to its name, address, telephone number and other specified information, including the aggregate purchase price paid by the purchaser, being disclosed to other Canadian securities regulatory authorities, and to have acknowledged that such information may become available to the public in accordance with requirements of applicable Canadian laws.

Upon receipt of this Offering Circular, each Canadian purchaser hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the Covered Bonds described herein (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. Par la réception de cette prospectus de base, chaque acheteur canadien confirme par les présentes qu'il a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation d'achat ou tout avis) soient rédigés en anglais seulement.

General

Each Dealer has agreed, and each further Dealer appointed under the Programme will be required to agree, that it will (to the best of its knowledge and belief) comply with all applicable securities laws and regulations in force in any jurisdiction in which it purchases, offers, sells or delivers the Covered Bonds or possesses or distributes this Offering Circular, and will obtain any consent, approval or permission required by it for the purchase, offer, sale or delivery by it of the Covered Bonds under the laws and regulations in force in any jurisdiction to which it is subject or in which it makes such purchases, offers, sales or deliveries, and none of the Issuer, the Arranger or any other Dealer shall have any responsibility therefor.

If a jurisdiction requires that any offering of the Covered Bonds under the Programme be made by a licenced broker or dealer and the Arranger or any Dealer or any affiliate of the Arranger or any Dealer is a licenced broker or dealer in that jurisdiction, the offering shall be deemed to be made by the Arranger, such Dealer or such affiliate on behalf of the Issuer in such jurisdiction.

None of the Issuer, the Arranger or any of the Dealers represents that the Covered Bonds may at any time lawfully be sold in compliance with any applicable registration or other requirements in any jurisdiction, or pursuant to any exemption available thereunder, or assumes any responsibility for facilitating such sale.

With regard to each Tranche, the Arranger and the relevant Dealer will be required to comply with such other additional restrictions as the Issuer, the Arranger and the relevant Dealer shall agree and as shall be set out in the applicable Pricing Supplement.

GENERAL INFORMATION

Authorisation

The establishment of the Programme and the issue of Covered Bonds under the Programme have been duly authorised by a resolution of the Board of the Issuer dated 25 November 2020.

Listing of the Covered Bonds on the SGX-ST

Approval in-principle has been received from the SGX-ST in connection with the Programme and application will be made for the listing and quotation of any Covered Bonds that may be issued pursuant to the Programme and which are agreed, at or prior to the time of issue thereof, to be so listed and quoted on the SGX-ST. Such permission will be granted when such Covered Bonds have been admitted for listing and quotation on the SGX-ST. The SGX-ST assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained, herein. Approval in-principle from, admission to the Official List of, and listing and quotation of any of the Covered Bonds on, the SGX-ST are not to be taken as an indication of the merits of the Issuer, the Programme or the Covered Bonds.

Documents Available

From the date hereof and so long as Covered Bonds are capable of being issued under the Programme, copies of the following documents will, when published, be available for inspection at the registered office of the Issuer (in the case of clause (v) below, those documents will also be available at the specified office of the Principal Paying Agent, being at the Issue Date at Citibank, N.A., London Branch, Citigroup Centre, Canada Square, Canary Wharf, London E14 5LB, United Kingdom at all reasonable times following written request and proof of holding and identity satisfactory to the Principal Paying Agent or, as the case may be, the Trustee, during usual business hours (being between 9:00 a.m. (London time) and 3:00 p.m. (London time))):

- (i) the constitutional documents (together with English translations) of the Issuer;
- (ii) the audited consolidated and separate financial statements of the Issuer as of and for the years ended 31 December 2022 and 2021 and the audited consolidated and separate financial statements of the Issuer as of and for the years ended 31 December 2023 and 2022 (together with English translations);
- (iii) the reviewed consolidated and separate financial statements of the Issuer as of 30 September 2024 and for the nine-month periods ended 30 September 2024 and 2023 (together with English translations);
- (iv) the most recently published (if available) audited consolidated and separate financial statements of the Issuer and the most recently published (if available) reviewed consolidated and separate interim financial statements of the Issuer (together with English translations);
- (v) the Transaction Documents;
- (vi) a copy of this Offering Circular;
- (vii) any future offering circulars, information memoranda and supplements, including Pricing Supplements (save that a Pricing Supplement relating to an unlisted Covered Bond will only be available for inspection by a holder of such Covered Bond and such holder must produce evidence satisfactory to the Issuer or the relevant Paying Agent, as the case may be, as to its holding and identity), to this Offering Circular and any other documents incorporated herein or therein by reference; and
- (viii) in the case of each issue of listed Covered Bonds subscribed pursuant to a subscription agreement, the subscription agreement (or equivalent document).

Clearing Systems

The Covered Bonds have been accepted for clearance through Euroclear and Clearstream. The appropriate Common Code and ISIN for each Tranche of Covered Bonds allocated by Euroclear and Clearstream will be specified in the applicable Pricing Supplement. In addition, the Issuer will make an application for any Registered Covered Bonds to be accepted for trading in book-entry form by DTC. The CUSIP number for each Tranche of Registered Covered Bonds, together with the relevant ISIN and Common Code, will be specified in the applicable Pricing Supplement. If the Covered Bonds are to clear through an additional or alternative clearing system, the appropriate information will be specified in the applicable Pricing Supplement.

Significant or Material Change

Save as disclosed in this Offering Circular, there has been no significant change in the financial or trading position of the Issuer and its subsidiaries since 30 September 2024 and there has been no material adverse change in the financial position or prospects of the Issuer and its subsidiaries since 30 September 2024.

Litigation

Other than as described in “*Hana Bank — Legal and Regulatory Proceedings*,” neither the Issuer nor any of its subsidiaries (whether as defendant or otherwise) is engaged in any legal, arbitration, administrative or other proceedings, the results of which might have or have had in the recent past (covering at least the previous 12 months) a significant effect on the financial position or the operations of the Issuer and its subsidiaries nor is the Issuer aware of any such proceedings pending or being threatened.

Independent Auditors

The audited consolidated financial statements of the Bank as of and for the year ended 31 December 2021 have been audited by Ernst & Young Han Young, independent auditors, as stated in their independent auditor’s report appearing herein.

The independent auditor’s report on the consolidated financial statements of the Bank as of and for the year ended on 31 December 2021 contains the following emphasis of matter paragraph:

“We draw attention to the following items which the users of the consolidated financial statements may use as reference for reasonable decision making. As described in Note 28-8 to the consolidated financial statements, various prevention and controls measures, including travel restrictions, are being implemented worldwide to prevent the spread of COVID-19, and as a result, the global economy is affected extensively. The Group is concerned about the global economic difficulties and the uncertainties related to the prolonged economic conditions due to COVID-19. The Group periodically checks the uncertainties of COVID-19 that may affect the Group’s operations and financial position. The ultimate impact due to COVID-19 on the Group’s consolidated financial position, results of operations and cash flows is difficult to predict as of the date of our auditor’s report. Our opinion is not modified in respect of this matter.”

The audited consolidated financial statements of the Bank as of and for the years ended 31 December 2023 and 2022 have been audited by Deloitte Anjin LLC, independent auditors, as stated in their independent auditor’s report appearing herein.

With respect to the Issuer’s unaudited interim consolidated financial statements as of 30 September 2024 and for the nine months ended 30 September 2024 and 2023 included in this Offering Circular, Deloitte Anjin LLC reported that they have applied limited procedures in accordance with professional standards for a review of such information. However, their separate report for the unaudited interim consolidated financial statements dated 13 November 2024, included herein, states that they did not audit and they do not express an opinion on such unaudited financial statements. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied.

GLOSSARY

The following is a summary of the definitions of capitalised terms set forth in the Master Definitions Agreement. Except where the context otherwise requires, capitalised terms used and not otherwise defined in this Offering Circular shall bear the meanings given to them in the Master Definitions Agreement.

“Acceleration Notice”	has the meaning given in Condition 10(b) (<i>Covered Bond Events of Default</i>).
“Account Bank”	means: (a) the Transaction Account Bank in connection with the Transaction Account; (b) each of the Reserve Account Banks in connection with the Cover Pool Cash Accounts (other than the Transaction Account); and/or (c) the Custodian Bank in connection with the Swap Securities Collateral Account(s) (if any), or, in each case, any successors, assigns and replacements acting as such.
“Account Bank Agreement”	means: (a) the Korean Account Bank Agreement in connection with Hana Bank (or any successors, assigns and replacements) acting in its capacities as Transaction Account Bank and a Reserve Account Bank; (b) the Hong Kong Account Bank Agreement in connection with Citibank, N.A., Hong Kong Branch (or any successors, assigns and replacements) acting in its capacity as a Reserve Account Bank; and (c) the Custodian Bank Agreement in connection with Citibank, N.A., Hong Kong Branch (or any successors, assigns and replacements) acting in its capacity as Custodian Bank.
“Account Bank Termination Event”	means a Transaction Account Bank Termination Event, a Reserve Account Bank Termination Event or a Custodian Bank Termination Event, as applicable.
“Additional Filing Date”	means, in respect of any additional asset in the Cover Pool, the date on which an additional filing to amend or supplement the Covered Bond Issuance Plan is made with the FSC to register such asset as part of the Cover Pool.
“Adjusted Aggregate Loan Amount”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed — Asset Coverage Test.</i> ”
“Agency Agreement”	has the meaning given in the Conditions.
“Agents”	means the Issuing and Paying Agent, the other Paying Agents, each Calculation Agent, the Registrars and the Transfer Agents or any of them and shall include such other Agent or Agents as may be appointed from time to time under the Agency Agreement.
“Agreed Procedures”	means certain procedures set out in the Asset Monitor Agreement, as amended from time to time by agreement between the Issuer and the Asset Monitor, to test the arithmetical accuracy of the Asset Coverage Test and the Amortisation Test.
“Amortisation Test”	has the meaning given in “ <i>Summary of the Principal Documents — Asset Monitor Agreement—Amortisation Test.</i> ”
“Amortisation Test Adjusted Aggregate Loan Amount”	has the meaning given in “ <i>Summary of the Principal Documents — Asset Monitor Agreement—Amortisation Test.</i> ”
“Appointee”	means any attorney, manager, agent, delegate, nominee, custodian or other person appointed by the Trustee under the Trust Deed.

“Asset Coverage Test”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed—Asset Coverage Test.</i> ”
“Asset Coverage Test Breach Notice”	means the notice required to be served by the Asset Monitor pursuant to the Establishment Deed if the Asset Coverage Test has not been met.
“Asset Monitor”	means Korea Housing Finance Corporation or any successors, assigns and replacements acting as asset monitor under the Asset Monitor Agreement.
“Asset Monitor ACT Calculation Date”	means each Calculation Date in respect of which the Asset Monitor shall perform the Agreed Procedures in relation to the Issuer’s calculation of the Asset Coverage Test, as determined pursuant to the Asset Monitor Agreement.
“Asset Monitor Agreement”	means the asset monitor agreement entered into on or about the Initial Filing Date, as may be amended or restated from time to time, between the Asset Monitor, the Issuer and the Trustee.
“Asset Monitor Fee Letter”	means the letter between the Asset Monitor and the Issuer with respect to, inter alia, the fees payable by the Issuer to the Asset Monitor.
“Asset Monitor Report”	has the meaning given in “ <i>Summary of the Principal Documents — Asset Monitor Agreement—Asset Monitor Report.</i> ”
“Asset Monitor Report Date”	has the meaning given in “ <i>Summary of the Principal Documents — Asset Monitor Agreement—Asset Monitor Report.</i> ”
“Asset Percentage”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed—Asset Coverage Test.</i> ”
“Asset Percentage Adjusted Loan Amount”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed—Asset Coverage Test.</i> ”
“Borrower”	means, in relation to a Mortgage Loan Asset, the borrower under the related Mortgage Loan Agreement.
“Business Day”	means: (a) in respect of the Conditions, “Business Day” as defined in Condition 4(h) (<i>Definitions</i>); (b) in respect of the Agency Agreement and each Covered Bond, (i) a day (other than a Saturday or Sunday) on which Euroclear, Clearstream and DTC are operating and (ii) a day (other than a Saturday or Sunday) on which banks and foreign exchange markets are open for general business in the city of the Issuing and Paying Agent’s (and, in the case of Registered Covered Bonds, the city of the Registrar’s) specified office in London, New York, Hong Kong and Seoul and (iii) (if a payment is to be made on that day) a day on which banks and foreign exchange markets are open for general business in the principal financial centre for the currency of the payment or, in the case of euro, a day on which T2 is operating; or (c) otherwise, a day (other than a Saturday or Sunday) on which banks and foreign exchange markets are open for general business in London, New York, Hong Kong and Seoul.
“Business Day Convention”	has the meaning given in Condition 4(b)(ii) (<i>Business Day Convention</i>).
“Calculation Agent”	has the meaning given in the Conditions.

“Calculation Date”	means the last day of each Calculation Period.
“Calculation Period”	means the period from, and including, the first day of each month to, and including, the last day of each month, except that the first Calculation Period means the period from and including the Programme Date to and including the last day of the month in which the Programme Date falls.
“Cash Release Conditions”	means each of the following conditions in which cash standing to the credit of the Transaction Account may be withdrawn by the Issuer: (a) the amount standing to the credit of the Reserve Ledger of the Reserve Cash Account (if any) is not less than the Reserve Fund Required Amount; (b) for so long as the Issuer is in breach of the Pre-Maturity Test, the Pre-Maturity Test Cure Requirement has been satisfied; (c) the Asset Coverage Test was satisfied on the immediately preceding Calculation Date and would have been satisfied on such immediately preceding Calculation Date after taking into account the proposed withdrawal of cash, provided that the Asset Coverage Test shall be deemed to have been satisfied from and including the Programme Date to and excluding the Calculation Date immediately following the first Issue Date under the Programme and this limb shall not apply where no Covered Bonds are issued and remain outstanding at the time of withdrawal; and (d) there is no breach of the Korean Covered Bond Act both before and after the withdrawal.
“Cause of Disposal Event”	has the meaning given in <i>“Summary of the Principal Documents — Establishment Deed—Registration and Amendment of the Covered Bond Issuance Plan.”</i>
“Collateral Security”	means, in respect of a Mortgage Loan: (a) any Mortgage; (b) any: (i) guarantee, indemnity or other assurance; or (ii) asset, which, in either case, secures or otherwise provides for the repayment or payment of that Mortgage Loan but does not include the Mortgage relating to that Mortgage Loan; or (c) any MCI in respect of the Mortgage Loan.
“Collateral Security Provider”	means, with respect to any Collateral Security, the provider of such Collateral Security.
“Contingent Swap Effective Date”	means, in relation to a Swap, a rating or default-based trigger event that is specified as such by the Issuer and the relevant Swap Provider in the relevant Swap.
“Convertibility Notice Event”	means, in relation to a Series of Covered Bonds, the giving of notice by the calculation agent under the relevant Swap Agreement of a Convertibility Occurrence to the Issuer pursuant to the relevant Swap Agreement.
“Convertibility Occurrence”	means, the occurrence of any of the following events: (i) the adoption of any rule, regulation or statute by any governmental or regulatory authority in Korea including, without limitation, MOEF or FSC, or the issuance of any order, decree, ruling or directive by any governmental or regulatory authority in Korea, which has the effect of imposing limitations or restrictions on the convertibility of Korean Won to the Contractual Currency of any Series of Covered Bonds, or limiting or restricting the transfer of the Contractual Currency of any Series of Covered Bonds in any fashion to or from or out of Korea (including, without limitation, limiting the ability of the Swap Provider of such Series of Covered Bonds to make payments under the relevant Swap Agreement), (ii) the general unavailability of the

Contractual Currency of any Series of Covered Bonds at a market spot rate of exchange (applicable to the purchase of the Contractual Currency of any Series of Covered Bonds for Korean Won), or the unavailability of a market quotation in any onshore legal exchange market transfer officially recognised as such by the government of Korea and in accordance with prevailing commercial practise at the time, or (iii) any action taken by the Bank of Korea, MOEF or FSC (or any successor to any of them), which has the effect described in (i) or (ii) above of this definition.

“Coupons”	has the meaning given in the Conditions.
“Cover Pool”	means all assets of the Issuer and rights of the Issuer under the Swaps from time to time registered with the FSC as comprising the cover pool in respect of the Programme under the Korean Covered Bond Laws and the Covered Bond Issuance Plan.
“Cover Pool Account”	means each Cover Pool Cash Account and each Cover Pool Securities Account.
“Cover Pool Cash Account”	means each of the following accounts registered with the FSC as accounts of the Cover Pool: (a) the Transaction Account; (b) each Swap Cash Collateral Account; (c) the Reserve Cash Account; and (d) one or more additional KRW and/or non-KRW denominated cash accounts with either of the Reserve Account Banks or such other bank as may be approved by the Trustee and the Asset Monitor.
“Cover Pool Ledger”	has the meaning given in <i>“Summary of the Principal Documents—Establishment Deed—Establishment and Segregation of the Cover Pool.”</i>
“Cover Pool Priority of Payments”	means the order of priority for the allocation and distribution of amounts from the Cover Pool among the Priority Payment Right Holders as described in <i>“Summary of the Principal Documents—Establishment Deed—Cover Pool Priority of Payments.”</i>
“Cover Pool Securities Accounts”	means each of the following accounts registered with the FSC as accounts of the Cover Pool: (a) each Swap Securities Collateral Account; and (b) the Reserve Securities Account.
“Cover Pool Value”	means the value of the Cover Pool, as determined in accordance with the Korean Covered Bond Laws.
“Covered Bond Event of Default”	has the meaning given in Condition 10(b) (<i>Covered Bond Events of Default</i>).
“Covered Bond Issuance Plan”	means the issuance plan filed by the Issuer on or about the Initial Filing Date in respect of the Programme, as may be amended or supplemented from time to time.
“Custodian Bank”	means Citibank, N.A., Hong Kong Branch or any successors, assigns and replacements acting as such, as custodian in respect of any Swap Securities Collateral Account(s).
“Custodian Bank Agreement”	means the account bank agreement entered into on or about the Programme Date, as may be amended or restated from time to time, between the Custodian Bank, the Issuer, the Trustee and the Asset Monitor and includes any replacement account bank agreement entered into pursuant to the terms of the Custodian Bank Agreement following a Custodian Bank Termination Event.

“Custodian Bank Required Ratings”	means the required ratings specified below in relation to the Custodian Bank (or such other rating or ratings as published by the relevant Rating Agency in its most recent ratings criteria from time to time to maintain the then current ratings of the Covered Bonds by such Rating Agency), except that the relevant ratings shall be those of the guarantor, if the obligations of the Custodian Bank are guaranteed by a guarantor: (a) a short-term issuer default rating of at least “F1” by Fitch or a long-term issuer default rating of at least “A” by Fitch with respect to the Custodian Bank or, if the Custodian Bank does not maintain a rating by Fitch, the Custodian Bank’s head office; and (b) a long-term foreign currency issuer credit rating, or the lower of (i) the long-term foreign currency issuer credit rating of its head office and (ii) the long-term sovereign credit rating of the country in which the Custodian Bank is located, of at least “BBB” by S&P.
“Custodian Bank Termination Event”	has the meaning given in “ <i>Summary of the Principal Documents—Account Bank Agreements—Account Bank Termination and Replacement.</i> ”
“Daily Cash Release”	has the meaning given in “ <i>Summary of the Principal Documents—Establishment Deed—Payments and Cash Release—Daily Cash Release.</i> ”
“Data File”	has the meaning given in “ <i>Summary of the Principal Documents—Asset Monitor Agreement—Provision of Information and Assistance to the Asset Monitor.</i> ”
“Dealer Agreement”	has the meaning given in “ <i>Subscription and Sale and Transfer and Selling Restrictions.</i> ”
“Deemed Reductions”	has the meaning given in “ <i>Summary of the Principal Documents—Establishment Deed—Asset Coverage Test.</i> ”
“Delegate”	has the meaning given in “ <i>Summary of the Principal Documents—Asset Monitor Agreement—The Asset Monitor to Monitor the Cover Pool.</i> ”
“DTI Ratio”	has the meaning given in “ <i>Summary of the Principal Documents—Establishment Deed—Eligibility Criteria.</i> ”
“Eligibility Criteria”	has the meaning given in “ <i>Summary of the Principal Documents—Establishment Deed—Eligibility Criteria.</i> ”
“Eligible Asset Monitor”	means an entity which satisfies the requirements in respect of an asset monitor as set out in the Korean Covered Bond Laws.
“Eligible Liquid Asset”	means a Liquid Asset that, as at the relevant Calculation Date or other applicable date of determination: (a) satisfies the Fitch Qualified Investment Criteria (for so long as any Covered Bonds are rated by Fitch) and (b) for so long as the Programme is rated by S&P, (i) is denominated in KRW; (ii) has the S&P Liquid Asset Required Rating; and (iii) has fixed principal amount due at its maturity and does not include any embedded option (i.e., it is not callable, puttable, or convertible), unless full payment of principal is paid in cash upon the exercise of the relevant option.
“Establishment Deed”	means the establishment deed entered into on or about the Initial Filing Date, as may be amended or restated from time to time, between the Issuer, the Asset Monitor and the Trustee.

“Extended Covered Bonds”	means each Series of Covered Bonds for which an Extended Maturity Date is specified in the relevant Pricing Supplement and in respect of which a Maturity Extension Event has occurred.
“Extended Maturity Date”	means, if applicable in respect of a Series of Covered Bonds, such date that is specified as such in the relevant Pricing Supplement.
“Extension Charges Balance”	in respect of a Swap, has the meaning given in the relevant Swap Agreement.
“Extraordinary Resolution”	means a resolution of the Covered Bondholders passed as such under the terms of the Trust Deed.
“Final Exchange Date”	in respect of a Swap, has the meaning given in the relevant Swap Agreement.
“Final Redemption Amount”	means the Final Redemption Amount determined in accordance with the Conditions.
“Fitch Qualified Investment Criteria”	means, for so long as any Covered Bonds are rated by Fitch, that: (a) in respect of assets that mature in 30 days or less: (i) such assets have a short-term issuer default rating of at least “F1” by Fitch and/or a long-term issuer default rating of at least “A” by Fitch; and (ii) the assets are scheduled to mature within 30 days; or (b) in respect of assets that mature in at least 30 days and not more than 365 days: (i) such assets have a short-term issuer default rating of at least “F1+” by Fitch and/or a long-term issuer default rating of at least “AA-” by Fitch; and (ii) the assets are scheduled to mature before the earlier of 365 days or the next Interest Payment Date; or (c) in respect of assets falling within sub-paragraph (c)(z) of the definition of Liquid Assets, the long-term issuer default rating and short-term issuer default rating of the entity with which the deposits are made are rated at least A or F1 by Fitch or, in each case, such other rating or ratings as published by Fitch in its most recent rating criteria from time to time to maintain the then current ratings of the Covered Bonds by Fitch.
“Fixed Rate Covered Bonds”	means a Covered Bond which bears interest on its outstanding nominal amount in accordance with Condition 4(a) (<i>Interest on Fixed Rate Covered Bonds</i>).
“Floating Rate Covered Bonds”	means a Covered Bond which bears interest on its outstanding nominal amount in accordance with Condition 4(b) (<i>Interest on Floating Rate Covered Bonds</i>).
“FSC Regulations”	means the Supervision Regulations on Issuance of Covered Bonds (FSC Notification No. 2014-12), as amended.
“Hard Bullet Covered Bonds”	means Covered Bonds which are scheduled to be redeemed in full on their relevant Maturity Date without any provision for extension of their scheduled redemption past their Maturity Date and for which an Extended Maturity Date is not specified in the relevant Pricing Supplement.
“Hong Kong Account Bank Agreement”	means the account bank agreement entered into on or about the Initial Filing Date, as may be amended or restated from time to time, in connection with Citibank, N.A., Hong Kong Branch in its capacity as a Reserve Account Bank, the Issuer, the Trustee and the Asset Monitor and includes any replacement account bank agreement entered into pursuant to the terms of such agreement following an Account Bank Termination Event.

“Housing Act”	means the Housing Act of Korea (No. 6916, 28 May 2003), as amended.
“Indexed Valuation”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed—Asset Coverage Test.</i> ”
“Ineligible Mortgage Loan”	means any Mortgage Loan that is in breach of any Mortgage Loan Warranties.
“Initial Cover Pool”	means the portfolio of Underlying Assets, Liquid Assets and Other Assets, particulars of which will be included in the Covered Bond Issuance Plan on or about the Initial Filing Date and registered with the FSC in accordance with the Korean Covered Bond Laws.
“Initial Filing Date”	means, in respect of the initial assets in the Cover Pool, the date on which filing of the Covered Bond Issuance Plan is made with the FSC to register such assets as part of the Cover Pool.
“Interest Payment Date”	has the meaning given in Condition 4(b)(i) (<i>Interest Payment Dates</i>).
“Investor Report”	means each monthly report prepared by the Issuer (or, following the appointment of a Replacement Servicer, the Replacement Servicer) in accordance with the Establishment Deed and made available to the Covered Bondholders, the Trustee and the Rating Agencies detailing, inter alia, compliance with the Asset Coverage Test and which is to be posted on the Issuer’s website (or, following the appointment of a Replacement Servicer, as directed by the Asset Monitor).
“Investor Report Date”	means the 20th day of the month immediately following the relevant Calculation Period or, if such day is not a Korean Business Day, the immediately following Korean Business Day.
“ISDA”	means International Swaps and Derivatives Association, Inc.
“ISDA Master Agreement”	means the 1992 ISDA Master Agreement (Multicurrency Cross Border), as published by ISDA.
“Issue Date”	has the meaning given in the Conditions.
“Issuer Covenant”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed—Issuer Covenants.</i> ”
“Issuer EOD Notice”	has the meaning given in Condition 10(a) (<i>Issuer Events of Default</i>).
“Issuer Event of Default”	has the meaning given in Condition 10(a) (<i>Issuer Events of Default</i>).
“KB Index”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed—Asset Coverage Test.</i> ”
“KB Market Prices”	has the meaning given in “ <i>Summary of the Principal Documents— Establishment Deed—Asset Coverage Test.</i> ”
“KFTC”	means the Korea Financial Telecommunications & Clearings Institute.
“KFTC Notices”	has the meaning given in “ <i>Summary of the Principal Documents— Account Bank Agreements—Account Bank Termination and Replacement.</i> ”

“Korean Account Bank Agreement”	means the account bank agreement entered into on or about the Programme Date, as may be amended or restated from time to time, between the Transaction Account Bank, Hana Bank in its capacity as a Reserve Account Bank, the Issuer, the Trustee and the Asset Monitor and includes any replacement account bank agreement entered into pursuant to the terms of such agreement following an Account Bank Termination Event.
“Korean Business Day”	means a day (other than Saturday and Sunday) on which commercial banks are open for general business (including dealings in foreign exchange and foreign currency deposits) in Korea.
“Korean Covered Bond Laws”	has the meaning given in Condition 3 (<i>Status</i>).
“Korean Privacy Laws”	means the Personal Information Protection Act, the Act on Real Name Financial Transactions and Confidentiality of Korea (No. 5493 of 31 December 1997) of Korea, as amended, and the Use and Protection of Credit Information Act (No. 4866 of 5 January 1995) of Korea, as amended.
“KRW Equivalent”	means, in relation to an amount which is denominated in (i) a currency other than Korean Won, the Korean Won equivalent of such amount ascertained using (x) the relevant Swap Rate relating to such Covered Bond if such amount relates to the interest or principal (including the outstanding principal amount) in respect of a Covered Bond; or (y) where the relevant Swap Agreement has terminated, there is no Swap Agreement or the amount is not related to the interest or principal in respect of a Covered Bond, the Spot Rate, and (ii) Korean Won, the applicable amount in Korean Won.
“Liquid Asset”	means any of the following assets (other than any Swap Collateral) or such other liquid assets as may be provided in the Korean Covered Bond Laws from time to time: (a) cash (excluding Other Assets and Underlying Assets); (b) certificates of deposit with a maturity of no more than 100 days issued by financial companies (as defined in the Korean Covered Bond Act) other than the Issuer; and (c) (x) bonds (other than Korean government bonds) issued by any government rated “AAA” to “AA-” by credit rating agencies; (y) financial instruments issued by any bank or securities company (other than any bank or securities company incorporated in Korea) which is rated “A” by internationally recognised credit rating agencies whose nature and maturity are comparable to those described in (b) above and otherwise satisfies the requirements as set out under the Korean Covered Bond Laws; and (z) deposits and term deposits at either domestic financing companies (as defined in the Korean Covered Bond Act) or foreign financial companies as prescribed by the FSC with a maturity of three months or less, in each case, which the Issuer or (following the service of an Issuer EOD Notice on the Issuer) the Asset Monitor has determined are readily able to be liquidated within three months.
“Liquid Assets Ledger”	means either: (i) the ledger in the Reserve Cash Account of such name maintained by the Issuer pursuant to the Korean Account Bank Agreement, to record the crediting and the debiting of Liquid Assets which are in the form of cash; or (ii) the ledger in the Reserve Securities Account of such name maintained by the Issuer pursuant to

the Korean Account Bank Agreement to record the credits and debits of Liquid Assets which are other than in the form of cash, in each case in accordance with the terms of the Establishment Deed.

“Liquid Assets Value”

means, in respect of any day, the aggregate value of the Eligible Liquid Assets (if any) in the Cover Pool as of such day in KRW, as determined in accordance with the Korean Covered Bond Laws and if applicable, multiplied by the valuation percentage applicable to each such Eligible Liquid Assets being the percentage figures that are necessary to ensure that the Covered Bonds maintain the then current ratings assigned to them by Fitch, provided that the applicable valuation percentage shall in no circumstances be greater than 100%.

“LTV Adjusted Loan Amount”

has the meaning given in “*Summary of the Principal Documents—Establishment Deed—Asset Coverage Test.*”

“LTV Limit”

has the meaning given in “*Summary of the Principal Documents — Establishment Deed—Asset Coverage Test.*”

“Margin”

means, in respect of a Series of Covered Bonds, the Margin (if any) specified in the relevant Pricing Supplement.

“Material Adverse Effect”

means any event or condition which would have a material adverse effect on: (a) the collectability or value of any Underlying Assets, Liquid Assets or Other Assets (whether as a result of a material adverse effect on the business, condition (financial or otherwise), operations, performance or properties of the Issuer); (b) the ability of the Issuer to perform its obligations under the Transaction Documents; or (c) the interests of the Covered Bondholders.

“Maturity Extension Event”

means, in respect of any Series of Covered Bonds to which an Extended Maturity Date is specified as applicable in the Pricing Supplement, the Issuer fails to redeem all of those Covered Bonds in full on the Maturity Date of such Covered Bonds or within 10 calendar days thereafter.

“Maximum Liquid Assets Requirement”

means the requirement, pursuant to Article 5(3) of the Korean Covered Bond Act (or any successor provision), that the KRW Equivalent of the value of the Liquid Assets forming part of the Cover Pool (as determined in accordance with the Korean Covered Bond Laws) shall not exceed 10% of the Cover Pool Value, or such other limit on Liquid Assets as may be specified by the Korean Covered Bond Laws from time to time.

“MCI”

means with respect to a Mortgage Loan, if applicable, mortgage credit insurance issued by SGIC in favour of the Issuer pursuant to the Master MCI Agreement.

“Minimum Required Ratings”

means the required ratings specified below in relation to the Issuer (or such other rating or ratings as published by the relevant Rating Agency in its most recent ratings criteria from time to time to maintain the then current ratings of the Covered Bonds by such Rating Agency): (a) in relation to the satisfaction of the Pre-Maturity Test pursuant to the Establishment Deed: (i) a short-term foreign currency issuer credit rating of at least “A-1” by S&P; and (ii) a short-term issuer default rating of at least “F1+” by Fitch; (b) in relation to the funding of the Reserve Ledger of the Reserve Cash Account with an amount equal to the Reserve Fund Required Amount pursuant to the Establishment Deed: (i) a long-term foreign currency issuer credit

rating of at least “A” by S&P; and (ii) a short-term issuer default rating of at least “F1” by Fitch; or (iii) a long-term issuer default rating of at least “A” by Fitch; and (c) in relation to conducting the Agreed Procedures pursuant to the Asset Monitor Agreement: (i) a long-term foreign currency issuer credit rating of at least “BBB-” by S&P; and (ii) a long-term issuer default rating of at least “BBB-” by Fitch.

“Monthly Distribution Date”

means, following the service of an Issuer EOD Notice, the day falling one Korean Business Day following each Test Date.

“Mortgage”

means, with respect to a Mortgage Loan Agreement or a Mortgage Loan, a Keun-mortgage (as such term is used under Korean law) securing the obligations of the Borrower or any third party under or in relation to such Mortgage Loan Agreement or Mortgage Loan.

“Mortgage Loan”

means, at any time, a transaction constituted by a Mortgage Loan Agreement between the Issuer as lender and the related Borrower(s), together with the related Mortgage and any other Related Assets in respect of such Mortgage Loan Agreement that is registered as part of the Cover Pool.

“Mortgage Loan Agreement”

means, with respect to a Mortgage Loan, the mortgage loan agreement between the Issuer as lender and the related Borrower, which mortgage loan agreement governs the terms and conditions on which, among other things, a loan was advanced to, and is to be repaid by, such Borrower and the payment of interest on such loan, as such mortgage loan agreement may be amended, modified or otherwise changed from time to time and any other agreements entered into in connection with such Mortgage Loan, including, but not limited to, the general terms and conditions for credit transactions, the mortgage creation agreement between the Issuer, as mortgagee, and the relevant Mortgagor, and the mortgage loan application forms.

“Mortgage Loan Assets”

means, at any time, all of the right, title, interest and benefit in, to, under and in respect of Mortgage Loans that are part of the Cover Pool at such time.

“Mortgage Loan Warranties”

means the warranties set out in “*Summary of the Principal Documents—Establishment Deed—Mortgage Loan Warranties.*”

“Mortgaged Property”

means, in relation to any Mortgage, the property which is subject to such Mortgage.

“Mortgagor”

means, in relation to a Mortgage Loan, the mortgagor under the related Mortgage.

“New Mortgage Loan”

means any Mortgage Loan, other than the Mortgage Loans forming part of the Initial Cover Pool, which the Issuer may add to the Cover Pool in accordance with the Korean Covered Bond Laws after the Initial Filing Date.

“Obligors”

means, collectively, all of the Borrowers and the Mortgagors, and each an “Obligor.”

“Other Assets”

has the meaning given in “*Summary of Korean Legislation Regarding Covered Bonds—Cover Pool —Composition of Assets and Eligibility Criteria.*”

“Perfection Notice”	means a perfection notice signed by the Issuer and delivered as soon as practicable and, in any event, within 15 Korean Business Days following the occurrence of a Cause of Disposal Event, by content and delivery proof mail (<i>Naeyong Juengmyung Baedal Juengmyung</i> in Korean) to the Borrowers or to SGIC, in accordance with the Korean Covered Bond Laws and the Korean Civil Code.
“PMT Ongoing Test Series”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed—Pre-Maturity Liquidity.</i> ”
“PMT Shortfall Amount”	means, in respect of all PMT Ongoing Test Series and a PMT Shortfall Valuation Date, the amount by which the portion of the Required Redemption Amount which relates to PMT Ongoing Test Series exceeds the Pre-Maturity Liquidity Assets Value in respect of such PMT Shortfall Valuation Date.
“PMT Shortfall Valuation Date”	means, in respect of all PMT Ongoing Test Series, the Friday of each week, provided that if such day is not a Korean Business Day, such PMT Shortfall Valuation Date shall be the next following Korean Business Day.
“Pre-Maturity Liquidity Assets”	means any of the following assets deposited by the Issuer into the Pre-Maturity Liquidity Ledger of the Reserve Cash Account and/or of the Reserve Securities Account (as applicable): (a) Liquid Assets; and (b) Underlying Assets other than (i) residential mortgage loans or (ii) loans secured by vessels or aircraft, provided that for so long as the Programme is rated by S&P, any such asset shall have a remaining maturity less than or equal to the shortest remaining maturity of a Series of Hard Bullet Covered Bonds maturing during the Pre-Maturity Test Period.
“Pre-Maturity Liquidity Assets Value”	means, at any time, the aggregate value of the Pre-Maturity Liquidity Assets, calculated as the sum of: (a) in respect of the portion of Pre-Maturity Liquidity Assets that are Eligible Liquid Assets, the portion of the Liquid Assets Value relating to such Eligible Liquid Assets; and (b) the lower of the following values in respect of the portion of Pre-Maturity Liquidity Assets that are Underlying Assets: (i) the aggregate value of such Underlying Assets in KRW, as determined in accordance with the Korean Covered Bond Laws, multiplied by the valuation percentage applicable to each such Underlying Asset as specified below: (1) in respect of Underlying Assets that are fixed rate Korean government bonds with a remaining maturity of: (A) less than or equal to one year, 100%; (B) more than one year but less than or equal to two years, 99%; (C) more than two years but less than or equal to three years, 98%; (D) more than three years but less than or equal to five years, 98%; (E) more than five years but less than or equal to seven years, 97%; (F) more than seven years but less than or equal to 10 years, 95%; (G) more than 10 years but less than or equal to 20 years, 92%; (H) more than 20 years, 90%; or (2) in respect of Underlying Assets that are floating rate Korean government bonds of any remaining maturity, 99%, in each case subject to update from time to time in accordance with the most recent applicable rating criteria published by Fitch to maintain the then current ratings of the Covered Bonds; and (ii) in respect of Pre-Maturity Liquidity Assets that are Underlying Assets and are Korean government bonds, the aggregate value of such Underlying Assets in KRW, as determined in accordance with

the Korean Covered Bond Laws, and subject to update from time to time in accordance with the most recent applicable rating criteria published by S&P to maintain the then current ratings of the Covered Bonds; and

- (c) in respect of the portion of Underlying Assets which are not Korean government bonds, zero.

“Pre-Maturity Liquidity Ledger”

means either: (i) the ledger in the Reserve Cash Account of such name maintained by the Issuer pursuant to the Korean Account Bank Agreement to record the credits and debits of Pre-Maturity Liquidity Assets which are in the form of cash; or (ii) the ledger in the Reserve Securities Account of such name maintained by the Issuer pursuant to the Korean Account Bank Agreement to record the credits and debits of Pre-Maturity Liquidity Assets which are other than in the form of cash, in each case available to repay any series of Hard Bullet Covered Bonds on the Maturity Date thereof if the Pre-Maturity Test has been breached.

“Pre-Maturity Test”

means a test in relation to a Series of Hard Bullet Covered Bonds on a Pre-Maturity Test Date to see whether the Issuer ceases to have the applicable Minimum Required Ratings from one or both Rating Agencies.

“Pre-Maturity Test Cure Requirement”

has the meaning given in “*Summary of the Principal Documents — Establishment Deed — Pre-Maturity Liquidity.*”

“Pre-Maturity Test Date”

has the meaning given in “*Summary of the Principal Documents — Establishment Deed — Pre-Maturity Liquidity.*”

“Pre-Maturity Test Period”

has the meaning given in “*Summary of the Principal Documents — Establishment Deed — Pre-Maturity Liquidity.*”

“Preceding Business Day Convention”

has the meaning given in Condition 4(b)(ii) (*Interest on Floating Rate Covered Bonds — Business Day Convention*).

“Priority Payment Right Holders”

means any person with a Priority Payment Right.

“Priority Payment Rights”

means each of the following: (a) any fees, costs or expenses of the Asset Monitor or any Delegate; (b) any fees, costs or expenses (including properly incurred legal fees and expenses) of or any other amounts (including by way of indemnity) owing to the Trustee, any Appointee or any Agent; (c) any fees, costs or expenses (including properly incurred legal fees and expenses) of or any other amounts (including by way of indemnity) owing to: (i) the Transaction Account Bank in relation to the Transaction Account; (ii) the Reserve Account Banks in relation to the Cover Pool Cash Accounts (other than the Transaction Account); and (iii) the Custodian Bank in relation to any Swap Securities Collateral Accounts; (d) any amounts payable to the Covered Bondholders under the Covered Bonds; and (e) any amounts payable to any Swap Provider under any Swap.

“Programme Date”

means 24 December 2020.

“Rating Agencies”

means S&P and Fitch, in each case, for so long as it continues to provide a rating in respect of Covered Bonds, and each a “Rating Agency.”

“Regulatory Requirements”	means any law, rule, code or regulatory requirement of any Governmental Authority.
“Relevant Filing Date”	means, the Initial Filing Date or any Additional Filing Date, as the case may be.
“Replacement Servicer”	has the meaning given in “ <i>Summary of the Principal Documents — Asset Monitor Agreement — The Asset Monitor to Monitor the Cover Pool.</i> ”
“Required Collateralisation Ratio”	means that the Cover Pool Value is equal to or greater than 105% of the KRW Equivalent of the aggregate outstanding principal amount of all Covered Bonds issued under the Programme together with all interest accrued on such Covered Bonds, or such other overcollateralisation requirement as may apply to the Covered Bonds pursuant to the Korean Covered Bond Laws from time to time.
“Required Redemption Amount”	means, in respect of the Pre-Maturity Test, the aggregate principal amount outstanding of all Series of Hard Bullet Covered Bonds which are scheduled to mature within 12 months of the relevant Pre-Maturity Test Date.
“Reserve Account”	means Reserve Cash Account and Reserve Securities Account.
“Reserve Account Bank”	means: (a) in respect of any offshore Swap Cash Collateral Account, Citibank, N.A., Hong Kong Branch, acting as account bank of such Swap Cash Collateral Account; and (b) in all other respects, Hana Bank, acting as account bank of any Cover Pool Cash Account (other than the Transaction Account and any offshore Swap Cash Collateral Accounts), in each case in connection with the Cover Pool and appointed pursuant to the relevant Account Bank Agreement and including any of their successors, assigns and replacements.
“Reserve Account Bank Relevant Entity”	means, in respect of each Reserve Account Bank, such Reserve Account Bank and, where relevant, any financial institution having the Reserve Account Bank Required Ratings who has provided a guarantee of such Reserve Account Bank’s obligations under the relevant Account Bank Agreement (provided that each Rating Agency is notified of such guarantee).
“Reserve Account Bank Required Ratings”	means the required ratings specified below in relation to a Reserve Account Bank (or such other rating or ratings as published by the relevant Rating Agency in its most recent ratings criteria from time to time to maintain the then current ratings of the Covered Bonds by such Rating Agency), except that the relevant ratings shall be those of the guarantor, if the obligations of such Reserve Account Bank are guaranteed by a guarantor: (a) a short-term issuer default rating of at least “F1.” by Fitch or a long-term issuer default rating of at least “A” by Fitch with respect to the Reserve Account Bank or, if the Reserve Account Bank does not maintain a rating by Fitch, the Reserve Account Bank’s head office; and (b) a long-term foreign currency issuer credit rating, or the lower of (i) the long-term foreign currency issuer credit rating of its head office and (ii) the sovereign credit rating of the country in which the Reserve Account Bank is located, of at least “BBB” by S&P.
“Reserve Account Bank Termination Event”	has the meaning given in “ <i>Summary of the Principal Documents — Account Bank Agreements — Account Bank Termination and Replacement.</i> ”

“Reserve Cash Account”	means the account designated as such in the name of the Issuer held with the relevant Reserve Account Bank or such other bank from time to time, as applicable, into which the Reserve Fund, Pre-Maturity Liquidity Assets in the form of cash and Liquid Assets in the form of cash may be deposited in accordance with the terms of the Establishment Deed.
“Reserve Fund”	means the reserve fund that the Issuer will be required to establish in the Reserve Cash Account which will be credited with an aggregate amount equal to the Reserve Fund Required Amount.
“Reserve Fund Required Amount”	means: (a) if, and for so long as, the Issuer’s credit rating is equal to or higher than the then applicable Minimum Required Ratings, nil; or (b) if, and for so long as, the Issuer’s credit rating is below one or more of the Minimum Required Ratings, an amount equal to the KRW Equivalent of the sum of: (i) the aggregate amounts due to the Swap Provider in respect of interest under each Series of Covered Bonds in the immediately following three months, provided that, in determining the Reserve Fund Required Amount, where any amount in respect of a Swap is determined by reference to a floating rate, the applicable rate for the purposes of such determination will be the then current floating rate as at the date on which the amount is calculated; (ii) prior to service of Perfection Notices, the greater of (x) KRW 500,000,000 and (y) the product of KRW 7,500 and the total number of Borrowers as of the date of determination (representing the amount reimbursable for the costs of preparing and delivering Perfection Notices in accordance with the Establishment Deed), and thereafter, zero; and (iii) the aggregate amounts known to be due to the Trustee, any Appointee, the Agents, the Asset Monitor (and Delegates), any Replacement Servicer, the Transaction Account Bank and the Reserve Account Banks, in each case pursuant to the terms of the relevant Transaction Documents or applicable fee letters, in the immediately following three months.
“Reserve Ledger”	means the ledger in the Reserve Cash Account of such name maintained by the Issuer pursuant to the Korean Account Bank Agreement, to record the crediting and the debiting of the Reserve Fund in accordance with the terms of the Establishment Deed.
“Reserve Securities Account”	means the account designated as such in the name of the Issuer held with the Securities Depository, Euroclear or such other custodian or securities depository from time to time, as applicable, into which Liquid Assets or Pre-Maturity Liquidity Assets other than cash may be deposited in accordance with the terms of the Establishment Deed.
“Securities Depository”	means the Korea Securities Depository.
“Series”	means a series of Covered Bonds comprising one or more Tranches, whether or not issued on the same date, that (except in respect of the first payment of interest and their issue price) have identical terms on issue and are expressed to have the same series number.
“Series Required Redemption Amount”	means, in respect of the Pre-Maturity Test and a Series of Hard Bullet Covered Bonds which are scheduled to mature during the relevant Pre-Maturity Test Period, the aggregate principal amount outstanding of such Series.
“Series Required Redemption Amount Cut-off Date”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed — Pre-Maturity Liquidity.</i> ”

“Series Reserved Matter”	means, in respect of a Series, those matters to which special quorum provisions of the Trust Deed apply.
“Servicer Replacement Event”	means the Issuer ceases to have a long-term senior unsecured foreign currency rating of at least “B” by S&P or its long-term issuer default rating is rated below “BBB-” by Fitch or such other rating or ratings as published by the relevant Rating Agency in its most recent ratings criteria from time to time to maintain the then current ratings of the Covered Bonds by such Rating Agency.
“Set-Off Amount”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed — Asset Coverage Test.</i> ”
“Set-Off Rating Event”	has the meaning given in “ <i>Summary of the Principal Documents — Establishment Deed — Asset Coverage Test.</i> ”
“SGIC”	means Seoul Guarantee Insurance Company.
“Spot Rate”	means a spot rate for the sale of KRW against the purchase of the currency of the relevant amount other than KRW in the foreign exchange market in Seoul quoted by any leading bank selected by: (i) the Issuer; (ii) following service of an Issuer EOD Notice, the Asset Monitor; or (iii) in respect of a determination to be made by the Trustee, the Trustee, in each case on the relevant day of calculation.
“Subscription Agreement”	means an agreement between two or more Relevant Dealers and the Issuer made pursuant to the Dealer Agreement.
“Substitution Resolution”	means the substitution of any entity for the Issuer (or any previous substitute) as principal debtor under the Trust Deed and the other Transaction Documents to which the Issuer is a party, provided that such substitution is permitted under the Korean Covered Bond Laws.
“Swap”	means any cross-currency swap transaction governed by any Swap Agreement.
“Swap Agreement”	means each agreement between the Issuer, a Swap Provider and the Trustee governing a Swap entered into with such Swap Provider in the form of an ISDA Master Agreement, including a schedule and confirmation and any credit support annex entered into pursuant thereto, as amended from time to time.
“Swap Cash Collateral Account”	means an account in the name of the Issuer held with the relevant Reserve Account Bank or such other bank (which will be subject to the Reserve Account Bank Required Ratings as if such other bank is a Reserve Account Bank) as may be approved by the Asset Monitor from time to time, as applicable, into which Swap Collateral in the form of cash in respect of any Swap may be deposited.
“Swap Collateral”	means, at any time, any asset (including, without limitation, cash and/or securities) which is paid or transferred by a Swap Provider to the Issuer as collateral to secure the performance by such Swap Provider of its obligations under the relevant Swap Agreement, together with any income or distributions received in respect of such asset and any equivalent of such asset into which such asset is transformed.
“Swap Collateral Available Amounts”	means, at any time, the amount of Swap Collateral which, under the terms of the relevant Swap Agreement, may be applied at that time in satisfaction of the relevant Swap Provider’s obligations to the Issuer.

“Swap Collateral Excluded Amounts”	means: (a) the amount of Swap Collateral which may not be applied under the terms of the relevant Swap Agreement at that time in satisfaction of the relevant Swap Provider’s obligations to the Issuer, including Swap Collateral which is to be returned to the relevant Swap Provider from time to time in accordance with the terms of the Swap Agreements and ultimately upon termination of the relevant Swap Agreement after paying for amount due in respect of the replacement swap pursuant to clause 11.4.2 (<i>Swap Payments</i>) of the Establishment Deed; and (b) any cash benefit relating to any Tax Credits received or obtained in respect of a Swap (the amount of such cash benefit as determined in accordance with the relevant Swap Agreement), which is to be returned to the relevant Swap Provider from time to time in accordance with the terms of the Swap Agreements.
“Swap Payment Account”	means an onshore account in the relevant currency of the Covered Bonds to be opened in the name of the Issuer upon the occurrence of a Convertibility Notice Event and held with the relevant Reserve Account Bank or such other bank (which will be subject to the Reserve Account Bank Required Ratings as if such other bank is a Reserve Account Bank) as may be approved by the Asset Monitor from time to time, as applicable, into which Swap Payment Amounts may be paid.
“Swap Payment Amount”	means, at any time, any KRW Equivalent which is transferred by a Swap Provider to the account of the Issuing and Paying Agent (or upon the occurrence of a Convertibility Notice Event, the Swap Payment Account opened by the Issuer).
“Swap Payment Date”	means, in respect of a Series of Covered Bonds, any date on which the Issuer is obligated to pay under the relevant Swap.
“Swap Provider”	means each provider (or any successors, assigns and replacements) of a Swap under a Swap Agreement.
“Swap Provider Default”	means the occurrence of an Event of Default or Termination Event (other than a Termination Event that is an “Illegality” or “Tax Event”), each as defined in the relevant Swap Agreement, where the relevant Swap Provider is the Defaulting Party or the sole Affected Party (each as defined in the relevant Swap Agreement), as applicable.
“Swap Rate”	means the foreign exchange conversion rate of the currency of the relevant Series of Covered Bonds and KRW specified as the ‘Covered Bond Swap Rate’ in the confirmation relating to the relevant Swap.
“Swap Securities Collateral Account”	means an account in the name of the Issuer held with the Custodian Bank or such other bank from time to time, as applicable, into which Swap Collateral in the form of securities in respect of any Swap may be deposited.
“Swap Termination Payment”	means, in relation to a Swap Agreement, an amount equal to the amount of any termination payment due and payable to the relevant Swap Provider as a result of a termination of such Swap Agreement in accordance with its terms.
“S&P Liquid Asset Required Ratings”	means, for so long as the Programme is rated by S&P, that: (a) in respect of assets that mature in 60 days or less, a short-term foreign currency issuer credit rating of A-1 or higher by S&P; (b) in respect of assets that mature greater than 60 days and not more than 365 days,

a short-term foreign currency issuer credit rating of at least A-1+ or a long-term foreign currency issuer credit rating of AA- or higher by S&P; or (c) in respect of assets that mature greater than 365 days, a long-term foreign currency issuer credit rating that is equivalent to the then current ratings of the Covered Bonds by S&P, or, in each case, such other rating or ratings as published by S&P in its most recent rating criteria from time to time to maintain the then current ratings of the Covered Bonds by S&P.

“T2”	has the meaning given in Condition 4(h) (<i>Definitions</i>).
“Talons”	has the meaning given in the Conditions.
“Tax Credit”	means a credit against any Tax or any relief or remission for Tax (or its repayment).
“Taxes”	means all present and future taxes, levies, imposts, duties (including stamp and transaction duties), fees, deductions, withholdings or charges of any nature whatsoever and wheresoever imposed, except if imposed on, or calculated having regard to the net income of the relevant party, but including, without limitation, income tax, company tax, corporation tax, goods and services tax or value added tax or other tax in respect of added value and any franchise, transfer, sales, gross receipts, use, business, occupation, excise, personal property, real property or other tax imposed by any national, local or supranational taxing or fiscal authority or agency, together with any penalties, fines or interest, and “Tax” and “Taxation” shall be construed accordingly.
“Test Date”	means: (a) in respect of a Calculation Period and the Asset Coverage Test, the tenth Korean Business Day of the month immediately following such Calculation Period; and (b) in respect of a Calculation Period and the Amortisation Test, the tenth Korean Business Day of the month immediately following such Calculation Period.
“Tranche”	means, in relation to a Series, those Covered Bonds of that Series that are issued on the same date at the same issue price and in respect of which the first payment of interest is identical.
“Transaction Account”	means the account designated as such in the name of the Issuer held with the Transaction Account Bank and maintained subject to the terms of the Korean Account Bank Agreement or such other account as may for the time being be in place with the prior consent of the Asset Monitor and designated as such.
“Transaction Account Bank”	means KEB Hana Bank or any successors, assigns and replacements acting as account bank of the Transaction Account in connection with the Cover Pool and appointed pursuant to the Korean Account Bank Agreement.
“Transaction Account Bank Relevant Entity”	means the Transaction Account Bank and any financial institution that has provided a guarantee of the Transaction Account Bank’s obligations under the Korean Account Bank Agreement (provided that each Rating Agency is notified in respect of such guarantee).
“Transaction Account Bank Required Ratings”	means the required ratings specified below in relation to the Transaction Account Bank (or such other rating or ratings as published by the relevant Rating Agency in its most recent ratings criteria from time to time to maintain the then current ratings of the Covered Bonds by such Rating Agency), except that the relevant

ratings shall be those of the guarantor, if the obligations of such Transaction Account Bank are guaranteed by a guarantor: (a) (x) if the Issuer is the Transaction Account Bank, a short-term issuer default rating of at least “F2” by Fitch or a long-term issuer default rating of at least “BBB” by Fitch; or (y) if the Issuer is not the Transaction Account Bank, a short-term issuer default rating of at least “F1” by Fitch or a long-term issuer default rating of at least “A” by Fitch with respect to the Transaction Account Bank or, if the Transaction Account Bank does not maintain a rating by Fitch, the Transaction Account Bank’s head office; and (b) a long-term foreign currency issuer credit rating, or the lower of (i) a long-term foreign currency issuer credit rating of its head office and (ii) a long-term sovereign credit rating of the country in which the Transaction Account Bank is located, of at least “BBB” by S&P.

“Transaction Account Bank Termination Event”

has the meaning given in “*Summary of the Principal Documents — Account Bank Agreements — Account Bank Termination and Replacement.*”

“Transaction Documents”

means each of the following: (a) each Account Bank Agreement; (b) the Agency Agreement; (c) the Asset Monitor Agreement; (d) each Swap Agreement; (e) the Establishment Deed; (f) the Master Definitions Agreement; (g) each Pricing Supplement (as applicable in the case of each issue of listed Covered Bonds subscribed pursuant to a subscription agreement); (h) the Dealer Agreement; (i) each Subscription Agreement (as applicable in the case of each issue of listed Covered Bonds subscribed pursuant to a subscription agreement); (j) the Trust Deed (including the Conditions); (k) each document, agreement or deed ancillary or supplemental to any of the documents specified in paragraphs (a) to (j) (inclusive) above of this definition; and (l) any other agreement or document from time to time designated as such by the Issuer and the Trustee.

“Transaction Party”

means any person who is a party to a Transaction Document and “Transaction Parties” means some or all of them.

“Trust Deed”

has the meaning given in the Conditions.

“Trustee”

has the meaning given in the Conditions.

“Underlying Asset”

means any asset that complies with sub-paragraph 1 of Article 5(1) of the Korean Covered Bond Act (or any successor provision).

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Independent Accountant's Review Report

(English Translation of Independent Accountant's Review Report
Originally Issued in Korean on November 13, 2024)

To the Shareholders and Board of Directors of
Hana Bank Co., Ltd. and its subsidiaries:

Report on the Interim Consolidated Financial Statements

We have reviewed the accompanying interim consolidated financial statements of Hana Bank Co., Ltd. (the "Bank") and its subsidiaries (collectively, the "Group"), which comprise the interim consolidated statement of financial position as of September 30, 2024, and the related interim consolidated statements of profit or loss and other comprehensive income for the three-month and nine-month periods ended September 30, 2024 and 2023, interim consolidated statements of changes in equity and interim consolidated statements of cash flows, all expressed in Korean won, for the nine-month periods ended September 30, 2024 and 2023, and a summary of material accounting policies and other explanatory information.

Management's Responsibility for the Interim Consolidated Financial Statements

Management is responsible for the preparation and presentation of these interim consolidated financial statements in accordance with Korean International Financial Reporting Standards ("K-IFRS") 1034, Interim Financial Reporting, and for such internal control as management determines is necessary to enable the preparation of the interim consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Independent Accountant's Responsibility

Our responsibility is to express a conclusion on these interim consolidated financial statements based on our review.

We conducted our review in accordance with the review standards for interim financial statements in the Republic of Korea. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Korean Standards on Auditing ("KSA") and, consequently, does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Review Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the accompanying interim consolidated financial statements are not prepared, in all material respects, in accordance with K-IFRS 1034.

Other matter

We have audited the consolidated statement of financial position of the Group as of December 31, 2023, and the related consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended (not presented herein) in accordance with KSA, and our report dated February 29, 2024, expressed an unqualified opinion thereon. The accompanying consolidated statement of financial position as of December 31, 2023, presented for comparative purposes is not different, in all material respects, from the above audited consolidated statement of financial position.

Deloitte Idnjin LLC

November 13, 2024

This review report is effective as of November 13, 2024, the independent accountant's review report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the date of the independent accountant's review report to the time this report is used. Such events and circumstances could significantly affect the accompanying interim consolidated financial statements and may result in modifications to this review report.

HANA BANK CO., LTD. and its subsidiaries

Interim Consolidated Financial Statements

as of September 30, 2024, and December 31, 2023, and for
the three-month and nine-month periods ended September
30, 2024 and 2023

(With the Independent Accountant's Review Report)

Interim Consolidated Statements of Financial Position

As of September 30, 2024, and December 31, 2023

Hana Bank Co., Ltd. and its subsidiaries

(KRW in millions)

Accounts	September 30, 2024 (unaudited)	December 31, 2023
Assets		
1. Cash and due from banks (Notes 4, 5, 6, 8, 10 and 50)	37,007,913	30,564,279
2. Financial assets at FVTPL (Notes 4, 5, 6, 7, 8, 11, 14 and 16)	21,083,325	17,514,876
3. Derivative assets used for hedging (Notes 4, 5, 6, 7, 8 and 16)	36,338	1,723
4. Financial assets at FVOCI (Notes 4, 5, 6, 7, 8, 12 and 14)	31,417,857	36,894,111
5. Securities at AC (Notes 4, 5, 6, 7, 8, 13 and 14)	35,077,709	36,337,949
6. Loans (Notes 4, 5, 6, 7, 8 and 15)	363,074,437	347,246,910
7. Investments in associates and a joint venture (Note 17)	3,428,628	3,280,152
8. Property, plant and equipment (Notes 9 and 18)	2,604,791	2,415,210
9. Investment properties (Notes 9 and 19)	672,774	675,523
10. Intangible assets (Notes 9 and 20)	527,925	428,880
11. Current tax assets	59,115	37,770
12. Deferred tax assets (Note 47)	140,190	133,742
13. Other assets (Notes 4, 5, 6, 7, 8 and 22)	24,652,386	18,634,009
14. Merchant banking account assets (Notes 4, 5, 6, 8 and 22)	4,107,786	4,637,824
15. Non-current assets held for sale (Note 21)	37,257	40,478
Total assets	523,928,431	498,843,436
Liabilities		
1. Deposits (Notes 4, 5, 6, 8 and 23)	380,525,552	369,749,453
2. Financial liabilities at FVTPL (Notes 4, 5, 6, 7, 8, 16 and 24)	6,392,993	6,729,210
3. Derivative liabilities used for hedging (Notes 4, 5, 6, 7, 8 and 16)	285,351	390,979
4. Borrowings (Notes 4, 5, 6, 7, 8, 25 and 50)	23,048,605	22,033,914
5. Debentures (Notes 4, 5, 6, 8, 26 and 50)	29,171,117	26,542,179
6. Net defined benefit liabilities (Note 27)	228,466	173,575
7. Provisions (Note 28)	608,715	760,573
8. Current tax liabilities	309,963	165,398
9. Deferred tax liabilities (Note 47)	598,539	253,200
10. Other liabilities (Notes 4, 5, 6, 7, 8, 29 and 50)	45,055,409	35,805,942
11. Merchant banking account liabilities (Notes 4, 5, 6, 8 and 29)	4,270,195	4,154,697
Total liabilities	490,494,905	466,759,120
Equity		
Equity attributable to owners of the parent	33,112,077	31,782,740
1. Capital stock (Note 30)	5,359,578	5,359,578
2. Capital surplus (Note 30)	6,161,303	6,161,303
3. Hybrid equity securities (Note 30)	353,738	353,738
4. Capital adjustments (Note 30)	(37,652)	(37,921)
5. Retained earnings (Note 32)		

Accounts	September 30, 2024 (unaudited)		December 31, 2023	
(Regulatory reserve for bad debts in the amount of: September 30, 2024: ₩2,557,402 million December 31, 2023: ₩2,690,108 million Required provision for (reversal of) bad debts in the amount of: September 30, 2024: ₩226,374 million December 31, 2023: ₩(112,706) million Planned provision for (reversal of) bad debts in the amount of: September 30, 2024: ₩226,374 million December 31, 2023: ₩(112,706) million) (Note 33)	22,008,414		21,050,087	
6. Accumulated other comprehensive loss (Note 31)	(733,304)		(1,104,045)	
Non-controlling interests		321,449		301,576
Total equity		33,433,526		32,084,316
Total liabilities and equity		523,928,431		498,843,436

See notes to interim consolidated financial statements.

Interim Consolidated Statements of Profit or Loss and Other Comprehensive Income

For the three-month and nine-month periods ended September 30, 2024 and 2023

Hana Bank Co., Ltd. and its subsidiaries

(KRW in millions)

Accounts	September 30, 2024 (unaudited)			September 30, 2023 (unaudited)		
	For the three-month period ended		For the nine-month period ended	For the three-month period ended		For the nine-month period ended
I. Net interest income (Notes 9, 34 and 35)		1,900,235	5,782,610		1,991,613	5,964,772
1. Interest income	5,080,395		15,305,614	5,048,811		14,601,537
Interest income on financial instruments at FVOCI and AC	5,011,148		15,123,259	4,998,557		14,478,374
Interest income on financial instruments at FVTPL	69,247		182,355	50,254		123,163
2. Interest expenses	(3,180,160)		(9,523,004)	(3,057,198)		(8,636,765)
II. Net fee and commission income (Notes 9, 34 and 36)		190,161	575,212		158,115	518,674
1. Fees and commission income	258,056		778,118	222,771		705,767
2. Fees and commission expenses	(67,895)		(202,906)	(64,656)		(187,093)
III. Net gain on financial instruments at FVTPL (Notes 9, 16, 34 and 37)		289,119	424,737		3,757	312,242
IV. Net gain (loss) on derivative financial instruments used for hedging (Notes 9, 34 and 38)		35,570	815		(11,833)	(15,384)
V. Net gain on financial instruments at FVOCI (Notes 9, 34 and 39)		51,428	149,885		1,584	82,980
VI. Net gain on financial instruments at AC (Notes 9, 13, 34 and 40)		-	2		1	2
VII. Provision for allowance for credit loss (Notes 9, 34 and 41)		(79,763)	(219,526)		(176,251)	(536,756)
VIII. General and administrative expenses (Notes 9, 34 and 42)		(869,935)	(2,538,151)		(812,270)	(2,502,091)
IX. Other operating income (Notes 9, 34 and 43)		1,873,045	5,102,973		1,786,749	5,825,828
X. Other operating expenses (Notes 9, 34 and 44)		(2,137,610)	(5,523,752)		(1,810,781)	(5,986,724)
XI. Operating income		1,252,250	3,754,805		1,130,684	3,663,543
XII. Net non-operating income (expenses)		14,802	(94,294)		24,637	(13,574)
1. Non-operating income (Notes 9, 17 and 45)	60,797		205,008	59,003		145,950
Gain from using equity method	44,880		159,323	53,927		120,017
Other income	15,917		45,685	5,076		25,933
2. Non-operating expenses (Notes 9, 17 and 46)	(45,995)		(299,302)	(34,366)		(159,524)
Loss from using equity method	(1,504)		(8,520)	1,112		(9,466)
Other expenses	(44,491)		(290,782)	(35,478)		(150,058)
XIII. Income before income tax expenses		1,267,052	3,660,511		1,155,321	3,649,969
XIV. Income tax expenses (Notes 9 and 47)		(234,016)	(870,540)		(225,454)	(875,461)
XV. Net income for the period		1,033,036	2,789,971		929,867	2,774,508
1. Owners of the parent (Adjusted income after regulatory reserve for bad debt in the amount of September 30, 2024: ₩2,554,467 million September 30, 2023: ₩2,907,407 million) (Note 33)		1,029,950	2,780,841		927,415	2,766,424
2. Non-controlling interests		3,086	9,130		2,452	8,084
XVI. Other comprehensive income (Note 31)		106,216	378,840		(12,216)	458,191
Items that may be reclassified subsequently to profit or loss:	93,484		372,849	9,149		383,486
1. Gain (loss) on valuation of debt securities at FVOCI (Note 50)	196,189		257,488	(2,623)		208,396
2. Gain (loss) on translation of foreign operations (Note 50)	(101,699)		95,472	28,978		176,700
3. Changes in equity on investments in associates	(36,737)		43,155	(1,359)		49,405
4. Gain (loss) on valuation of net investment hedges of foreign operations	35,731		(23,266)	(15,847)		(51,015)
Items that will not be reclassified subsequently to profit or loss:	12,732		5,991	(21,365)		74,705
1. Remeasurement of defined benefit plans	(1,752)		(7,133)	(3,801)		(11,439)
2. Gain (loss) on valuation of equity securities at FVOCI	14,386		13,773	(17,302)		85,945
3. Changes in equity on investments in associates (Note 50)	98		(649)	(262)		199
XVII. Total comprehensive income for the period		1,139,252	3,168,811		917,651	3,232,699
1. Owners of the parent	1,126,159		3,146,554	919,533		3,205,243
2. Non-controlling interests	13,093		22,257	(1,882)		27,456
XVIII. Earnings per share (Note 48) (Korean won)						

Accounts	September 30, 2024 (unaudited)				September 30, 2023 (unaudited)			
	For the three-month period ended		For the nine-month period ended		For the three-month period ended		For the nine-month period ended	
1. Basic earnings per share		961		2,588		862		2,567
2. Diluted earnings per share		961		2,588		862		2,567

See notes to interim consolidated financial statements.

Interim Consolidated Statements of Changes in Equity

For the nine-month periods ended September 30, 2024 and 2023

Hana Bank Co., Ltd. and its subsidiaries

(KRW in millions)

Accounts	Capital stock	Capital surplus	Hybrid equity securities	Capital adjustments	Retained earnings	Accumulated other comprehensive income	Equity attributable to equity holder of the parent	Non-controlling interests	Total
I. As of January 1, 2023	5,359,578	6,159,820	533,475	(37,686)	19,236,315	(1,565,533)	29,685,969	279,399	29,965,368
Dividends	–	–	–	–	(880,000)	–	(880,000)	–	(880,000)
Interim Dividends	–	–	–	–	(810,000)	–	(810,000)	–	(810,000)
Dividends on hybrid equity securities	–	–	–	–	(14,284)	–	(14,284)	–	(14,284)
Stock option	–	–	–	(14)	–	–	(14)	(3)	(17)
Reclassification of valuation gain or loss on equity securities at FVOCI upon derecognition	–	–	–	–	116,671	(116,671)	–	–	–
Paid-in capital increases of subsidiaries	–	1,483	–	–	–	–	1,483	2,476	3,959
Other capital adjustment	–	–	–	42	–	–	42	–	42
Subtotal	5,359,578	6,161,303	533,475	(37,658)	17,648,702	(1,682,204)	27,983,196	281,872	28,265,068
Net income for the period	–	–	–	–	2,766,424	–	2,766,424	8,084	2,774,508
Gain (loss) on valuation of debt securities at FVOCI	–	–	–	–	–	208,943	208,943	(547)	208,396
Gain on valuation of equity securities at FVOCI	–	–	–	–	–	85,945	85,945	–	85,945
Gain on translation of foreign operations	–	–	–	–	–	156,922	156,922	19,778	176,700
Loss on valuation of net investment hedges of foreign operations	–	–	–	–	–	(51,015)	(51,015)	–	(51,015)
Remeasurement of defined benefit plans	–	–	–	–	–	(11,580)	(11,580)	141	(11,439)
Changes in equity on investments in associates	–	–	–	–	–	49,604	49,604	–	49,604
Total comprehensive income for the period	–	–	–	–	2,766,424	438,819	3,205,243	27,456	3,232,699
II. As of September 30, 2023 (Unaudited)	5,359,578	6,161,303	533,475	(37,658)	20,415,126	(1,243,385)	31,188,439	309,328	31,497,767

Accounts	Capital stock	Capital surplus	Hybrid equity securities	Capital adjustments	Retained earnings	Accumulated other comprehensive income	Equity attributable to equity holder of the parent	Non-controlling interests	Total
I. As of January 1, 2024	5,359,578	6,161,303	353,738	(37,921)	21,050,087	(1,104,045)	31,782,740	301,576	32,084,316
Dividends	–	–	–	–	(1,000,000)	–	(1,000,000)	(2,384)	(1,002,384)
Interim dividends	–	–	–	–	(810,000)	–	(810,000)	–	(810,000)
Dividends on hybrid equity securities	–	–	–	–	(7,223)	–	(7,223)	–	(7,223)
Reclassification of valuation gain or loss on equity securities at FVOCI upon derecognition	–	–	–	–	(5,028)	5,028	–	–	–
Other capital adjustment	–	–	–	269	(263)	–	6	–	6
Subtotal	5,359,578	6,161,303	353,738	(37,652)	19,227,573	(1,099,017)	29,965,523	299,192	30,264,715
Net income for the period	–	–	–	–	2,780,841	–	2,780,841	9,130	2,789,971
Gain on valuation of debt securities at FVOCI	–	–	–	–	–	256,930	256,930	558	257,488
Gain on valuation of equity securities at FVOCI	–	–	–	–	–	13,773	13,773	–	13,773
Gain on translation of foreign operations	–	–	–	–	–	82,842	82,842	12,630	95,472
Loss on valuation of net investment hedges of foreign operations	–	–	–	–	–	(23,266)	(23,266)	–	(23,266)
Remeasurement of defined benefit plans	–	–	–	–	–	(7,072)	(7,072)	(61)	(7,133)
Changes in equity on investments in associates	–	–	–	–	–	42,506	42,506	–	42,506
Total comprehensive income for the period	–	–	–	–	2,780,841	365,713	3,146,554	22,257	3,168,811
II. As of September 30, 2024 (Unaudited)	5,359,578	6,161,303	353,738	(37,652)	22,008,414	(733,304)	33,112,077	321,449	33,433,526

See notes to interim consolidated financial statements.

Interim Consolidated Statements of Cash Flows

For the nine-month periods ended September 30, 2024 and 2023

Hana Bank Co., Ltd. and its subsidiaries

(₩W in millions)

Accounts	September 30, 2024 (Unaudited)		September 30, 2023 (Unaudited)	
	For the nine-month period ended		For the nine-month period ended	
I. Net cash flows provided by (used in) operating activities		313,672		(8,468,155)
1. Net income for the period	2,789,971		2,774,508	
2. Adjustments to income and expenses:	(4,923,478)		(5,100,495)	
Income tax expenses	870,540		875,461	
Interest expenses	9,523,004		8,636,765	
Interest income	(15,305,614)		(14,601,537)	
Dividend income	(11,408)		(11,184)	
3. Adjustments to non-cash items:	(20,844)		511,583	
Gain on valuation of financial instruments at FVTPL	(671,259)		(307,655)	
Gain on disposal of financial instruments at FVTPL	(31,944)		(25,011)	
Loss (gain) on valuation of derivative instruments used for hedging	(5,013)		22,629	
Gain on disposal of financial instruments at FVOCI	(149,885)		(82,980)	
Provision for (reversal of) loss on credit risk of financial instruments at FVOCI	(1,517)		26	
Gain on disposal of financial instruments at amortized cost	(2)		(2)	
Allowance for (reversal of) financial instruments at AC	1,513		(24,224)	
Net allowance for loans and other assets	219,530		560,954	
Gain on disposal of investments in associates and a joint venture	(778)		(632)	
Gain on equity method	(150,803)		(110,551)	
Depreciation and amortization	421,083		388,217	
Gain on disposal of property and equipment and intangible assets	(13,557)		(580)	
Impairment loss on property and equipment and intangible assets	11		5	
Loss (gain) on termination of right-of-use assets	(3,549)		158	
Gain on disposal of right-of-use assets	(1,181)		–	
Retirement benefits	107,586		93,310	
Share-based payment expense	12,720		5,889	
Net provisions transferred in	126,131		29,168	
Net loss (gain) on foreign currency translation	160,500		(23,708)	
Others	(40,430)		(13,430)	
4. Changes in operating assets and liabilities:	(3,469,005)		(13,269,937)	
Financial assets at FVTPL (items held for trading)	(1,414,230)		(1,642,348)	
Loans	(11,428,400)		(5,864,521)	
Net defined benefit assets	–		(84,623)	
Other assets	(5,399,215)		(17,457,608)	
Merchant banking account assets	530,843		257,750	
Deposits	7,233,817		4,033,285	
Financial liabilities at FVTPL	(288,412)		(466,273)	
Net defined benefit liabilities	(62,776)		(1,250)	
Provisions	(278,435)		(56,048)	
Other liabilities	7,522,305		7,156,110	
Merchant banking account liabilities	115,498		855,589	
5. Cash provided by operating activities:	15,393,760		14,383,102	
Interest received	15,379,746		14,356,167	

Accounts	September 30, 2024 (Unaudited)		September 30, 2023 (Unaudited)	
	For the nine-month period ended		For the nine-month period ended	
Dividend received	14,014		26,935	
6. Cash used in operating activities:	(9,456,732)		(7,766,916)	
Interest paid	(8,945,079)		(6,625,580)	
Income tax paid	(511,653)		(1,141,336)	
II. Net cash flows provided by (used in) investing activities		5,856,873		(3,809,378)
1. Increase in financial assets at FVTPL (other than items held for trading)	(6,718,447)		(5,984,530)	
2. Decrease in financial assets at FVTPL (other than items held for trading)	5,215,466		3,428,393	
3. Increase in financial assets at FVOCI	(20,406,069)		(15,070,259)	
4. Decrease in financial assets at FVOCI	26,584,552		13,413,919	
5. Increase in financial assets at AC	(1,892,446)		(864,568)	
6. Decrease in financial assets at AC	3,289,280		1,522,521	
7. Increase in investments in associates and a joint venture	(28,762)		(37,624)	
8. Decrease in investments in associates and a joint venture	87,378		9,494	
9. Acquisition of property and equipment	(130,979)		(153,794)	
10. Disposal of property and equipment	6,944		673	
11. Disposal of investment properties	22,004		2,550	
12. Acquisition of intangible assets	(218,547)		(111,553)	
13. Disposal of intangible assets	–		289	
14. Disposal of non-current assets held for sale	7,281		14,368	
15. Others	39,218		20,743	
III. Net cash flows provided by (used in) financing activities		727,362		(2,104,162)
1. Net cash flows of derivative instruments used for hedging	(22,560)		13,433	
2. Net increase in borrowings	290,701		1,242,437	
3. Issuance of debentures	11,048,832		10,845,718	
4. Redemption of debentures	(8,622,495)		(12,354,985)	
5. Dividends paid	(1,812,384)		(1,690,000)	
6. Dividends on hybrid equity securities	(7,223)		(14,284)	
7. Redemption of lease liabilities	(147,509)		(150,690)	
8. Change in equity ownership of subsidiaries	–		4,209	
IV. Net increase (decrease) in cash and cash equivalents (I+II+III)		6,897,907		(14,381,695)
V. Cash and cash equivalents at the beginning of the period		28,282,303		38,500,426
VI. Effect of changes in exchange rate on cash and cash equivalents		(403,737)		425,182
VII. Cash and cash equivalents at the end of the period (Note 50)		34,776,473		24,543,913

See notes to interim consolidated financial statements.

HANA BANK CO., LTD. and its subsidiaries
Notes to Interim Consolidated Financial Statements

As of September 30, 2024, and December 31, 2023,
and for the three-month and nine-month periods ended September 30, 2024 and 2023

1. GENERAL INFORMATION:

General information on Hana Bank Co., Ltd., previously Korea Exchange Bank (the "Bank" or the "Parent company") and its subsidiaries (collectively, the "Group") in accordance with Korean International Financial Reporting Standard ("K-IFRS") 1110, *Consolidated Financial Statements*, is as follows:

1-1 Summary of the Parent company (the Bank)

The Bank was established on January 30, 1967, as a government-controlled bank, to engage in foreign exchange and trade finance business under the *Korea Exchange Bank Act* enacted on July 28, 1966.

On December 30, 1989, the *Korea Exchange Bank Act* was repealed, and the Bank was reorganized as a stock company under the Commercial Act of the Republic of Korea. On April 4, 1994, the Bank was listed on the Korea Exchange (previously, Korea Stock Exchange). On February 28, 2004, the Bank merged its subsidiary, Korea Exchange Bank Credit Service Co., Ltd. On August 31, 2014, the Bank spun off its credit card division.

On February 9, 2012, Hana Financial Group Inc. ("HFG") had control over the Bank by acquiring 57.27% equity interest in the Bank and later on April 5, 2013, the Bank became a wholly owned subsidiary of HFG after HFG acquired the remaining interest in the Bank through an all-inclusive exchange of the shares.

The Bank changed to its current name on September 1, 2015, following the merger of Korea Exchange Bank and Hana Bank.

The Bank provides commercial banking service under the Banking Act of the Republic of Korea, trust banking service under the Financial Investment Services and Capital Markets Act, merchant banking service due to the merger with the Korea International Merchant Bank, foreign exchange business and other related businesses. As of September 30, 2024, the Bank's headquarters is located in Seoul, with 601 domestic branches (including 67 satellite offices) and 25 overseas branches (including one satellite office and five offices).

The Bank is authorized to issue 2,000 million shares (par value amount: ₩5,000) of common stock, and as of September 30, 2024, after a number of capital increases and decreases, stock splits and conversion of preferred shares to common shares, the Bank has 1,071,915,717 shares of common stock issued and outstanding with the total capital stock amounting to ₩5,359,578 million.

1-2 Scope and overview of consolidation

The Group's ownership percentages in its consolidated subsidiaries as of September 30, 2024, are summarized as follows (ownership in %):

Investee	Country	Major business	Share ratio (%)	Reporting date
Subsidiaries of Hana Bank				
Hana Bank (China) Co., Ltd.	China	Financial business	100.00	2024.09.30
KEB Hana Bank Canada	Canada	Financial business	100.00	2024.09.30
KEB Hana Bank (D) AG	Germany	Financial business	100.00	2024.09.30
PT Bank KEB Hana	Indonesia	Financial business	69.01	2024.09.30
Banco KEB Hana Do Brasil S.A.	Brazil	Financial business	100.00	2024.09.30
KEB Hana NY Financial Corp.	USA	Financial business	100.00	2024.09.30
KEB Hana LA Financial Corp.	USA	Financial business	100.00	2024.09.30
KEB Hana Global Finance Limited	Hong Kong	Financial business	100.00	2024.09.30
KEB Hana Bank Russia	Russia	Financial business	99.99	2024.09.30
Hana Bancorp, Inc.	USA	Financial business	96.77	2024.09.30
KEB Hana Bank Mexico	Mexico	Financial business	99.99	2024.09.30
GLN international Co., Ltd.	Korea	Other financial business	82.24	2024.09.30
Hana Tech Value-Up Investment Fund (*)	Korea	Other financial business	98.04	2024.09.30
Hana One Q Startup Investment Fund (*)	Korea	Other financial business	90.91	2024.09.30
Hana Super Gap Win-Win Fund of funds (*)	Korea	Other financial business	95.00	2024.09.30
Hana Tech Value Up Fund No.2	Korea	Asset management company	95.00	2024.09.30

Investee	Country	Major business	Share ratio (%)	Reporting date
Hana Alternative Investment HFG Real Estate Financing General Private Equity Investment Trust No.1 (*)	Korea	Asset management company	93.22	2024.09.30
Hana UBS Power PEF Invest Trust 21 [Bond] (*)	Korea	Asset management company	100.00	2024.09.30
Hanhwa Trust PEF Invest 16 [Bond] (*)	Korea	Asset management company	100.00	2024.09.30
Kyobo AXA Tomorrow PEF Invest Trust K4-1 [Bond] (*)	Korea	Asset management company	100.00	2024.09.30
Sevenstar Co., Ltd. (*)	Korea	Other financial business	—	2024.09.30
Marine Solution Co., Ltd. (*)	Korea	Other financial business	—	2024.09.30
Joong-ang star Co., Ltd. (*)	Korea	Other financial business	—	2024.09.30
H-Plus 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
Hana CK 1st Co., Ltd. (*)	Korea	Other financial business	—	2024.09.30
Hana H in the holdings 2nd LLC (*)	Korea	Other financial business	—	2024.09.30
HANA DL First Co., Ltd. (*)	Korea	Other financial business	—	2024.09.30
HANA TERMINUS First Co., Ltd. (*)	Korea	Other financial business	—	2024.09.30
HANA I.S 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
HANA I.G 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
GRAND ONEQ 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
DONG DAEGU TERMINAL 2nd, LLC (*)	Korea	Other financial business	—	2024.09.30
KENDALL NO.9 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
BYK3rd Co., Ltd. (*)	Korea	Other financial business	—	2024.09.30
Jinwoori Hana 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
H-ECHO 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
HANA STARLORD 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
CLEAN WORLD 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
H-HANA 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
HANA ANANTI 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
One Q B777F 66872 Co., Ltd. (*)	Cayman Islands	Other financial business	—	2024.09.30
NAE CHON HANA 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
DRAGON HANA 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
HANA BAEKSA LOGISTICS 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
HANA S ONE Q 1st, LLC (*)	Korea	Other financial business	—	2024.09.30
HOME PLUS HANA CONNECT, LLC (*)	Korea	Other financial business	—	2024.09.30
Antarctica 1st, Ltd. (*)	Korea	Other financial business	—	2024.09.30
Enerbility Hana 1st, Ltd. (*)	Korea	Other financial business	—	2024.09.30
Hana Plant 1st, Ltd. (*)	Korea	Other financial business	—	2024.09.30
GS Hana 1st, Ltd. (*)	Korea	Other financial business	—	2024.09.30
Cha Cha Hana 1st, Ltd. (*)	Korea	Other financial business	—	2024.09.30
Neostar 6th, Ltd. (*)	Korea	Other financial business	—	2024.09.30
Antarctica Hana 2nd, Ltd. (*)	Korea	Other financial business	—	2024.09.30
HC One Q 2nd, LLC (*)	Korea	Other financial business	—	2024.09.30
H Advanced 1st, Ltd. (*)	Korea	Other financial business	—	2024.09.30
Hana Display 2nd, LLC (*)	Korea	Other financial business	—	2024.09.30

Investee	Country	Major business	Share ratio (%)	Reporting date
Doosan Hana 1st, LLC (*)	Korea	Other financial business	–	2024.09.30
H Seven 1st, LLC (*)	Korea	Other financial business	–	2024.09.30
Hana Privia 1st, LLC (*)	Korea	Other financial business	–	2024.09.30
Hana Plant 2nd, Ltd. (*)	Korea	Other financial business	–	2024.09.30
Hana Plant 3rd, Ltd. (*)	Korea	Other financial business	–	2024.09.30
Hana Supreme 1st, LLC (*)	Korea	Other financial business	–	2024.09.30
Hana H in the holdings 3rd LLC (*)	Korea	Other financial business	–	2024.09.30
Net One Q 2nd, LLC (*)	Korea	Other financial business	–	2024.09.30
Exteer Hana 1st, LLC (*)	Korea	Other financial business	–	2024.09.30
Hana Spark 1st, LLC (*)	Korea	Other financial business	–	2024.09.30
H Seven 2nd, LLC (*)	Korea	Other financial business	–	2024.09.30
Antarctica Hana 3rd, Ltd. (*)	Korea	Other financial business	–	2024.09.30
Daehan Hana 1st, Ltd. (*)	Korea	Other financial business	–	2024.09.30
GS Hana 2nd, Ltd. (*)	Korea	Other financial business	–	2024.09.30
Happy World Hana 1st, Ltd. (*)	Korea	Other financial business	–	2024.09.30
HE One Q 2nd, LLC (*)	Korea	Other financial business	–	2024.09.30
Antarctica Hana 4th, Ltd (*)	Korea	Other financial business	–	2024.09.30
Enerbility Hana 2nd, Ltd (*)	Korea	Other financial business	–	2024.09.30
H Seven 3rd, LLC (*)	Korea	Other financial business	–	2024.09.30
Kumgang Hana No.1 Co., Ltd (*)	Korea	Other financial business	–	2024.09.30
GS Hana 3rd, Ltd. (*)	Korea	Other financial business	–	2024.09.30
SK Office One Q 2nd, LLC (*)	Korea	Other financial business	–	2024.09.30
Cleanenergy One Q 2nd, LLC (*)	Korea	Other financial business	–	2024.09.30
LS Hana 1st, Ltd. (*)	Korea	Other financial business	–	2024.09.30
Movie Hana 1st, LLC (*)	Korea	Other financial business	–	2024.09.30
Haradu Animal Specialty 1st, LLC (*)	Korea	Other financial business	–	2024.09.30
Trust accounts guaranteeing the repayment of principal (*)	Korea	Trust account	–	2024.09.30
Subsidiaries of Hana Bancorp, Inc.				
KEB Hana Bank USA	USA	Bank	100.00	2024.09.30

(*) Although the entity is a structured special-purpose company ("SPC"), the Group recognized the entity as a subsidiary considering its exposure to variable returns and ability to direct its activities.

Interim Consolidated financial statements as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)
Hana Bank (China) Co., Ltd.	10,516,602	9,343,487	1,173,115	341,410	10,376	52,739
KEB Hana Bank Canada	2,008,798	1,723,574	285,224	93,060	13,408	13,707
KEB Hana Bank (D) AG	1,717,887	1,483,160	234,727	77,150	10,568	17,814
PT Bank KEB Hana	4,199,738	3,203,711	996,027	254,289	33,032	75,072
Banco KEB Hana Do Brasil S.A.	259,068	212,808	46,260	30,850	2,426	(1,875)
KEB Hana NY Financial Corp.	617,914	537,443	80,471	30,595	2,892	4,598
KEB Hana LA Financial Corp.	858,834	746,423	112,411	44,312	8,657	10,826
KEB Hana Global Finance Limited	312,725	202,536	110,189	17,471	5,199	7,569
KEB Hana Bank Russia	1,059,158	940,747	118,411	71,511	27,913	23,135
Hana Bancorp, Inc.(*)	736,745	600,970	135,775	25,944	2,705	6,360
KEB Hana Bank Mexico	356,513	241,991	114,522	23,663	3,209	(12,011)
GLN International Co., Ltd.	55,243	8,514	46,729	1,478	(6,724)	(6,724)
Trust accounts guaranteeing the repayment of principal	1,490,790	1,449,822	40,968	64,274	4,667	4,667

(*) The amounts are consolidated amounts of the intermediate parent.

December 31, 2023:

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)
Hana Bank (China) Co., Ltd.	10,150,671	9,030,295	1,120,376	531,511	4,893	7,677
KEB Hana Bank Canada	1,804,745	1,533,228	271,517	113,485	15,766	26,177
KEB Hana Bank (Do) AG	1,212,141	995,228	216,913	83,193	9,904	20,112
PT Bank KEB Hana	3,977,538	3,048,892	928,646	335,991	38,099	66,626
Banco KEB Hana Do Brasil S.A.	285,110	236,975	48,135	38,601	3,355	7,786
KEB Hana NY Financial Corp.	474,249	398,377	75,872	25,382	2,296	3,529
KEB Hana LA Financial Corp.	808,015	706,431	101,584	50,314	8,798	10,278
KEB Hana Global Finance Limited	251,134	148,513	102,621	19,636	6,279	8,071
KEB Hana Bank Russia	837,148	741,873	95,275	63,203	15,476	(2,039)
Hana Bancorp, Inc.(*)	554,578	425,162	129,416	26,967	4,561	6,772
KEB Hana Bank Mexico	365,050	238,516	126,534	29,448	3,429	21,054
GLN International Co., Ltd.	60,616	7,163	53,453	964	(6,661)	(6,661)
Trust accounts guaranteeing the repayment of principal	1,564,740	1,528,439	36,301	107,112	14,925	14,925

(*) The amounts are consolidated amounts of the intermediate parent.

The following entities are excluded from the Group's scope of consolidation as of September 30, 2024, and December 31, 2023, since the Group aimed at investing in majority-owned companies or securities and has no control over the power of investee-related activities, exposure to variable profits and the ability to use power to influence the Group's variable profits.

September 30, 2024:

Company name	Country	Major business	Share ratio (%)
Hana – KMC Unicorn Fund of Funds	Korea	Investment	90.91
All Together Korea Fund 5	Korea	Investment	100.00
Hana Corporate Growth Fund	Korea	Investment	90.00
Defense Technology Innovation Private Investment Trust	Korea	Investment	98.33
Hana Prop-Tech Fund No.1	Korea	Investment	88.23
Hana Alternative Infra Special Investment Private Trust No.1	Korea	Investment	71.43
Hana Alternative General Private Real Estate Investment Trust No.180	Korea	Investment	53.19

December 31, 2023:

Company name	Country	Major business	Share ratio (%)
Hana – KMC Unicorn Fund of Funds	Korea	Investment	90.91
All Together Korea Fund 5	Korea	Investment	100.00
Hana Corporate Growth Fund	Korea	Investment	90.00
Defense Technology Innovation Private Investment Trust	Korea	Investment	98.33
Hana Prop-Tech Fund No.1	Korea	Investment	88.24
Hana Alternative Infra Special Investment Private Trust No.1	Korea	Investment	71.43
Hana Alternative General Private Real Estate Investment Trust No.180	Korea	Investment	53.19

Subsidiaries included in and excluded from the consolidation scope for the nine-month period ended September 30, 2024, are as follows:

Company	Reasons
Included in scope of consolidation:	
Subsidiaries of Hana Bank	
H One Q 2nd, LLC	Newly invested
Antarctica Hana 4th, Ltd.	Newly invested
Enerbility Hana 2nd, Ltd.	Newly invested
H Seven 3rd, LLC	Newly invested
Hana Super Gap Win-Win Fund of funds	Newly invested
Hana Alternative Investment HFG Real Estate Financing General Private Equity Investment Trust No.1	Newly invested
Kumgang Hana No.1 Co., Ltd.	Newly invested
GS Hana 3rd, LLC	Newly invested
Hana Tech Value Up Fund No.2	Newly invested
SK Office One Q 2nd, LLC	Newly invested
Cleanenergy One Q 2nd, LLC	Newly invested
LS Hana 1st, Ltd.	Newly invested
Movie Hana 1st, LLC	Newly invested
Hanadu Animal Specialty 1st, LLC	Newly invested
Excluded from the scope of consolidation:	
Subsidiaries of Hana Bank	
Ocean Betts The First Co., Ltd.	Excluded due to the disposal (end of credit offering)
H One Q 1st, LLC	Excluded due to the disposal (end of credit offering)
HHOTELONEQ1st, LLC	Excluded due to the disposal (end of credit offering)
Mini Hana 1st, LLC	Excluded due to the disposal (end of credit offering)
Hana H in the Holdings 1st L.L.C	Excluded due to the disposal (end of credit offering)
T A 1st, Ltd	Excluded due to the disposal (end of credit offering)
BBQ One Q 1st, LLC	Excluded due to the disposal (end of credit offering)
SK Office One Q 1st, LLC	Excluded due to the disposal (end of credit offering)
Cleanenergy One Q 1st, LLC	Excluded due to the disposal (end of credit offering)
Galaxia One Q 1st, Ltd.	Excluded due to the disposal (end of credit offering)

1-2-1 Hana Bank (China) Co., Ltd. (Hana Bank China)

Hana Bank (China) Co., Ltd. (Hana Bank China) was incorporated in Beijing to engage in commercial banking, foreign currency exchanges and other related operations in China on December 14, 2007. The Bank contributed the assets and liabilities of the branches in Shanghai and Shenyang, and its interests in the International Bank of Qingdao, which is the subsidiary of the Bank, to the Hana Bank China in the form of equity contributions on December 24, 2007. Hana Bank China, one of the subsidiaries in China, acquired and merged with KEB China, one of the affiliates in the HFG, on December 15, 2014. (Before the merge, equity interests in Hana Bank China were 59.7% for Hana Bank and 40.3% for Korea Exchange Bank). Its paid-in capital is 3.35 billion yuan as of September 30, 2024 (share ratio : 100%).

1-2-2 KEB Hana Bank Canada

KEB Hana Bank Canada was established in Toronto, Canada, on October 6, 1981, to provide financial services to Korean companies and residents in Toronto and the surrounding area. Its paid-in capital is 83,400 thousand Canadian dollars as of September 30, 2024 (share ratio : 100%).

1-2-3 KEB Hana Bank (D) AG (KEBDAG)

KEBDAG was established in Frankfurt, Germany, on December 29, 1992, to provide financial services to Korean companies and residents in Frankfurt and the surrounding area. Paid-in capital is increased by issuing new shares by KEBDAG in 2023. Its paid-in capital is 73,008 thousand euro as of September 30, 2024 (share ratio : 100%).

1-2-4 PT Bank KEB Hana

PT Bank KEB Hana was established in Jakarta, Indonesia, on November 5, 1990, to provide financial services to Korean companies and residents in Jakarta.

In accordance with the regulations of the Bank Indonesia, two or more local banks with the same ultimate parent company are prohibited to operate as an independent entity in Indonesia. Accordingly, PT Bank KEB Indonesia, a subsidiary of the Bank, and PT Bank Hana, a subsidiary of Hana Bank, have completed a merger process on February 20, 2014, and changed the name to PT Bank KEB Hana. PT Bank KEB Hana was incorporated into a subsidiary of KEB on February 28, 2014, since KEB owned the major shares of PT Bank KEB Hana after the acquisition. Paid-in capital is increased by issuing new shares by PT Bank KEB Hana in 2019. Its paid-in capital is 3,160,093 million rupiah as of September 30, 2024 (share ratio : 69.01%).

1-2-5 Banco KEB Hana Do Brasil S.A. (KEBB)

KEBB was incorporated on May 21, 1999, to provide investment finance services for foreign clients, advisory services for domestic companies that seek to invest overseas, finance arrangement and security investment trust services. Its paid-in capital is 126,351 thousand reals as of September 30, 2024 (share ratio : 100%).

1-2-6 KEB Hana NY Financial Corp. (NYFinCo)

NYFinCo was established in New York, USA, on April 8, 2004, to provide financial services to Korean companies and residents in New York and the surrounding area. Its paid-in capital is 1 dollar as of September 30, 2024 (share ratio : 100%).

1-2-7 KEB Hana LA Financial Corp. (LAFinCo)

LAFinCo was established in Los Angeles, USA, on April 8, 2004, to provide financial services to Korean companies and residents in Los Angeles and the surrounding area. Its paid-in capital is 2 dollars as of September 30, 2024 (share ratio :100%).

1-2-8 KEB Hana Global Finance Limited (KHGF)

KHGF was established on July 2, 2009, in Hong Kong to provide investment finance services for foreign clients, advisory services for domestic companies that seek to invest overseas, finance arrangement and security investment trust services. Its paid-in capital is 50,000 thousand dollars as of September 30, 2024 (share ratio : 100%).

1-2-9 KEB Hana Bank Russia

KEB launched a Moscow representative office in 2008 to provide financial information and consulting services for Korean and local companies in Russia. KEB Hana Bank Russia was established on August 15, 2014, after obtaining permission to operate corporation from Russian supervisory authorities in order to expand the business area. Its paid-in capital is 4.78 billion RUB as of September 30, 2024 (share ratio : 99.99%).

1-2-10 Hana Bancorp, Inc.

Hana Bancorp, Inc. (previously, BNB Financial Services Corporation) was incorporated on April 8, 1988, to engage in the bank and related businesses. HFG acquired ownership of BNB Financial Services Corporation and incorporated Hana Bancorp, Inc. as its subsidiary on August 30, 2013, and changed the name to Hana Bancorp, Inc. The Bank purchased the securities from HFG on March 28, 2016. Its paid-in capital is 48,596 thousand dollars as of September 30, 2024 (share ratio : 96.77%).

1-2-11 KEB Hana Bank Mexico

KEB Hana Bank Mexico was established in Mexico City on November 3, 2017, to engage in provision of financial services to Korean companies and local corporations and obtained approval for the commencement of business from the local supervisory agency on January 31, 2019. Its paid-in capital is 1,666,828 thousand Mexican pesos as of September 30, 2024 (share ratio : 99.99%).

1-2-12 GLN International Co., Ltd.

GLN International Co., Ltd. was established in Korea on July 7, 2021, and primarily engages in the electronic finance business (global payment brokerage, etc.). Paid-in capital is increased by issuing new shares by GLN International Co., Ltd. in 2023. Its paid-in capital is ₩60.8 billion as of September 30, 2024 (share ratio : 82.24%).

1-3 Structured entities

1-3-1 Consolidated structured entities

1-3-1-1 Hana UBS Power PEF Invest Trust 21 and a set of three other private equity investment vehicles

In accordance with K-IFRS 1110, three other private equity investment vehicles and Hana UBS Power PEF Invest Trust 21 were included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-2 Sevenstar Co., Ltd. and 61 other special-purpose entities

In accordance with K-IFRS 1110, 61 SPCs and Sevenstar Co., Ltd. were included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-3 Trust accounts

In accordance with K-IFRS 1110, trust accounts are included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-4 Hana Tech Value-Up Investment Fund and three other funds

In accordance with K-IFRS 1110, Hana Tech Value-Up Investment Fund and three other funds are included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-5 Contractual commitments to consolidated structured entities

The consolidated structured company for the securitization of assets is established for the securitization of loans. The Group is involved in the acquisition of subordinated bonds issued by the consolidated structured company or provide credit for the asset-backed commercial paper ("ABCP") and others, and is exposed to the risk of not being able to recover the acquisition amounts based on the investment performance. Characteristics and intentions of contractual commitments offered by the Group to the consolidated structured entities are as follows:

Company name	The characteristics and purposes	Intention
Development trust and other trusts	The Group offers principal conservation commitment to trust accounts. The Group is required to conserve the deficit amount in case the trust account stands below the principal as a result of the operation.	Credit risk mitigation on financial management of trust account
H-Plus 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from H-Plus 1st, LLC.	Operating activities
Hana CK 1st Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩56,400 million) from Hana CK 1st Co., Ltd.	Operating activities
Hana H in the holdings 2nd LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Hana H in the holdings 2nd LLC.	Operating activities
HANA DL First Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HANA DL First Co., Ltd.	Operating activities

Company name	The characteristics and purposes	Intention
HANA TERMINUS First Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HANA TERMINUS First Co., Ltd.	Operating activities
HANA I.G 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from HANA I.G 1st, LLC.	Operating activities
GRAND ONEQ 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩40,000 million) from GRAND ONEQ 1st, LLC.	Operating activities
DONG DAEGU TERMINAL 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from DONG DAEGU TERMINAL 2nd, LLC.	Operating activities
KENDALL NO.9 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,300 million) from KENDALL NO.9 1st, LLC.	Operating activities
BYK 3rd Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩4,400 million) from BYK 3rd Co., Ltd.	Operating activities
Jinwoori One Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from Jinwoori One Q 1st, LLC.	Operating activities
H-ECHO 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩80,000 million) from H-ECHO 1st, LLC.	Operating activities
HANA STARLORD 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from HANA STARLORD 1st, LLC.	Operating activities
CLEAN WORLD 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩7,500 million) from CLEAN WORLD 1st, LLC.	Operating activities
H-HANA 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩90,000 million) from H-HANA 1st, LLC.	Operating activities
HANA ANANTI 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HANA ANANTI 1st, LLC.	Operating activities
NAE CHON HANA 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩49,600 million) from NAE CHON HANA 1st, LLC.	Operating activities
DRAGON HANA 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from DRAGON HANA 1st, LLC.	Operating activities
HANA BAEKSA LOGISTICS 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩34,600 million) from HANA BAEKSA LOGISTICS 1st, LLC.	Operating activities
HANA S ONE Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from HANA S ONE Q 1st, LLC.	Operating activities
HOME PLUS HANA CONNECT LLC	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from HOME PLUS HANA CONNECT, LLC.	Operating activities
Antarctica 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from Antarctica 1st, Ltd.	Operating activities
Enerbility Hana 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Enerbility Hana 1st, Ltd.	Operating activities
Hana Plant 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩62,500 million) from Hana Plant 1st, Ltd.	Operating activities
GS Hana 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from Gs Hana 1st, Ltd.	Operating activities
Cha Cha Hana 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩18,800 million) from Cha Cha Hana 1st, Ltd.	Operating activities
Neostar 6th Ltd.	The Group partially purchased ABCP (purchase commitment of ₩4,100 million) from Neostar 6th, Ltd.	Operating activities
Antarctica 2nd, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from Antarctica 2nd, Ltd.	Operating activities
HC ONEQ 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from HCOEQ 2nd, LLC.	Operating activities
H Advanced 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from H Advanced 1st, LLC.	Operating activities
Hana Display 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩200,000 million) from Hana Display 2nd, LLC.	Operating activities
	The Group partially purchased ABCP (purchase commitment of ₩50,000 million)	

Company name	The characteristics and purposes	Intention
Doosan Hana 1st, LLC	from Doosan Hana 1st, LLC.	Operating activities
H Seven 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from H Seven 1st, LLC.	Operating activities
Hana Privia 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩10,000 million) from Hana Privia 1st, LLC.	Operating activities
Hana Plant 2nd, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩37,500 million) from Hana Plant 2nd, Ltd.	Operating activities
Hana Supreme 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from Hana Supreme 1st, Ltd.	Operating activities
Hana H in the holdings 3rd LLC	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from Hana H in the holdings 3rd LLC.	Operating activities
Exteer Hana 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Exteer Hana 1st, LLC	Operating activities
Hana Spark 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from Hana Spark 1st, LLC	Operating activities
H Seven 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from H Seven 2nd, LLC	Operating activities
Antarctica 3rd, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Antarctica 3rd, Ltd.	Operating activities
GS Hana 2nd, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from GS Hana 2nd, Ltd.	Operating activities
Happy World Hana 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩120,000 million) from Happy World Hana 1st, Ltd.	Operating activities
HE One Q 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from HE One Q 2nd, LLC	Operating activities
Enerbility Hana 2nd, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from Enerbility Hana 2nd, Ltd.	Operating activities
H Seven 3rd, LLC	The Group partially purchased ABCP (purchase commitment of ₩10,000 million) from H Seven 3rd, LLC.	Operating activities
Kungang Hana No.1 Co., Ltd.	The Group is obligated to purchase additional equity securities (equity commitment of ₩100,000 million) from Hana Super Gap Win-Win Fund of Funds.	Operating activities
SK Office One Q 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩45,000 million) from SK Office One Q 2nd, LLC	Operating activities
Cleanenergy One Q 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from SK Office One Q 2nd, LLC	Operating activities
LS Hana 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from SK Office One Q 2nd, LLC	Operating activities
Movie Hana 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from SK Office One Q 2nd, LLC	Operating activities
Hanadu Animal Specialty 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from SK Office One Q 2nd, LLC	Operating activities
Hana Super Gap Win-Win Fund of Funds	The Group is obligated to purchase additional equity securities (equity commitment of ₩76,000 million) from Hana Super Gap Win-Win Fund of Funds.	Operating activities
Hana Tech Value Up Fund No.2	The Group is obligated to purchase additional equity securities (equity commitment of ₩66,500 million) from Hana Alternative Investment HFG Real Estate Financing General Private Equity Investment Trust No.1.	Operating activities
Hana Alternative Investment HFG Real Estate Financing General Private Equity Investment Trust No.1	The Group is obligated to purchase additional equity securities (equity commitment of ₩50,000 million) from Hana Alternative Investment HFG Real Estate Financing General Private Equity Investment Trust No.1.	Operating activities

1-3-2 Unconsolidated structured entities

1-3-2-1 The nature of the Group's interests in unconsolidated structured entities Details of the nature of the Group's interests in unconsolidated structured entities as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Type	Characteristics and purposes	Major method of financing arrangement	Total assets	
			September 30, 2024	December 31, 2023
SPC securitization	Securitization of backed asset	Issuing asset-backed loan/ABCP and others	10,203,710	6,173,286
Real estate finance	Operation for real estate (including social overhead capital) development	Investment and borrowing	226,932,402	130,483,848
Shipping finance and primary market finance	Building or purchasing ships and non-performing loan purchase, and mergers and acquisitions	Investment and borrowing	287,924,889	165,015,514
Investment fund and trust	Managing investment property	Issuing beneficiary certificates	209,469,133	207,687,103

1-3-2-2 Maximum exposure to loss from interests in unconsolidated structured entities (KRW in millions):

September 30, 2024:

Classification	SPC	Real estate finance	Shipping finance and primary market finance	Investment fund and trust
Assets				
Loans (A)	972,144	4,624,791	2,705,393	1,313,317
Securities (B)	1	76,074	–	14,093,419
Derivatives (C)	4,314	1,402	32,487	–
Others (D)	3,009	25,373	16,557	–
Liabilities				
Derivative liabilities	12,484	113,103	1,012	–
Provisions	3,176	4,264	1,428	399
Others	24	5	154	–
Carrying amount of net asset	963,784	4,610,268	2,751,843	15,406,337
Maximum exposure to loss	1,545,484	5,539,144	3,301,913	18,116,794
Financial assets (A+B+C+D)	979,468	4,727,640	2,754,437	15,406,736
Credit and other commitment	566,016	811,504	547,476	2,710,058

December 31, 2023:

Classification	SPC	Real estate finance	Shipping finance and primary market finance	Investment fund and trust
Assets				
Loans (A)	455,569	4,819,535	2,345,541	1,234,369
Securities (B)	1	81,125	–	13,285,051
Derivatives (C)	7,437	919	20,717	–
Others (D)	1,503	44,227	21,479	–
Liabilities				
Derivative liabilities	20,451	92,227	5,921	–
Provisions	2,516	3,789	1,346	214
Others	46	3	94	–
Carrying amount of net asset	441,497	4,849,787	2,380,376	14,519,206
Maximum exposure to loss	967,920	5,771,137	2,843,725	16,888,885
Financial assets (A+B+C+D)	464,510	4,945,806	2,387,737	14,519,420
Credit and other commitment	503,410	825,331	455,988	2,369,465

2. BASIS OF PREPARATION AND MATERIAL ACCOUNTING POLICIES:

2-1 Basis of preparation

The Group prepares interim consolidated financial statements in accordance with K-IFRS 1034 enacted by the *Act on External Audit of Stock Companies*. The accompanying interim consolidated financial statements have been translated into English from Korean interim consolidated financial statements prepared in Korean. In the event of any differences in interpreting the interim consolidated financial statements or the independent auditor's report thereon, the Korean version, which is used for regulatory reporting purposes, shall prevail.

The interim consolidated financial statements do not contain all the information and notes required to be entered in the annual financial statements and, therefore, should also be referred to information in the annual financial statements for the year ended December 31, 2023.

2-2 Changes in material accounting policies

The material accounting policies used for the preparation of the interim consolidated financial statements are the same as those adopted in preparing annual financial statements as of and for the year ended December 31, 2023, except for the adoption of new standards and interpretations effective as of January 1, 2024.

Changes in accounting policies in accordance with the adoption of new standards and interpretations for the current reporting period are as follows:

2-2-1 K-IFRS 1001, *Presentation of Financial Statements – Classification of Liabilities as Current or Non-Current (Amendments of 2020)*

The amendments clarify that the classification of liabilities as current or non-current is based on the entity's right to defer settlement of liabilities at the end of the reporting period, not by the likelihood that the entity will exercise the right or not. The amendments highlight that the right exists if the entity complies with the borrowing agreement at the end of the reporting period and the definition of settlement is transferring cash, equity instruments, other assets or services to the counterparty.

2-2-2 K-IFRS 1001, *Presentation of Financial Statements – Non-Current Liabilities with Covenants (Amendments of 2023)*

Only the borrowing agreement to be complied within the end of the reporting period ("Agreement"), affects the entity's right to defer settlement of liabilities at least 12 months after the reporting period.

Even if compliance of Agreement is assessed only after the reporting period, Agreement defines the existence of rights at the end of the reporting period. Agreement to be complied with only after the reporting period does not affect the right to defer settlement. However, if the deferral right depends on Agreement complied within 12 months after the reporting period, the entity should disclose information about the risk that the liability may be settled within 12 months. Disclosure includes information about Agreement (including the nature and the time for the entity to comply with Agreement), the carrying amount of the liability and the facts and circumstances indicating that the arrangement may be difficult to comply with.

2-2-3 K-IFRS 1007, *Statement of Cash Flows* and K-IFRS 1107, *Financial Instruments: Disclosures– Supplier Finance Arrangements (Amendments)*

These amendments add a requirement to disclose information about financing arrangements to enable financial statement users of K-IFRS 1007 to assess the impact of financing arrangements on the entity's liabilities and cash flows.

Additionally, K-IFRS 1107 has been amended to include financing arrangements as an example of requirements to disclose information related to exposure to liquidity concentration. This aims to ensure that users can evaluate the impact of financing arrangements on the entity's financial position accurately.

The term 'supplier finance arrangements' is not defined. Instead, the amendments describe the characteristics of an arrangement for which an entity would be required to provide the information.

To meet the disclosure objective, an entity will be required to disclose in aggregate for its supplier finance arrangements:

- The terms and conditions of the arrangements
- The carrying amount and associated line items presented in the entity's statements of financial position of the liabilities that are part of the arrangements
- The carrying amount and associated line items for which the suppliers have already received payment from the finance providers
- Ranges of payment due dates for both those financial liabilities that are part of a supplier finance arrangement and comparable trade payables that are not part of a supplier finance arrangement
- Types and effects of non-cash changes in the carrying amount of financial liabilities that are part of a supplier finance arrangement
- Liquidity risk information

2-2-4 K-IFRS 1116 *Leases– Lease Liability in a Sale and Leaseback (Amendments)*

The amendments add subsequent measurement requirements for sale and leaseback transactions that satisfy the requirements in K-IFRS 1115 to be accounted for as a sale. The amendments require the seller-lessee to determine 'lease payments' or 'revised lease payments' such that the seller-lessee does not recognize a gain or loss that relates to the right of use retained by the seller-lessee after the commencement date.

2-2-5 K-IFRS 1001 Presentation of Financial Statements– Disclosure of Virtual Assets (Amendments of 2023)

The amendments add additional disclosure requirements required by other standards for transactions related to virtual assets, setting out disclosure requirement for each case of 1) holding virtual assets, 2) holding virtual assets on behalf of customer and 3) issuing virtual assets.

When holding a virtual asset, disclosure on the general information about virtual assets, the accounting policy applied and each virtual assets's acquisition method, cost and the fair value at the end of the reporting period are required. Also, when issuing a virtual asset, the entity's obligations and status of fulfilment of the obligation related to the issued virtual asset, the timing and amount of the recognized revenue of the sold virtual asset, the number of virtual assets held after issuance and important contract details shall be disclosed.

2-2-6 K-IFRS 1012, Income Taxes – International Tax Reform – Pillar Two Model Rules (Amendments)

The Bank applies K-IFRS 1012 to income taxes arising from tax law enacted to implement the Pillar Two Model Rules published by the Organization for Economic Co-Operation and Development, including tax law that implements qualified domestic minimum top-up taxes described in those rules. The amendments introduce a temporary exception to the accounting requirements for deferred taxes in K-IFRS 1012 so that an entity would neither recognize nor disclose information about deferred tax assets and liabilities related to Pillar Two income taxes. Following the amendments, the Bank is required to disclose that it has applied the exception and to disclose separately its current tax expense (income) related to Pillar Two income taxes.

The Group applies a temporary exception to the accounting requirements for deferred taxes related to Pillar Two Model Rules and as the law is enforced from January 1, 2024.

Standard issued, but not yet effective, is as follows:

2-2-7 K-IFRS 1021, *The Effects of Changes in Foreign Exchange Rate* and K-IFRS 1101, *First-Time Adoption of International Financial Reporting Standards (Amendments) – Lack of Exchangeability*

The amendments define when a currency is considered to be exchangeable into another currency and specify how to assess whether a currency is exchangeable and how to determine a spot exchange rate if a currency lacks exchangeability. The amendments clarify the disclosure requirement of information when a currency lacks exchangeability.

When a currency is not exchangeable into another currency at the measurement date, the spot exchange rate is estimated at the measurement date as which an observable exchange rate without adjustment or another estimation technique can be used.

The amendments apply to annual reporting periods beginning on or after January 1, 2025. Earlier application is permitted.

There is no material impact of the amendment on the Group's consolidated financial statements.

2-3 Scope and principles of consolidation

Significant methods of accounting for consolidation when preparing interim consolidated financial statements are as follows:

2-3-1 Subsidiaries

The Bank has the ability to determine the financial and operating policies of subsidiaries. Generally, the Bank classified the entity as subsidiary in case the Bank has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has

the ability to use its power to affect the Group's returns from its involvement with the investee. Subsidiaries are fully consolidated from the date on which the control is transferred to the Group and excluded from the subsidiaries at the point when the Group loses the control.

2-3-2 Offset of the investment accounts of the Group and the corresponding equity accounts

The investment accounts of the Group and the corresponding equity accounts of the subsidiaries are eliminated in consolidation.

2-3-3 Process of difference between the costs of investment

The consolidated financial statements reflect on only the share of the consolidated subsidiaries post application of purchase accounting method. When applying the acquisition method, if the transfer consideration, the amount of non-controlling interest in the acquiree and the total fair value of the parent's previous holdings exceed the fair value of the subsidiary's asset liabilities, the difference is recognized as goodwill and is considered for impairment at the end of each reporting period.

Changes in the parent's ownership interest in a subsidiary that does not lose control after the date of acquisition of control are treated as capital transactions.

2-3-4 Elimination of intercompany transactions and the unrealized gain or loss, etc.

All significant intercompany transactions and the account balances among the consolidated companies are eliminated on consolidation. Unrealized gains or losses included in loans and borrowings arising from transactions between consolidated companies are eliminated on consolidation. The related accounts receivable and payable are also eliminated on consolidation.

2-3-5 Investments in associates and a joint venture

Investments in entities over which the Group has control or significant influence are accounted for using the equity method. Under the equity method of accounting, the Group's initial investment in an investee is recorded at acquisition cost. Subsequently, a share of changes in equity (the Group's share of amount of the changes in associates' net assets) is adjusted to reflect in the carrying value. The share of changes in equity is accounted differently per sources. If the change in net asset has occurred due to net income or loss, it is accounted for as gain or loss on equity method. If it has occurred due to unappropriated retained earnings carried over from prior years, it is accounted for as changes in retained earnings under equity method. The change in net assets due to changes in equity, except those mentioned above, is accounted for as equity adjustments in equity method or negative equity changes in equity method.

If the carrying amount of investments in associates is equal to or under '0,' it suspends equity method and carries the investments value at '0.' If the Group has investment assets, such as preferred shares and long-term bonds of associates, it continues recognizing its share of further losses to the extent of the carrying amount of such asset's value '0.' The Group resumes the application of the equity method if the Group's share of income or change in equity of an investee exceeds the Group's share of losses accumulated during the period of suspension of the equity method of accounting.

At the date of acquisition, the excess of the cost of the investment over the Group's share of the net fair value of the investee's identifiable assets and liabilities is accounted for as goodwill or negative goodwill. The goodwill is not amortized, and if there is any indication that investment shares in associates and joint ventures, including those, have been impaired, it is being considered against the recoverable value (greater of net fair value and value in use). In addition, the difference between the fair value and the carrying amount of the identifiable assets and liabilities of the investee at the time of stock acquisition is amortized or reversed according to the equity method of the investee.

The Group's share in the investee's unrealized profits and losses resulting from transactions between the Group and its investee is eliminated to the extent of the interest in the investee.

2-3-6 Special reserve on trust accounts

A special reserve provided under the arrangement of guaranteed fixed rate of return and guaranteed repayment of the principal is included under the retained earnings in the interim consolidated financial statements.

2-3-7 Non-controlling interests

Subsidiaries' equity that is not included in the Group's share is accounted as non-controlling interests. In case, subsidiaries' non-controlling interests are below '0,' negative non-controlling interests are presented as deduction of equity.

2-4 Foreign currency transaction

2-4-1 Functional currency

When preparing for the interim consolidated financial statements, the Group measures and recognizes all items and transactions according to the functional currency. The term functional currency is defined as the monetary unit of account of the principal economic environment in which the entity operates and trades between entities using its own functional currency and other currencies that are converted to the Group's functional currency to be measured and recognized.

2-4-2 Transactions and balances at the end of the reporting period

Transactions in foreign currencies are initially recognized as functional currency, applying spot or average exchange rates. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange at the reporting date and differences arising on settlement or translation of monetary items are recognized in profit or loss. Non-monetary assets and liabilities at fair value in a foreign currency are translated at the exchange rates at the end of the reporting date. When a gain or loss on a

non-monetary item is recognized in profit or loss, any exchange differences of that gain or loss are recognized in profit or loss and when a gain or loss on a non-monetary item is recognized in other comprehensive income, any exchange differences of that gain or loss are recognized in other comprehensive income. Non-monetary items not measured at fair value in a foreign currency are translated using the exchange rates as of the dates of the initial transactions and thus, there are no exchange differences.

However, an item for which settlement is neither planned nor likely to occur in the foreseeable future is, in substance, a part of the entity's net investment in that foreign operation. Exchange differences arising on a monetary item that forms a part of a reporting entity's net investment in a foreign operation are recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal of the net investment.

2-4-3 Translation of the presentation currency

As of the reporting date, the assets and liabilities of overseas branches are translated into the Group's presentation currency, Korean won ("KRW").

The Group's assets and liabilities are translated at the rate of exchange prevailing at the reporting date and the Group's interim consolidated statements of profit or loss and other comprehensive income and changes in equity are translated using the exchange rates at the transaction date or the average exchange rates for the period. The exchange differences arising on translation are recognized in other comprehensive income.

2-5 Cash and cash equivalents

Cash and cash equivalents in the interim consolidated statements of financial position are composed of cash at bank and on hand, etc. The purpose of cash and cash equivalents is not to make short-term investments, but to meet short-term cash demands. Cash and cash equivalents are highly liquid, easily convertible and subject to an insignificant risk of changes in value.

Deposits restricted from use by the Group under contracts with third parties are included as part of cash, unless such restrictions prevent deposits from meeting the definition of cash any longer. Contractual restrictions affecting the use of cash and deposits are described in Note 10-2.

2-6 Financial asset classification and subsequent measurement

At initial recognition, financial assets are classified as measured at fair value through profit or loss ("FVTPL"), fair value through other comprehensive income ("FVOCI") and amortized cost ("AC"), and financial liabilities are classified as measured at FVTPL and AC and in accordance with the business model and characteristics of the contractual cash flows.

Regular-way purchase or sale of financial assets is recognized at the trade date that an entity commits itself to purchase or sell an asset. Regular-way purchase or sale of financial assets means purchase or sale of financial assets under a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned.

Financial assets and liabilities are initially measured at fair value and the transaction costs directly attributable to the acquisition (issuance) of financial assets (liabilities) are added to (deducted from) the fair value at initial recognition if they are not measured at FVTPL. The fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of financial instruments is generally measured at the transaction price (the fair value of the consideration received or transferred) at initial recognition.

2-6-1 Financial assets at FVTPL

Financial assets held for trading or designated as at FVTPL and financial assets that are not classified as at FVOCI or AC are classified as FVTPL.

Also, the Group may designate a financial asset as measured at FVTPL if doing so eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on a different base.

Financial assets at FVTPL are measured at fair value and the gain or loss on valuation is recognized as profit or loss. Dividends and interest income from the financial assets are also recognized as profit or loss.

2-6-2 Financial assets at FVOCI

The Group classifies debt securities, which are held within a business model, whose objective is achieved by both collecting contractual cash flows and selling financial assets and meet the assessment of contractual cash flow characteristics and equity securities designated as measured at FVOCI, which are held not with intention to sell, but for strategic purpose, as financial assets at FVOCI. Financial assets at FVOCI are measured at fair value after initial recognition. Gain or loss arising from changes in the fair value is recognized as other comprehensive income, except for interest income under the effective interest rate ("EIR") method, dividends and foreign exchange differences on monetary assets that are directly recognized in profit or loss.

When financial assets at FVOCI are disposed of, the cumulative income recognized in other comprehensive income is transferred to the current profit or loss. However, the cumulative income recognized for equity securities designated as financial assets at FVOCI is not transferred to the current profit or loss.

The fair value of financial assets at FVOCI presented in foreign currencies is translated using the exchange rate at the end of the reporting period. Changes in the fair value from exchange differences due to changes in AC are recognized in the current profit or loss, while other changes are recognized directly in equity.

2-6-3 Financial assets at AC

Financial assets within a business model whose objective is achieved by collecting contractual cash flows, which meet the contractual cash flow characteristics are classified as financial assets at AC. After initial recognition, the financial assets are measured at AC using the effective interest rate method and presented by deducting from the AC the allowance for loan losses. Interest income is recognized using the effective interest method.

The Group defers loan origination fees ("LOF")/loan origination costs ("LOC") associated with originating loans and LOCs that have future economic benefits. Loan balances are reported net of these LOF/LOCs. The deferred LOF/LOCs are amortized based on the effective interest method, with the amortization recognized as adjustments to interest income.

2-7 Derivative financial instruments and hedge accounting

Derivative instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are classified as trading derivatives or hedging derivatives depending on whether hedge accounting is applied. After initial recognition, derivative instruments are subsequently remeasured at fair value. Any gains or losses arising from changes in fair value on derivatives are taken directly to the interim consolidated financial statements, except for the effective portion of cash flow hedges or hedges of net investment in a foreign operation, which is recognized in other comprehensive income.

The Group applies fair value hedge accounting to hedge the changes in fair value, as a whole or some parts, of recognized assets or liabilities from particular risks or an unrecognized firm commitment. Cash flow hedge is accounted to hedge the changes in cash flows of recognized assets or liabilities from particular risks or a highly probable forecast transaction.

The Group documents the hedge relationship, risk management objective, strategy, the nature of the risk being hedged and method to assess the effectiveness of hedge to apply hedge accounting. The effectiveness of hedge means the effect of offsetting the exposure to changes in fair value or cash flow of hedged items by changes in fair value or cash flow of derivatives attributed by the hedged risk. The Group assesses and documents whether such hedges are expected to be highly effective at the end of the reporting period.

An ineffective part of the hedge may be due to differences between underlying variables, such as acquisition date, credit risk or liquidity and the hedging instruments that the entity accepts to achieve an effective cost-to-cost hedging relationship.

2-7-1 Fair value hedges

When fair value hedge accounting is applied, the unrealized gain or loss on hedged items that are attributable to a hedged risk and hedging instruments is symmetrically recognized in the interim consolidated financial statements as current income for the same reporting period to ensure that changes in the fair value of the hedged items are offset by changes in the fair value of the hedging instruments. When the hedged item is an equity instrument designated at FVOCI, the hedging gain or loss remains in other comprehensive income. If an application of hedge accounting is no longer valid, the Group discontinues the hedge accounting prospectively. Any adjustment to the carrying amount of hedged items is amortized to profit or loss in the interim consolidated statements of profit or loss and other comprehensive income over the remaining maturity using the effective interest method.

2-7-2 Cash flow hedges

When cash flow hedge accounting is applied, the effective portion of the unrealized gain or loss on the hedging instrument is directly recognized in other comprehensive income (loss) in the interim consolidated statements of financial position to ensure that changes in the cash flows of the hedged items are offset by changes in the cash flows of the hedging instruments while any ineffective portion is recognized immediately in the interim consolidated statements of profit or loss and other comprehensive income. Amounts recognized as other comprehensive income are transferred to the interim consolidated statements of profit or loss and comprehensive income when the hedged transaction affects profit or loss. If an application of hedge accounting no longer meets the criteria, the Group discontinues the hedge accounting prospectively and the cumulative gain or loss on the hedging instrument previously recognized in other comprehensive income is transferred to profit or loss in the interim consolidated statements of profit or loss and other comprehensive income.

2-7-3 Hedge accounting of net investment in a foreign operation

When applying hedge accounting of net investment in a foreign operation, the effective portion of changes in fair value of the hedging instrument is recognized in other comprehensive income and the ineffective portion of the hedge is recognized as current profit or loss in order to offset changes in the fair value of the hedged item caused by the hedging with changes in the fair value of the hedging instrument. The effective portion of hedge recognized in other comprehensive income will be reclassified from other comprehensive income to current profit or loss in accordance with K-IFRS 1021, *The Effects of Changes in Foreign Exchange Rates*, at the time of disposal of a foreign operation or disposal of a portion of its foreign operations in the future.

2-7-4 Embedded derivatives

An embedded derivative is a component of a hybrid contract that also includes a non-derivative host with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative. Derivatives embedded in other financial instruments or other host contracts are accounted for as separate derivatives when their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

2-7-5 'Day 1' profit or loss

In case of derivatives in Level 3, fair value is determined using data that is not observable from markets. The difference between the transaction price and fair value at initial recognition (a 'Day 1' profit or loss) is deferred and amortized up to its maturity using the straight-line method.

2-7-6 Credit risk valuation adjustment

When assessing derivatives at fair value, expected loss from credit risk is measured and deducted from derivative assets to reflect credit risk of counterparties.

2-8 Expected credit loss ("ECL") for financial assets

Loss allowance is recognized for financial assets at FVOCI and AC using the ECL model.

ECL is the weighted-average amount of possible outcomes within a certain range, reflecting the time value of money; estimates in the past; current and future situations; and information accessible without excessive cost or effort.

The ECL can be measured in following three ways:

- General approach: when financial assets do not fall into below two categories and are off-balance-sheet undrawn commitments
- Simplified approach: when financial assets are trade receivables, contract assets or lease receivables
- Credit-impaired approach: when financial assets are credit impaired at initial recognition

The general approach is applied differently depending on the significance of the increase of the credit risk. If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Group shall measure the loss allowance for that financial instrument at an amount equal to 12-month ECL. If the credit risk on that financial instrument has increased significantly since initial recognition, the Group shall measure the loss allowance for a financial instrument at an amount equal to the lifetime ECL at each reporting date.

The loss allowance is measured at an amount equal to lifetime ECL for the simplified approach and the Group shall only recognize the cumulative changes in lifetime ECL since initial recognition as a loss allowance for purchased or originated credit-impaired financial assets at each reporting date for the credit-impaired approach.

The following non-exhaustive list of information may be relevant in assessing changes in credit risk:

- Significant changes in internal price indicators of credit risk as a result of a change in credit risk since inception.
- Other changes in the rates or terms of an existing financial instrument that would be significantly different.
- An actual or expected significant change in the financial instrument's external credit rating.

- An actual or expected internal credit rating downgrade for the borrower or a decrease in behavioral scoring used to assess credit risk internally.
- An actual or expected significant change in the operating results of the borrower.
- Past-due information, etc.

2-8-1 Reflecting forward-looking information

The Group measures the significance of the increase in credit risk and the ECL using forward-looking information.

The Group assumes that the risk component is correlated with changes in market conditions and calculates the ECL using the forward-looking information by modeling macroeconomic variables and risk components.

The forward-looking information used to measure the ECL is derived from 'stress-case' or 'worst-case' scenarios.

2-8-2 Measurement of ECL for financial assets at AC

ECL for financial assets at AC is measured as the present value of the difference between the contractual cash flows that are due to the Group under the contract and the cash flows that the Group expects to receive. For this purpose, the Group calculates expected contractual cash flows for individually significant financial assets (allowance for loan losses on an individual assessment). Financial assets insignificant in value individually are measured on a collective basis with financial assets with similar credit risks (allowance for loan losses on a collective assessment).

2-8-2-1 Allowance for loan losses on an individual assessment basis

Allowance for loan losses on an individual assessment basis is based on the best estimates of management with regard to the present value of cash flows expected to be recovered from receivables. In estimating the cash flows, the Group uses all available information, including the financial conditions, such as the operating cash flows of counterparties and the net realizable value of collateral provided.

2-8-2-2 Allowance for loan losses on a collective assessment basis

Allowance for loan losses on a collective assessment basis uses the estimation model that accounts for the forward-looking information based on the past loss rate to measure the ECL. The model considers the Probability of Default ("PD") and the loss-given default ("LGD") reflecting the type of instruments and borrowers, credit rating, portfolio size and collection period. Also, certain assumptions are applied to model the ECL measurement and to determine input variables based on past experiences and forward-looking information.

Methodologies and assumptions for this model are regularly reviewed to minimize the difference between the allowance for loan losses and the actual loss.

The ECL for financial assets at AC is recognized as the allowance for loan losses, and when the financial asset is determined to be irrecoverable, the carrying amount and the allowance for loan losses are decreased. If financial assets previously written off are recovered, the allowance for loan losses is increased and the difference is recognized in the current-period profit or loss.

2-8-3 ECL measurement for financial assets at FVOCI

The measurement method is the same as the one for financial assets at AC, but the change in the allowance is recognized as other comprehensive income. The allowance for financial assets at FVOCI is reclassified from other comprehensive income to current profit or loss when the assets are disposed of or repaid.

2-9 Derecognition of financial assets

A financial asset is derecognized when the contractual rights to the cash flows from the financial asset expire, or the Group transfers substantially all the risks and rewards of ownership of the financial asset. If the Group neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, but has retained control, the Group recognizes the asset and the associated liability to the extent of the Group's continuing involvement in the financial asset. If most of the risks and rewards of owning a financial asset are controlled without holding or transferring it, the Group recognizes them in its consolidated statements of financial position as the Group continues to be involved in the financial asset and related liabilities to be paid.

On derecognition of a financial asset measured at AC, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. In addition, on derecognition of an investment in a debt instrument classified as at FVOCI, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to profit or loss. In contrast, on derecognition of an investment in an equity instrument that the Group has elected on initial recognition to measure at FVOCI, the cumulative gain or loss previously accumulated in the investments revaluation reserve is not reclassified to profit or loss, but is transferred to retained earnings.

2-10 Classification and measurement of financial liabilities

All financial liabilities that are classified as financial liabilities at FVTPL, borrowings or others are measured initially at their fair value, minus transaction costs, except in the case of financial liabilities recorded at FVTPL.

2-10-1 Financial liabilities at FVTPL

Financial liabilities at FVTPL include financial liabilities held for trading and financial liabilities designated upon initial recognition as at FVTPL. Financial liabilities are classified as held for trading if they are acquired for the purpose of selling in the near term. All derivatives, including an embedded derivative separated from the host contract, are reclassified as financial liabilities at FVTPL, except for financial liabilities designated as effective hedging instruments or financial guarantee contracts. After initial recognition, the changes in the fair value of the financial liabilities at FVTPL and the related interest expenses are recognized as profit or loss.

The Group performs securities lending and borrowing classified as held-for-trading financial liabilities. When the Group borrows securities from Korea Securities Depository, securities borrowed are managed as memorandum value, and when selling them, they are recorded as securities sold. At closing, the difference between the price securities are sold and the market price prevailing on the closing date is taken into account as valuation gain or loss on securities sold, and at the time of selling the securities, the difference between book value and the price at which securities are purchased is recorded as trading gain or loss on securities sold.

2-10-2 Deposits, borrowings and debentures

Interest-bearing deposits, borrowings and debentures are subsequently measured at AC using the effective interest method. The difference between the consideration received after deducting transaction costs and the amount repayable on maturity is amortized by the effective interest method and recognized in profit or loss for the relevant period.

2-11 Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged, canceled or expired. When an existing financial liability is replaced by another from the same lender on substantially different terms or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the consolidated statements of profit or loss and other comprehensive income. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, discounted using the original EIR, is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability.

2-12 Offsetting of financial assets and liabilities

Financial assets and financial liabilities are offset, and the net amount is reported in the interim consolidated statements of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

2-13 Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. If the obligation is expected, it is unlikely or the amount of the loss cannot be estimated reliably, the amount is disclosed. If the effect of the time value of money is material, provisions are stated at present value.

The Group accounts for the payment guarantee provision in the same way as accounting allowance for loan losses on a collective assessment basis by applying the Cash Conversion Factor to the confirmed/unconfirmed payment guarantees and bills endorsed. The Group provides an allowance for loan losses on a certain portion of the unused credit line. The Group records the provision for such unused balances as an allowance for loan losses on unused commitments, which are calculated by applying a credit conversion factor and provision rates.

2-14 Financial guarantee contract

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument and is measured at fair value on the date of initial recognition. After initial recognition, the Group, as an issuer of such a contract, measures it at the higher of (i) the amount determined in accordance with K-IFRS 1109, *Financial Instruments*, or (ii) the amount initially recognized less, when appropriate, cumulative amortization recognized in accordance with K-IFRS 1115, *Revenue from Contract with Customer*.

2-15 Bonds purchased under resale agreements and bonds sold under repurchase agreements

Bonds purchased under resale agreements and bonds sold under repurchase agreements are included in loans and borrowings, respectively, in the accompanying interim consolidated statements of financial position. Interest income and expenses from purchases or sales are recognized as interest income on loans and interest expenses on borrowings, respectively.

2-16 Property, plant and equipment

Property, plant and equipment are measured at cost, and the carrying amount after initial recognition is expressed as the amount of the acquisition cost minus the accumulated depreciation and the accumulated impairment loss. The cost of property, plant and equipment includes expenditure directly related to the

purchase or construction of the asset, including the cost directly related to the location and condition required to operate the asset in the manner intended by management and the cost initially estimated to be required to dismantle, remove or restore the site.

The subsequent costs are recognized as an asset when it is probable that future economic benefits associated with the asset will flow to the Group and the costs of the asset can be measured reliably. The other maintenances and repairs are expensed in the year in which they are incurred, and the carrying amount of certain parts that are replaced is derecognized.

Land is not depreciated. For depreciation of other assets, amount of acquisition cost, less residual value, is calculated on a straight-line basis and declining-balance basis over the following estimated useful life of the asset:

Classification	Depreciation method	Years
Buildings, building components and structures	Straight-line method	5 to 55
Leasehold improvements	Straight-line method	3 to 10
Equipment and vehicles	Declining-balance method	3 to 20

If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is immediately reduced to its recoverable amount.

The residual value and economic useful life are reviewed at the end of each reporting period, with the effect of any changes in estimates being accounted for, if necessary. Any gain or loss arising on the derecognition of the asset is recognized in 'Non-operating income' or 'Non-operating expenses' in the interim consolidated statements of profit or loss and other comprehensive income in the year the asset is derecognized.

2-17 Investment properties

Investment properties are initially measured at cost, including transaction costs. Subsequent to initial recognition, investment properties are stated using the cost model.

Investment properties are derecognized either when they have been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in the interim consolidated statements of profit or loss and other comprehensive income in the period of derecognition, and transfers are made to or from investment property only when there is a change in use. Land is not depreciated among investment properties, and the depreciation method of the buildings is a straight-line method, and their useful life is 5 to 55 years. The depreciation method, residual value and useful life of investment property are reviewed at the end of each reporting period, and if it is deemed appropriate to change it, it is accounted for as a change in accounting estimates.

2-18 Intangible assets

An intangible asset, which comprises industrial property rights, software, development costs and others, is recognized as an asset only if it is probable that future economic benefits associated with the asset will flow to the Group and the costs of the asset can be measured reliably. Intangible assets acquired individually are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is their fair value as of the date of acquisition in accordance with K-IFRS 1103, *Business Combination*. Amortization of intangible assets with definite useful lives is calculated using the following amortization method over the estimated useful life of the assets:

Classification	Depreciation method	Years
Industrial property rights, software and system development costs	Straight-line method	5
Core deposits	Straight-line method	14
Other intangible assets	Straight-line method	1 to 12

Intangible assets with indefinite useful lives are not amortized, but are annually tested for impairment or whenever there is an indication that the intangible asset may be impaired. The assessment of indefinite useful life is reviewed annually to determine whether the indefinite useful life continues to be supportable.

2-19 Impairment of non-financial assets

The Group tests the depreciable asset for impairment whenever there is a change in environment or an event indicating that the carrying amount may not be recoverable. The Group recognizes an excess of the carrying amount over the recoverable amount as an impairment loss. The Group defines recoverable amount as the higher of an asset's or cash-generating unit ("CGU")'s fair value, less costs to sell, or its value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels (CGUs) for which there are separate and identifiable cash flows. The Group assesses the reversal of an impairment loss recognized for non-financial assets other than goodwill at the end of the reporting period.

2-20 Net defined benefit liabilities (assets)

The Group calculates defined benefit liabilities and pension benefit expenses based on a defined benefit plan and defined contribution plan when an employee retires in accordance with pension-related regulations. For defined benefit plans, the cost of retirement benefits is measured by an actuary services company using the projected unit credit method. The present value of a defined benefit obligation is computed by discounting expected future cash outflows using the market rate of return measured against the yield of high-graded corporate bonds whose date of payment and maturity is similar to that of a defined benefit

obligation. Actuarial gains and losses, incurred from the change in actuarial assumptions and the difference between the assumptions and the actual results, are recognized in other comprehensive income for the period. Past service cost is recognized immediately to the extent that the benefits are already vested; and otherwise, it is amortized on a straight-line basis over the period until the benefits become vested.

The Group has entered into retirement trust fund and retirement pension plan agreements to pay retirement benefits to its employees. The retirement benefit obligation represents the present value of the defined benefit obligation as adjusted for unrecognized past service costs and as reduced by the fair value of plan assets. Any asset resulting from this calculation is limited to unrecognized actuarial losses and past service costs, plus the present value of available refunds and reductions in future contributions to the plan.

Discretionary contributions made by employees or third parties reduce service cost upon payment of these contributions to the plan. When the formal terms of the plans specify that there will be contributions from employees or third parties, the accounting treatment depends on whether the contributions are linked to service, as follows:

- If the contributions are not linked to services (e.g., contributions are required to reduce a deficit arising from losses on plan assets or from actuarial losses), they are reflected in the remeasurement of the net defined benefit liability (asset).
- If contributions are linked to services, they reduce service costs. For the amount of contribution that is dependent on the number of years of service, the entity reduces service cost by attributing the contributions to periods of service using the attribution method required by K-IFRS 1019, paragraph 70, for the gross benefits. For the amount of contribution that is independent of the number of years of service, the entity reduces service cost in the period in which the related service is rendered.

2-21 Share-based payment

In the case of equity-settled share-based payments, the goods or services received and the corresponding increase in equity are measured directly at the fair value of the goods or services and accounted for as compensation costs and equity. If the goods or services provided cannot be reliably measured, the endowed equity is indirectly estimated at fair value and the Group accounts for compensation costs and equity (capital adjustment). The cost of cash-settled transactions is measured initially at fair value at the grant date, taking into account the terms and conditions upon which the instruments were granted. This fair value is expensed over the period until vesting with recognition of a corresponding liability. The liability is remeasured to fair value at each reporting date up to, including the settlement date, with changes in fair value recognized in the interim consolidated statements of profit or loss and other comprehensive income. Also, in the case of a selectable share-based payment transaction in which the employees have a choice between a cash-settled transaction and an equity-settled transaction, the Group records the amount depending on its substance.

2-22 Employee benefits

2-22-1 Short-term employee benefits

When employees have rendered services to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits. This amount is expected to be settled in whole before 12 months after the end of the reporting period, in exchange for those services.

2-22-2 Termination benefits

The Group recognizes an expense for termination benefits when an employee accepts the offer or when a restriction on the Group's ability to withdraw the offer takes effect.

2-23 Recognition of income tax expenses and deferred tax assets and liabilities

Income taxes are composed of current and deferred taxes. All items related to taxes, other than those recognized directly in equity, are accounted for in the interim consolidated statements of profit or loss and other comprehensive income. Accordingly, items recognized directly in equity and the related taxes are accounted for as other comprehensive income in the interim consolidated statements of profit or loss and other comprehensive income.

The tax rates and tax laws used to compute the amount are those that are enacted, or substantively enacted, by the reporting date, in the countries where the Group operates and generates taxable income. If the applied tax laws require an interpretation, the Group calculates income tax payable expected to be paid to the taxation authorities based on the opinion made when the taxes were reported.

Deferred tax is provided on the temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

The Group measures deferred tax assets and liabilities at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted, or substantively enacted, by the end of the reporting period.

The Group recognizes a deferred tax asset for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilized.

The Group recognizes a deferred tax liability for all taxable temporary differences related to investments in subsidiaries and associates, except to the extent that both of the following conditions are satisfied: (a) the Group is able to control the timing of the reversal of the temporary difference and (b) it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences, and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

The Group offsets deferred tax assets and liabilities if, and only if, the Group has a legally enforceable right to set off current tax assets against current tax liabilities, and the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities, which intend either to settle current tax liabilities and assets on a net basis or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

2-24 Equity

2-24-1 Classification of equity

The Group classifies financial instruments at initial recognition as either financial liabilities or financial equity depending on the contractual materiality. In the case where it is possible to avoid the related contractual obligations, the financial item is classified as financial equity. An equity is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities.

2-24-2 Stock issuance costs

New stock issuance costs or incremental costs related to the stock issuance for business combinations are recorded as a deduction from paid-in capital, net of tax effects.

2-25 Earnings per share

Basic and diluted earnings per share ("EPS") are computed by dividing net income by the weighted-average number of shares of common stock outstanding during the year.

2-26 Accounting basis for trust accounts

The Group accounts for trust operations (the "trust accounts") separately from the Group's accounts in accordance with the *Financial Investment Services and Capital Markets Act*. In this regard, the funds lent by the Group to the trust account are accounted for as due to trust accounts of the Group's accounts, and the funds borrowed by the Group from the trust account are accounted as due from trust accounts of the Group's accounts. Trust compensation paid to the trustee (the Group) in connection with the operation, management and disposal of trust property is accounted as trust operation profits. The Group recognizes trust commissions earned from trust accounts as income from trust operations in connection with the operation, management and disposal of trust property. In addition, in the case of a joint operation money trust with a "guarantee contract of the principal or profits" of the trust account, if the operating profit falls short of the "principals to be preserved or profits to be guaranteed" and this shortage is more than covered by the trust compensation and special reserves, the Group accounts the amount paid to the trust account as the trust account's operating losses.

2-27 Lease accounting

Under K-IFRS 1116, *Leases*, the Group applies a single recognition and measurement method for all leases, except for leases of low-value assets. This standard provides guidance on specific requirements and simplified methods applied by an entity.

The Group recognized the right-of-use assets and the lease liabilities that were previously classified as operating leases, except for leases of low-value assets. Right-of-use assets for most leases were recognized as carrying amounts measured as if they had been applying the standards from the inception of the lease, except that they were discounted at the lessee's incremental borrowing rate as of the date of initial application. In some leases, the right-of-use asset was recognized based on the amount equal to the lease liabilities, adjusted for any related prepaid and accrued lease payments previously recognized. The lease liability was measured at the present value of the remaining lease payments, discounted at the incremental borrowing rate as of the date of the initial application.

The practical expedients that the Group applied are as follows:

- Application of a single discount rate to a portfolio of leases with significantly similar characteristics
- Replacement of impairment review by determining whether leases are onerous before the initial application date
- Exclusion of initial direct costs from the measurement of the right-of-use asset at the initial application date
- Using hindsight for lessee

Leases for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Group's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

2-28 Merchant banking account

As permitted by the Restructuring of Financial Institutions Act, the Group may continue its merchant banking operations, including leasing business, until the existing contracts acquired from the Korea International Merchant Bank upon merger are terminated.

Material accounting policies applied to the Group's merchant banking operations are summarized as follows:

2-28-1 Revenue recognition on discounted notes

Interest income on discounted notes is accrued over the term of the notes. Income from the sale of discounted notes is recognized at the date of transaction based on the difference between the purchase prices and sales prices of the notes, adjusted for interest earned during the holding period.

2-28-2 Cash Management Accounts ("CMA")

The Group recognizes interest income from CMA investments and interest expenses from CMA deposits as operating income and operating expenses, respectively.

2-29 Interest income and interest expenses

Interest income and interest expenses are recognized over time using the effective interest method.

The effective interest method is a method of calculating the AC of a financial asset or a financial liability and allocating the interest income or interest expenses over the relevant period. The EIR is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. When calculating the EIR, the Group estimates cash flows considering all contractual terms of the financial instrument, but does not consider future credit losses. Cash flows at the time of

the calculation include all the fees and points paid to or received, from parties to the contract that are an integral part of the EIR, including transaction costs, and all other premiums or discounts.

2-30 Fees and commission income

The Group's revenue recognition standard varies depending on the type of service provided to customers. Fee income, which is an integral part of the EIR of financial instruments, is adjusted using the EIR and recognized as interest income.

Fee income is recognized using the five-stage revenue recognition model (Identification of a contract with a customer → Identification of performance obligations in the contract → Determination of the transaction price → Allocation of the transaction price to the separate performance obligations in the contract → Recognition of revenue upon satisfying the performance obligations) in accordance with K-IFRS 1115.

2-31 Dividend income

Dividend income is recognized when the Group's right to receive the payment is established.

2-32 Government grants

Government grants are recognized at fair value when there is a reasonable assurance that the entity will comply with the conditions attached to it and that the grant will be received. Grants related to income are recognized as revenue on a systematic basis over the period necessary to match the related costs that the grant is intended to cover. On the other hand, grants related to an asset are presented by subtracting the carrying amount of the asset and accounting for by deducting depreciation expenses over the useful life of the asset.

3. MATERIAL JUDGMENTS AND ACCOUNTING ESTIMATES:

In the application of the Group's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily observable from objective sources. The estimation and assumption are based on other factors that are related to historical experience. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future period if the revision affects both current period and future period.

In the process of applying the Group's accounting policies, management has made the following judgments that have a material effect on the amounts recognized in the interim consolidated financial statements:

3-1 Fair value of financial instruments

The fair value of financial instruments is determined by referencing quoted market prices in active markets in the first place. For financial instruments not traded in an active market, the fair value is determined using appropriate valuation techniques, including (i) between knowledgeable and willing parties in a recent arm's-length transaction, (ii) reference to the current fair value of another instrument that is substantially the same, (iii) discounted cash flow ("DCF") analysis and (iv) option-pricing models.

3-2 ECL of financial assets

The Group recognizes impairment losses on debt instruments, lease receivables, loan commitment and financial guarantee contracts that were accounted for at AC, or at FVOCI, based on the ECL impairment model using a three-stage model for 12-month ECL, or lifetime ECL, based on changes in credit risk since initial recognition of financial assets.

Classification		Loss allowance
STAGE 1	Credit risk on a financial instrument has not increased significantly since initial recognition.	12-month ECL: ECLs that result from default events on a financial instrument that are possible within the 12 months after the reporting date.
STAGE 2	Credit risk on a financial instrument has increased significantly since initial recognition.	Lifetime ECL: ECLs that result from all possible default events over the expected life of a financial instrument.
STAGE 3	Credit impaired.	

The cumulative changes in lifetime ECL since initial recognition are recognized as loss allowance for a financial asset that is considered credit impaired at initial recognition.

3-3 Retirement benefit

The cost of providing benefits under the defined benefit plans is determined using actuarial valuation. Actuarial assumptions were made for the discount rate and an increase in the future pay rate. Retirement benefits include significant uncertainties in the estimates due to the longer duration of the period.

3-4 Impairment of non-financial assets

The Group assesses at the end of each reporting period, whether there is an indication that non-financial assets may be impaired. An intangible asset with an indefinite useful life is tested for impairment annually or tested whenever there is an indication that the intangible asset may be impaired. Other non-financial assets are tested for impairment whenever there is an indication that the book value cannot be recovered. For the calculation of value in use, management estimates an expected future cash flow incurred from the asset or CGU. For the calculation of present value of the expected future cash flow, appropriate discount rate is selected.

3-5 Income tax

There have been various transactions and tax accounting methods, which have made computing the final tax expenses for the period uncertain. The contingent liability from any future tax assessments is based on the estimates of the likelihood of additional taxes imposed and has been included in the Group's interim consolidated financial statements for the current period. When the finalized tax expense assessments are different from the appropriated amounts, the differences, if any, are recognized in current deferred tax assets, liabilities and expenses for the period.

4. FAIR VALUE MEASUREMENT OF FINANCIAL ASSETS AND LIABILITIES:

The standards the Group applies when measuring fair values of financial assets and liabilities are described below:

- a. Quoted market prices at the settlement date in an active market are the best evidence of fair value and should be used when available.
- b. If a market for a financial instrument is not active, the Group establishes fair value using a valuation technique that makes maximum use of market inputs and includes (i) between knowledgeable and willing parties in a recent arm's-length transaction, (ii) reference to the current fair value of another instrument that is substantially the same, (iii) DCF analysis and (iv) option-pricing models. An acceptable valuation technique incorporates all factors that market participants would consider in setting a price and is consistent with accepted economic methodologies for pricing financial instruments.
- c. When determining fair value using the valuation techniques, comparison with the current market transaction of another instrument that is substantially the same as the financial instrument needed to be objectively substantiated or inclusion of variables in the marketable data must be performed. Not all significant market variables are observable, and in relevant cases, the reasonable estimates or assumptions are required to determine the fair value.

4-1 Fair value hierarchy of financial instruments

Fair value hierarchy of financial instruments as of September 30, 2024, and December 31, 2023, is as follows (KRW in millions):

September 30, 2024:

Classification	Levels of the fair value hierarchy (*1)			Total
	Level 1	Level 2	Level 3	
Financial assets				
Financial assets at FVTPL				
Equity securities	49,077	–	34,734	83,811
Debt securities	6,811,242	6,973,649	1,543,490	15,328,381
Derivative assets held for trading	–	5,626,003	37,532	5,663,535
Private convertible bonds	–	–	7,598	7,598
Subtotal	6,860,319	12,599,652	1,623,354	21,083,325
Financial assets at FVOCI				
Equity securities	189,239	38	497,976	687,253
Debt securities	7,560,061	23,170,543	–	30,730,604
Subtotal	7,749,300	23,170,581	497,976	31,417,857
Derivative assets used for hedging	–	36,338	–	36,338
Merchant banking account assets	–	4,107,786	–	4,107,786
Total	14,609,619	39,914,357	2,121,330	56,645,306
Financial liabilities				
Financial liabilities at FVTPL				
Derivative liabilities held for trading	3,631	5,563,762	35,701	5,603,094
Securities borrowed	358,452	–	–	358,452
Financial liabilities designated at FVTPL	–	431,447	–	431,447
Subtotal	362,083	5,995,209	35,701	6,392,993
Derivative liabilities used for hedging	–	259,602	25,749	285,351
Total	362,083	6,254,811	61,450	6,678,344

(*1) The Group recognizes transfers between levels at the beginning of reporting period when events or changes in circumstances causing the transfers between levels have occurred.

December 31, 2023:

Classification	Levels of the fair value hierarchy (*1)			Total
	Level 1	Level 2	Level 3	
Financial assets				
Financial assets at FVTPL				
Equity securities	74,230	–	24,995	99,225
Debt securities	4,997,752	5,139,180	1,305,400	11,442,332
Derivative assets held for trading	–	5,929,311	36,561	5,965,872
Private convertible bonds	–	–	7,447	7,447
Subtotal	5,071,982	11,068,491	1,374,403	17,514,876
Financial assets at FVOCI				
Equity securities	159,851	37	490,578	650,466
Debt securities	13,499,102	22,744,543	–	36,243,645
Subtotal	13,658,953	22,744,580	490,578	36,894,111
Derivative assets used for hedging	–	1,723	–	1,723
Merchant banking account assets	–	4,637,824	–	4,637,824
Total	18,730,935	38,452,618	1,864,981	59,048,534
Financial liabilities				
Financial liabilities at FVTPL				
Derivative liabilities held for trading	979	6,002,522	38,565	6,042,066
Securities borrowed	452,426	–	–	452,426
Financial liabilities designated at FVTPL	–	234,718	–	234,718
Subtotal	453,405	6,237,240	38,565	6,729,210
Derivative liabilities used for hedging	–	363,174	27,805	390,979
Total	453,405	6,600,414	66,370	7,120,189

(*1) The Group recognizes transfers between levels at the beginning of reporting period when events or changes in circumstances causing the transfers between levels have occurred.

The Group classifies and discloses the fair value of the financial instruments into the following three hierarchies:

- a. Level 1: The fair values are based on quoted prices (unadjusted) in active markets.
- b. Level 2: The fair values are based on techniques using observable market data.
- c. Level 3: The fair values are based on techniques using unobservable inputs.

Details of fair value, valuation techniques and inputs used to develop those measurements classified into Level 2 assets and liabilities that are measured at fair value as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Fair value	Valuation techniques	Inputs
Financial assets			
Financial assets at FVTPL			
Debt securities	6,973,649	Net asset value and DCF model	Underlying asset prices, such as bonds, stock, etc., and Discount rate
Derivative assets held for trading	5,626,003	Black-Scholes model, Black model, DCF model and Hull-White one-factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility and Yield curve of each currency
Subtotal	12,599,652		
Financial assets at FVOCI			
Equity securities	38	Market value	Stock price
Debt securities	23,170,543	DCF model	Discount rate
Subtotal	23,170,581		
Derivative assets used for hedging	36,338	Hull-White one-factor model and DCF model	Exchange rate, Swap yield curve, Swaption volatility and Yield curve of each currency
Merchant banking account assets	4,107,786	DCF model	Discount rate
Total	39,914,357		
Financial liabilities			
Financial liabilities at FVTPL			
Derivative liabilities held for trading	5,563,762	Black-Scholes model, Black model, DCF model and Hull-White one-factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility and Yield curve of each currency
Financial liabilities designated at FVTPL	431,447	Hull-White one-factor model	Swap yield curve and Swaption volatility
Subtotal	5,995,209		
Derivative liabilities used for hedging	259,602	Hull-White one-factor model and DCF model	Exchange rate, Swap yield curve, Swaption volatility and Yield curve of each currency
Total	6,254,811		

December 31, 2023:

Classification	Fair value	Valuation techniques	Inputs
Financial assets			
Financial assets at FVTPL			
Debt securities	5,139,180	Net asset value and DCF model	Underlying asset prices, such as bonds, stock, etc., and Discount rate
Derivative assets held for trading	5,929,311	Black-Scholes model, Black model, DCF model and Hull-White one-factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility and Yield curve of each currency
Subtotal	11,068,491		
Financial assets at FVOCI			
Equity securities	37	Market value	Stock price
Debt securities	22,744,543	DCF model	Discount rate
Subtotal	22,744,580		
Derivative assets used for hedging	1,723	Hull-White one-factor model and DCF model	Exchange rate, Swap yield curve, Swaption volatility and Yield curve of each currency
Merchant banking account assets	4,637,824	DCF model	Discount rate
Total	38,452,618		
Financial liabilities			
Financial liabilities at FVTPL			
Derivative liabilities held for trading	6,002,522	Black-Scholes model, Black model, DCF model and Hull-White one-factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility and Yield curve of each currency
Financial liabilities designated at FVTPL	234,718	Hull-White one-factor model	Swap yield curve and Swaption volatility
Subtotal	6,237,240		
Derivative liabilities used for hedging	363,174	Hull-White one-factor model and DCF model	Exchange rate, Swap yield curve, Swaption volatility and Yield curve of each currency
Total	6,600,414		

Details of fair value, valuation techniques, inputs used to develop those measurements and quantitative information about the significant unobservable inputs classified into Level 3 assets and liabilities that are measured at fair value as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Fair value	Valuation techniques	Inputs	Significant unobservable inputs	Range (%)	The effect of changes in unobservable inputs on fair value
Financial assets						
Financial assets at FVTPL						
Equity securities	34,734	DCF model, Comparable Company Analysis and Net asset value	Growth rate, Discount rate, Liquidating value and Underlying asset price	Growth rate	–	Positive
				Discount rate	10.39	Negative
				Liquidating value	–	Positive
Debt securities	1,543,490	Dividend discount model, Binomial model and Net asset value	Discount rate, Liquidating value, Underlying asset price and Volatility of underlying assets	Discount rate	4.86	Negative
				Liquidating value	–	Positive
				Volatility of underlying assets	23.74~33.77	Positive
Derivative assets held for trading	37,532	Hull-White two-factor model and Monte-Carlo Method	Discount rate, Stock index, Swap yield curve, Volatility of underlying assets, and Correlation within evaluation model and Exchange rate	Correlation between Interest rate swap ("IRS") rates, Correlation between Exchange rate and Stock index and Correlation between Stock index and Stock index	–14.50~83.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Discount rate	20.26	Negative
				Volatility of underlying assets	25.61~29.61	Positive
Private convertible bonds	7,599	Acquisition cost	–	–	–	–
Subtotal	1,623,354					
Financial assets at FVOCI						
Equity securities	497,976	Free cash flow to equity model, DCF model, Comparable Company Analysis and Net asset value	Growth rate, Discount rate, Liquidating value and Underlying asset price	Growth rate	0.00~0.50	Positive
				Discount rate	5.73~14.30	Negative
				Liquidating value	–	Positive
Total	2,121,330					
Financial liabilities						
Financial liabilities at FVTPL						
Derivative liabilities held for trading	35,701	Hull-White 2 factor model and Monte-Carlo Method	Stock index, Swap yield curve, Volatility of underlying assets and Correlation within evaluation model and Exchange rate	Correlation between IRS rates, Correlation between Exchange rate and Stock index and Correlation between Stock index and Stock index	–14.50~83.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Volatility of underlying assets	–	Positive
Derivative liabilities used for hedging	25,749	Hull-White 2 factor model	Swap yield curve, Swaption volatility and Correlation within evaluation model and Exchange rate	Correlation between IRS rates	66.00~98.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
Total	61,450					

December 31, 2023:

Classification	Fair value	Valuation techniques	Inputs	Significant unobservable inputs	Range (%)	The effect of changes in unobservable inputs on fair value
Financial assets						
Financial assets at FVTPL						
Equity securities	24,995	Third-party transaction	—	—	—	—
Debt securities	1,305,400	Dividend discount model, Binomial model and Net asset value	Discount rate, Liquidating value, Underlying asset price and Volatility of underlying assets	Discount rate	5.15	Negative
				Liquidating value	—	Positive
				Volatility of underlying assets	26.03~29.98	Positive
Derivative assets held for trading	36,561	Hull-White 2 factor model and Monte-Carlo Method	Discount rate, Stock index, Swap yield curve, Volatility of underlying assets, and Correlation within evaluation model and Exchange rate	Correlation between Interest rate swap rates, Correlation between Exchange rate and Stock index and Correlation between Stock index and Stock index	-24.00~78.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Discount rate	23.68	Negative
				Volatility of underlying assets	—	Positive
Private convertible bonds	7,447	Acquisition cost	—	—	—	—
Subtotal	1,374,403					
Financial assets at FVOCI						
Equity securities	490,578	Free cash flow to equity model, DCF model, Comparable Company Analysis and Net asset value	Growth rate, Discount rate, Liquidating value and Underlying asset price	Growth rate	—	Positive
				Discount rate	9.25~19.90	Negative
				Liquidating value	—	Positive
Total	1,864,981					
Financial liabilities						
Financial liabilities at FVTPL						
Derivative liabilities held for trading	38,565	Hull-White 2 factor model and Monte-Carlo Method	Stock index, Swap yield curve, Volatility of underlying assets and Correlation within evaluation model and Exchange rate	Correlation between Interest rate swap rates, Correlation between Exchange rate and Stock index, Correlation between Stock index and Stock index	-24.00~78.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Volatility of underlying assets	—	Positive
Derivative liabilities used for hedging	27,805	Hull-White 2 factor model	Swap yield curve, Swaption volatility and Correlation within evaluation model and Exchange rate	Correlation between Interest rate swap rates	60.00~97.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
Total	66,370					

4-2 Changes in the fair value hierarchy of financial instruments categorized as Level 3

Changes in the fair value hierarchy of financial assets and liabilities categorized as Level 3 that are measured at fair value in the interim consolidated financial statements for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification		Financial assets at FVTPL			Financial assets at FVOCI		Net derivative instruments	
		Equity securities	Debt securities	Private convertible bonds	Equity securities	Debt securities	Held for trading	Designated as hedging
Beginning balance		24,995	1,305,400	7,447	490,578	—	(2,004)	(27,805)
Total profit or loss	Profit or loss	372	42,732	—	—	—	(6,702)	2,056
	Other comprehensive income	—	788	151	(10,240)	—	—	—
Purchases and issues		10,625	366,468	1,000	17,720	—	3,225	—
Sales and settlements		(1,258)	(171,898)	(1,000)	(82)	—	7,312	—
Ending balance		34,734	1,543,490	7,598	497,976	—	1,831	(25,749)

For the nine-month period ended September 30, 2023:

Classification		Financial assets at FVTPL			Financial assets at FVOCI		Net derivative instruments	
		Equity securities	Debt securities	Private convertible bonds	Equity securities	Debt securities	Held for trading	Designated as hedging
Beginning balance		24,945	944,860	7,394	558,432	—	(22,588)	(30,838)
Transfers between fair value hierarchies (*)		(1,000)	—	—	—	—	—	—
Total profit or loss	Profit or loss	241	61,808	412	—	—	24,297	(7,524)
	Other comprehensive income	—	—	—	(22,419)	—	—	—
Purchases and issues		1,648	324,267	1,000	238	—	(2,597)	—
Sales and settlements		—	(79,220)	(1,082)	(45,314)	—	—	—
Ending balance		25,834	1,251,715	7,724	490,937	—	(888)	(38,362)

(*) Changes in the availability of observable market data for the financial instrument has resulted in a transfer between fair value hierarchies.

4-3 Amount recognized in profit or loss from changes in the fair value hierarchy of financial instruments categorized as Level 3

The amount recognized in profit or loss from changes in the fair value hierarchy of financial instruments categorized as Level 3 for the nine-month periods ended September 30, 2024 and 2023, is recorded in the interim consolidated financial statements as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Total gains or losses recognized in profit or loss	Profit or loss recognized related to financial instruments held at the end of reporting period
Gain on financial instruments at FVTPL	36,402	41,918
Loss related to derivative instruments used for hedging	2,056	2,056
Total	38,458	43,974

For the nine-month period ended September 30, 2023:

Classification	Total gains or losses recognized in profit or loss	Profit or loss recognized related to financial instruments held at the end of reporting period
Gain on financial instruments at FVTPL	86,758	33,285
Gain related to derivative instruments used for hedging	(7,524)	(7,524)
Total	79,234	25,761

4-4 Transfers between fair value hierarchies

The transfers out of Level 3 of the fair value hierarchy for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024	For the nine-month period ended September 30, 2023
The transfers out of Level 3 to Level 1	—	(1,000)

4-5 Sensitivity analysis

Sensitivity analysis of the financial instruments classified as Level 3 from the changes in significant unobservable inputs as of September 30, 2024, and December 31, 2023, is as follows. The impact of fair value fluctuations on profit or loss or other comprehensive income is divided into favorable and unfavorable changes. The financial instruments classified as Level 3, which were excluded from the sensitivity analysis as it is practically impossible, amount to ₩1,520,899 million and ₩1,343,558 million as of September 30, 2024, and December 31, 2023, respectively (KRW in millions):

September 30, 2024:

Classification	Favorable changes	Unfavorable changes
Financial assets		
Financial assets at FVTPL		
Equity securities (*2)	214	(92)
Debt securities (*3)	1,925	(1,813)
Derivative assets held for trading (*1)	317	(656)
Subtotal	2,456	(2,561)
Financial assets at FVOCI		
Equity securities (*2)	39,754	(18,333)
Total	42,210	(20,894)
Financial liabilities		
Derivative liabilities held for trading (*1)	443	(145)
Derivative liabilities used for hedging (*1)	227	(119)
Total	670	(264)

(*1) Unfavorable and favorable changes in fair value are calculated by increasing/decreasing 10% of 1) correlation between rates of Interest Rate Swap ("IRS") of KRW, 2) correlation between rates of IRS of KRW and USD, 3) correlation between stock index and individual stock and 4) correlation between exchange rates of KRW/USD and stock index.

(*2) Changes in fair value of equity securities are calculated by increasing/decreasing growth rate (0.0% ~ 1.0%) and discount rate, which are main unobservable inputs.

(*3) Changes in fair value of debt securities are calculated by increasing/decreasing discount rate (-1.0% ~ 1.0%), which is the main unobservable input. It

is impossible in practice to assess sensitivity based on the changes in input variables of beneficiary securities, but favorable or unfavorable changes in fair value, only limited to real estate, are calculated by changing discount rate of lease cash flow (−1.0%~1.0%) and growth rate of selling price of real estate (−1.0%~1.0%).

December 31, 2023:

Classification	Favorable changes	Unfavorable changes
Financial assets		
Financial assets at FVTPL		
Debt securities (*3)	1,419	(1,331)
Derivative assets held for trading (*1)	118	(164)
Subtotal	1,537	(1,495)
Financial assets at FVOCI		
Equity securities (*2)	19,012	(10,743)
Total	20,549	(12,238)
Financial liabilities		
Derivative liabilities held for trading (*1)	122	(98)
Derivative liabilities used for hedging (*1)	9	(23)
Total	131	(121)

(*1) Unfavorable and favorable changes in fair value are calculated by increasing/decreasing 10% of 1) correlation between rates of Interest Rate Swap of KRW, 2) correlation between rates of IRS of KRW and USD, 3) correlation between stock index and individual stock and 4) correlation between exchange rates of KRW/USD and stock index.

(*2) Changes in fair value of equity securities are calculated by increasing/decreasing growth rate (0.0%~1.0%) and discount rate, which are main unobservable inputs.

(*3) Changes in fair value of debt securities are calculated by increasing/decreasing discount rate (−1.0%~1.0%), which is the main unobservable input. It is impossible in practice to assess sensitivity based on the changes in input variables of beneficiary securities, but favorable or unfavorable changes in fair value, only limited to real estate, are calculated by changing discount rate of lease cash flow (−1.0%~1.0%) and growth rate of selling price of real estate (−1.0%~1.0%).

4-6 Financial assets and liabilities that are not measured at fair value

Fair value hierarchy of financial assets and liabilities at AC as of

September 30, 2024, and December 31, 2023, is as follows (KRW in millions):

September 30, 2024:

Classification	Levels of the fair value hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets				
Cash and due from banks	2,281,385	34,726,528	–	37,007,913
Securities at AC	3,224,181	31,447,252	–	34,671,433
Loans	–	–	364,761,811	364,761,811
Other financial assets	–	–	23,990,120	23,990,120
Total	5,505,566	66,173,780	388,751,931	460,431,277
Financial liabilities				
Deposits	–	52,203,894	328,263,078	380,466,972
Borrowings	–	1,212,065	21,854,679	23,066,744
Debentures	–	29,169,961	–	29,169,961
Other financial liabilities (*)	–	–	44,515,135	44,515,135
Merchant banking account liabilities	–	–	4,270,195	4,270,195
Total	–	82,585,920	398,903,087	481,489,007

(*) Lease liabilities are included in other financial liabilities.

December 31, 2023:

Classification	Levels of the fair value hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets				
Cash and due from banks	1,742,359	28,821,920	–	30,564,279
Securities at AC	3,196,264	32,286,860	–	35,483,124
Loans	–	–	347,002,271	347,002,271
Other financial assets	–	–	18,078,504	18,078,504
Total	4,938,623	61,108,780	365,080,775	431,128,178
Financial liabilities				
Deposits	–	47,761,947	321,968,921	369,730,868
Borrowings	–	934,111	21,031,181	21,965,292
Debentures	–	26,379,079	–	26,379,079
Other financial liabilities (*)	–	–	35,200,562	35,200,562
Merchant banking account liabilities	–	–	4,154,697	4,154,697
Total	–	75,075,137	382,355,361	457,430,498

(*) Lease liabilities are included in other financial liabilities.

Details of fair value, valuation technique and inputs used to develop those measurements classified into Level 2 financial assets and liabilities disclosed, but not measured at fair value as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Cash and due from banks	34,726,528	DCF model	Discount rate
Securities at AC	31,447,252	DCF model	Discount rate
Total	66,173,780		
Financial liabilities			
Deposits	52,203,894	DCF model	Discount rate
Borrowings	1,212,065	DCF model	Discount rate
Debentures (*1)	29,169,961	DCF model	Discount rate
Total	82,585,920		

December 31, 2023:

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Cash and due from banks	28,821,920	DCF model	Discount rate
Securities at AC	32,286,860	DCF model	Discount rate
Total	61,108,780		
Financial liabilities			
Deposits	47,761,947	DCF model	Discount rate
Borrowings	934,111	DCF model	Discount rate
Debentures	26,379,079	DCF model	Discount rate
Total	75,075,137		

Details of fair value, valuation technique and inputs used to develop those measurements classified into Level 3 financial assets and liabilities disclosed, but not measured at fair value as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Loans	364,761,811	DCF model	Credit spread, other spread and early redemption rate
Other financial assets	23,990,120	DCF model	Discount rate
Total	388,751,931		
Financial liabilities			
Deposits	328,263,078	DCF model	Other spread and early redemption rate
Borrowings	21,854,679	DCF model	Other spread
Other financial liabilities (*1)	44,515,135	DCF model	Discount rate
Merchant banking account liabilities	4,270,195	(*2)	
Total	398,903,087		

(*1) Lease liabilities are included in other financial liabilities.

(*2) The carrying amount is considered fair value without applying the DCF model because it is derived from various transactions and has relatively short or indefinite maturities.

December 31, 2023:

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Loans	347,002,271	DCF model	Credit spread, other spread and early redemption rate
Other financial assets	18,078,504	DCF model	Discount rate
Total	365,080,775		
Financial liabilities			
Deposits	321,968,921	DCF model	Other spread and early redemption rate
Borrowings	21,031,181	DCF model	Other spread
Other financial liabilities (*1)	35,200,562	DCF model	Discount rate
Merchant banking account liabilities	4,154,697	(*2)	
Total	382,355,361		

(*1) Lease liabilities are included in other financial liabilities.

(*2) The carrying amount is considered fair value without applying the DCF model because it is derived from various transactions and has relatively short or indefinite maturities.

4-7 Gain and loss on deferred Day 1

Changes in gain (loss) on deferred Day 1 for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024	For the nine-month period ended September 30, 2023
Beginning balance	(1,461)	(2,130)
Amount of new accrual	449	(2,596)
Amounts recognized as current profit or loss	764	2,727
Ending balance	(248)	(1,999)

4-8 Financial instruments transfer transaction

4-8-1 Bonds sold under repurchase agreements

As of September 30, 2024, and December 31, 2023, details of financial instruments that did not meet the derecognition requirements due to the sale of securities held by the Group on condition of repurchase at a fixed price during the bonds sold under repurchase agreements are as follows (KRW in millions):

Classification	September 30, 2024		December 31, 2023	
	Book value	Fair value	Book value	Fair value
Transferred asset sets				
Financial assets at FVOCI	541,454	541,454	532,760	532,760
Financial assets at AC	800,749	782,296	801,692	770,167
Total	1,342,203	1,323,750	1,334,452	1,302,927
Related liabilities				
Bonds sold under repurchase agreements	1,210,992	1,220,279	1,140,937	1,119,671

4-8-2 Loaned securities

When lending securities held by the Group, ownership of the securities is transferred; however, the securities would be returned at the end of the rental period. Therefore, the Group continues to recognize the entire loaned securities as it retains most of the risks and rewards of the securities. Details of loaned securities as of the end of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024		December 31, 2023	
	Book value	Fair value	Book value	Fair value
Financial assets at FVTPL	97,856	97,856	9,936	9,936
Financial assets at FVOCI	1,266,580	1,266,580	1,051,270	1,051,270
Financial assets at AC	193,618	188,524	194,312	188,457
Total	1,558,054	1,552,960	1,255,518	1,249,663

4-8-3 Asset-backed securitization

The Group's consolidated structured companies issued asset-backed securities by securitizing their securities and loans. The Group retains the contractual right to receive cash flows from the financial assets, but the received cash flows are effectively transferred to the holder of asset-backed securities. In addition, the Group bears related risks through purchase agreements or credit exposures.

As of the end of September 30, 2024, and December 31, 2023, details of financial instruments that were transferred, but not derecognized in relation to asset-backed securitization transactions by the Group, are as follows (KRW in millions):

Classification		September 30, 2024	December 31, 2023
		Book value(*)	Book value(*)
Transferred asset sets	Financial assets at FVTPL	35,000	40,000
	Loans at AC	2,388,189	2,482,508
	Total	2,423,189	2,522,508
Related liabilities	Asset-backed securitization borrowing	2,434,981	2,537,828

(*) Carrying amount is before allowances for doubtful debts.

5. FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES:

Book values and fair values of financial assets and liabilities as of September 30, 2024,

and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024		December 31, 2023	
	Book value	Fair value	Book value	Fair value
Financial assets				
Cash and due from banks	37,007,913	37,007,913	30,564,279	30,564,279
Financial assets at FVTPL	21,083,325	21,083,325	17,514,876	17,514,876
Financial assets at FVOCI	31,417,857	31,417,857	36,894,111	36,894,111
Securities at AC	35,077,709	34,671,433	36,337,949	35,483,124
Loans	363,074,437	364,761,811	347,246,910	347,002,271
Derivative assets used for hedging	36,338	36,338	1,723	1,723
Other financial assets	23,990,358	23,990,120	18,078,742	18,078,504
Merchant banking account assets	4,107,786	4,107,786	4,637,824	4,637,824
Total	515,795,723	517,076,583	491,276,414	490,176,712
Financial liabilities				
Financial liabilities at FVTPL	6,392,993	6,392,993	6,729,210	6,729,210
Deposits	380,525,552	380,466,972	369,749,453	369,730,868
Borrowings	23,048,605	23,066,744	22,033,914	21,965,292
Debentures	29,171,117	29,169,961	26,542,179	26,379,079
Derivative liabilities used for hedging	285,351	285,351	390,979	390,979
Other financial liabilities (*)	44,515,135	44,515,135	35,200,562	35,200,562
Merchant banking account liabilities	4,270,195	4,270,195	4,154,697	4,154,697
Total	488,208,948	488,167,351	464,800,994	464,550,687

(*) Lease liabilities are included in other financial liabilities.

The following standards are applied in measuring the fair value of financial instruments:

- a. Loans: Expected cash flows, current market interest rates and discount rates, including borrowers' credit risks are factors to calculate the fair value of loans. For lines of credit available for deposit and withdrawal from time to time and loans with a short-term maturity (less than three months), it is assumed that the carrying amounts approximate their fair value.
- b. Securities at AC: The fair value of securities at AC is as stated by the market, broker or by credible sources. If none of the information from these entities is usable, quoted market price of financial instruments with similar credit rating, maturity and return on investment is used to estimate the fair value.
- c. Deposits: For deposits without an explicit maturity period, including deposits with no interests, deposits that have a short-term maturity (less than three months) and deposits with a floating-rate readjustment period of less than three months, it is assumed that the carrying amounts approximate their fair value. The estimated fair value of fixed interest-bearing deposits is based on discounted future cash flows using interest rates for new financial liability with similar time to maturity.
- d. Borrowings: For borrowings that have a short-term maturity (less than three months) and borrowings with floating-rate readjustment period of less than three months, it is assumed that the carrying amounts approximate their fair value. The estimated fair value of fixed interest-bearing borrowings is based on discounted future cash flows using interest rates for new financial liability with similar time to maturity.
- e. Debentures: For debentures issued, the fair values are determined based on quoted market prices in active market. For those issued where quoted market prices in active market are not available, a DCF model is used based on a current interest rate yield curve appropriate for the remaining term to maturity and credit spreads.

6. CATEGORIES OF FINANCIAL ASSETS AND FINANCIAL LIABILITIES:

6-1 The Group categorizes its financial assets as of September 30, 2024, and December 31, 2023, as follows (KRW in millions):

September 30, 2024:

Classification	Financial assets at FVTPL	Financial assets at FVOCI	Financial assets at AC	Derivatives used for hedging	Total
Cash and due from banks	–	–	37,007,913	–	37,007,913
Financial assets at FVTPL	21,083,325	–	–	–	21,083,325
Financial assets at FVOCI	–	31,417,857	–	–	31,417,857
Securities at AC	–	–	35,077,709	–	35,077,709
Loans	–	–	363,074,437	–	363,074,437
Derivative assets used for hedging	–	–	–	36,338	36,338
Other financial assets	–	–	23,990,358	–	23,990,358
Merchant banking account assets	4,107,786	–	–	–	4,107,786
Total	25,191,111	31,417,857	459,150,417	36,338	515,795,723

December 31, 2023:

Classification	Financial assets at FVTPL	Financial assets at FVOCI	Financial assets at AC	Derivatives used for hedging	Total
Cash and due from banks	–	–	30,564,279	–	30,564,279
Financial assets at FVTPL	17,514,876	–	–	–	17,514,876
Financial assets at FVOCI	–	36,894,111	–	–	36,894,111
Securities at AC	–	–	36,337,949	–	36,337,949
Loans	–	–	347,246,910	–	347,246,910
Derivative assets used for hedging	–	–	–	1,723	1,723
Other financial assets	–	–	18,078,742	–	18,078,742
Merchant banking account assets	4,637,824	–	–	–	4,637,824
Total	22,152,700	36,894,111	432,227,880	1,723	491,276,414

6-2 The Group categorizes its financial liabilities as of September 30, 2024, and December 31, 2023, as follows (KRW in millions):

September 30, 2024:

Classification	Financial liabilities at FVTPL	Financial liabilities designated as measured at FVTPL	Financial liabilities at AC	Derivatives used for hedging	Total
Financial liabilities at FVTPL	5,961,546	431,447	–	–	6,392,993
Deposits	–	–	380,525,552	–	380,525,552
Borrowings	–	–	23,048,605	–	23,048,605
Debentures	–	–	29,171,117	–	29,171,117
Derivative liabilities used for hedging	–	–	–	285,351	285,351
Other financial liabilities (*)	–	–	44,515,135	–	44,515,135
Merchant banking account liabilities	–	–	4,270,195	–	4,270,195
Total	5,961,546	431,447	481,530,604	285,351	488,208,948

(*) Lease liabilities are included in other financial liabilities.

December 31, 2023:

Classification	Financial liabilities at FVTPL	Financial liabilities designated as measured at FVTPL	Financial liabilities at AC	Derivatives used for hedging	Total
Financial liabilities at FVTPL	6,494,492	234,718	–	–	6,729,210
Deposits	–	–	369,749,453	–	369,749,453
Borrowings	–	–	22,033,914	–	22,033,914
Debentures	–	–	26,542,179	–	26,542,179
Derivative liabilities used for hedging	–	–	–	390,979	390,979
Other financial liabilities (*)	–	–	35,200,562	–	35,200,562
Merchant banking account liabilities	–	–	4,154,697	–	4,154,697
Total	6,494,492	234,718	457,680,805	390,979	464,800,994

(*) Lease liabilities are included in other financial liabilities.

7. OFFSETTING FINANCIAL ASSETS AND LIABILITIES:

The Group engages in master netting agreements with counterparties through International Swaps and Derivatives Association or similar agreements in relation to over-the-counter derivatives and spot exchange transactions. Under this agreement, in the event of the counterparty's bankruptcy, etc., the transaction with the counterparty will be terminated. Upon termination, the amounts to be paid or received by each party are offset and paid or received. Repurchase agreements of trade and securities lending and borrowing of securities have been made by offsetting arrangement, which is similar to the arrangement for derivatives.

In the case of uncollected domestic exchange bonds and unpaid domestic exchange obligations between banks, as the Group holds the rights of setoff and settles in net amounts, the net amounts are presented in the interim consolidated statements of financial position. Other financial instruments include bonds and debts related to securities traded in the market, which are presented in net amounts in the interim consolidated statements of financial position as there is a legally enforceable right of setoff and intention to settle on a net basis.

7-1 Financial assets offset, the executable master netting agreement and financial assets subject to a similar arrangement as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Gross amounts of recognized financial assets	Gross amounts of financial liabilities offset	Net amounts of financial assets presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	5,713,191	–	5,713,191	(4,087,721)	(258,270)	1,367,200
Loaned securities	1,558,054	–	1,558,054	(1,552,907)	–	5,147
Bonds purchased under repurchase agreements	13,876,787	–	13,876,787	(13,876,784)	–	3
Spot exchange that has not been received or settled	17,048,004	–	17,048,004	(17,007,421)	–	40,583
Uncollected domestic exchange bonds	34,224,005	32,272,852	1,951,153	–	–	1,951,153
Other accounts receivable	63,879	38,699	25,180	–	–	25,180
Total	72,483,920	32,311,551	40,172,369	(36,524,833)	(258,270)	3,389,266

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the interim consolidated statements of financial position as they do not meet the criteria for offsetting.

December 31, 2023:

Classification	Gross amounts of recognized financial assets	Gross amounts of financial liabilities offset	Net amounts of financial assets presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	5,980,051	–	5,980,051	(4,635,080)	(361,195)	983,776
Loaned securities	1,255,518	–	1,255,518	(1,249,663)	–	5,855
Bonds purchased under repurchase agreements	13,754,130	–	13,754,130	(13,752,531)	–	1,599
Spot exchange that has not been received or settled	10,461,073	–	10,461,073	(10,455,094)	–	5,979
Uncollected domestic exchange bonds	40,928,696	36,735,331	4,193,365	–	–	4,193,365
Other accounts receivable	18,529	16,279	2,250	–	–	2,250
Total	72,397,997	36,751,610	35,646,387	(30,092,368)	(361,195)	5,192,824

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the interim consolidated statements of financial position as they do not meet the criteria for offsetting.

7-2 Financial liabilities offset, the executable master netting agreement and financial liabilities subject to a similar arrangement as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Gross amounts of recognized financial liabilities	Gross amounts of financial assets offset	Net amounts of financial liabilities presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	5,888,445	–	5,888,445	(4,610,565)	(189,744)	1,088,136
Borrowed securities	358,452	–	358,452	(358,452)	–	–
Bonds sold under repurchase agreements	1,210,992	–	1,210,992	(1,167,659)	–	43,333
Spot ex change that has not been received or settled	17,039,836	–	17,039,836	(17,007,395)	–	32,441
Unpaid domestic exchange obligations	38,494,436	32,272,853	6,221,583	–	–	6,221,583
Other accounts payable	46,852	38,699	8,153	–	–	8,153
Total	63,039,013	32,311,552	30,727,461	(23,144,071)	(189,744)	7,393,646

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the interim consolidated statements of financial position as they do not meet the criteria for offsetting.

December 31, 2023:

Classification	Gross amounts of recognized financial liabilities	Gross amounts of financial assets offset	Net amounts of financial liabilities presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	6,433,045	–	6,433,045	(5,044,895)	(251,013)	1,137,137
Borrowed securities	452,426	–	452,426	(452,426)	–	–
Bonds sold under repurchase agreements	1,140,937	–	1,140,937	(1,140,937)	–	–
Spot ex change that has not been received or settled	10,463,019	–	10,463,019	(10,455,077)	–	7,942
Unpaid domestic exchange obligations	43,807,222	36,735,331	7,071,891	–	–	7,071,891
Other accounts payable	17,993	16,279	1,714	–	–	1,714
Total	62,314,642	36,751,610	25,563,032	(17,093,335)	(251,013)	8,218,684

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the consolidated statements of financial position as they do not meet the criteria for offsetting.

8. RISK MANAGEMENT:

The Group is exposed to credit risk, liquidity risk, market risk and various operating risks. The objectives of risk management are to pursue economic benefits by managing the associated risk in the changing financial environment and to utilize capital efficiently.

The basic principles of risk management are as follows:

- a. Minimize the rapid fluctuation in profit by balancing the risks and the income.
- b. Maximize long-term shareholders' value.
- c. Comply with procedures to ensure operating activities are confined to allowable risk limits.
- d. Examine the type and size of risk along with the changes in potential economic value of portfolios and establish risk management strategy in order to utilize assets and distribute capital efficiently.

The basic policies in order to realize the basic principles of risk management are as follows:

- a. Set and comply with allowable limits for each risk type.
- b. Establish an appropriate balance between income and associated risk.
- c. When a conflict between income and associated risk exists, the Group pursues income while complying with the allowable risk limits.
- d. Prioritize the distribution of risk in order to avoid risk concentration in certain areas.
- e. Analyze the effect of various market fluctuations on parts or the entire portfolio on a regular basis.
- f. Separate risk management segments, operational segments and other segments, which deal with trade confirmations and payments in order to maintain independence.

8-1 Strategy and procedure of risk management

8-1-1 Operation of and setting risk limits

The Group established and operates a limit management system to maintain the appropriate level of risk relative to the equity capital held. The Risk Management Committee approves total risk limits and limits by types of risks, taking into account of capital, business plans, risk management regulations and institutional changes within the risk level that the Group can manage. The Risk Management Operation Committee sets up and allocates other operational limits (e.g., by organization, product, investment and loss) to comply with allowable limits for each type of risk, approved by the Risk Management Committee, and periodically checks the status of limit management.

8-1-2 Risk measurement and management

The Group prepares the appropriate risk measurement methods considering the nature of risks and measures them by the types of risks. Risk measurement and evaluation results are regularly reviewed and reported to the Risk Management Committee, Risk Management Operation Committee and management. Risk measurement and evaluation results are also used for daily business management activities, such as establishment of business plan and management strategy.

8-1-3 Operation of risk management information system

In order to provide advanced risk management in a rapidly changing financial environment that meets the new Bank for International Settlements ("BIS") standards, the Group has established and adopted a credit risk-weighted assets ("RWA") calculation system based on Basel 3 regulation since March 2021. The market/operational RWA is calculated based on Basel 3 standard model since January 2023.

8-1-4 Operation of crisis management system

The Group operates a crisis management system that can respond effectively to the crisis caused by drastic changes in the internal and external management environment. The Group operates an early warning system in order to respond to the drastic changes in the financial market in a consistent and systematic manner. In the event of an anomaly, the holding company declares the level of crisis at the group level and the Group analyzes the impact on the portfolio in accordance with the step-by-step response plan and carries out the specific countermeasures.

8-2 Organization and structure of risk management

The risk management organization consists of the Risk Management Committee, the Risk Management Operation Committee under the Risk Management Committee within the board of directors, the risk management officer and the organization in charge of risk management, which are the top decision-making bodies for the risk management. The organization in charge of risk management, independent from operating segment, manages risk limits and risk management policies.

8-2-1 Risk Management Committee

The Risk Management Committee regularly holds meeting once every quarter and resolves the establishment and management of allowable limits for risks, establishment and changes in risk management policies and reviews the results of the management of allowable risk limits and suitability tests of risk management system.

8-2-2 Risk Management Operation Committee

The Risk Management Operation Committee is responsible for setting and allocating specific operational limits for compliance with the allowable limits for each type of risk as resolved by the Risk Management Committee, adjusting the internal capital limit between business units within the same risk type and carrying out risk management policies and strategies set by the Risk

Management Committee, including preliminary deliberations on the agenda items.

8-2-3 Organization in charge of risk management

The Risk Management Group is composed of Comprehensive Risk Management team, Credit Risk Management team and Credit Supervision team. The Risk Management Group is independent of operating and investment segments and manages the execution of risk management policies. The Comprehensive Risk Management team oversees the market, interest rate, liquidity, operational risk and middle office and supports the Risk Management Committee and the Risk Management Operation Committee. The Credit Risk Management team oversees credit risk and credit concentration risk. The Credit Supervision team oversees the loans and early warning system.

8-3 Credit risk

Credit risk is a risk incurred when the Group faces a loss because its customers or counterparties fail to discharge their contractual obligations. Credit risk arises from on-balance and off-balance accounts, including loans, derivatives, securities, financial guarantee agreements and other guarantees.

8-3-1 Management of credit risk

8-3-1-1 Loans

8-3-1-1-1 Measurement of credit risk

To determine the possibility of bankruptcy for its customers or counterparties, the Group uses various methods comprehensively. Risks pertaining to the retail sector compared to those pertaining to the corporate sector are relatively easy to predict, but cyclical and seasonal factors may influence the outcomes.

The frequency of impairment loss in the overall retail sector is relatively high, but in terms of individual cases, the loss rate is lower than in the corporate sector. Based on these differences, the Group manages each sector differently in terms of credit rating, pricing and subsequent management.

As for the business customers, the branch managers and Credit Rating team carryout the credit risk assessment by using a detailed valuation model depending on the size and the nature of the industry. The corporate financial valuation model is further subdivided based on the characteristics of the loans and is a combination of statistical and expert valuation models. Also, the Loan Review team of the credit risk management regularly performs the subsequent reviews in order to establish adequacy of the credit grading. As for the retail sector, a credit scoring system is used to compute the credit scores of the borrower. The system includes an application scoring model, which is used for the application of loans and a behavioral scoring model, which has been used after handling the loans.

Expected loss is calculated using the expected default rate based upon the historical default rate and the estimated loss rate gives a rise to the default rate from a collection of historical information. A measured expected loss is reflected on the client's interest rate and allowances when applying for or renewing a loan. Unexpected loss, which takes into account the allowance for potential volatility in the actual loss compared to the expected loss, is measured using K-function of the Basel 3 internal rating method. The value measured is used as a credit risk reference value in capital allocation and is reflected as a part of the unexpected loss when calculating interest rates.

8-3-1-1-2 Management of credit risk

8-3-1-1-2-1 Management process

Both retail and corporate sectors are developing and operating a credit risk management system appropriately designed for each sector. The Credit Risk Management Committee and the Credit Rating team measure and manage credit risks for the corporate sector; Credit Risk Management Committee and Personal Loans Committee measure and manage credit risks for the retail sector.

The Group manages, as well as controls the credit risk by setting the limits on the amount of risk willing to accept for individual counterparties and for geographical and industry concentration, and by monitoring exposures relating to such limits. The Group reviews on a monthly basis in accordance with the economic conditions and industry characteristics and examines the adequacy of the limits on a quarterly basis. The Group continuously examines the adequacy of credit rating models for retail and corporate sectors, PD, LGD and Exposure At Default("EAD") and manages data related to the estimation of the credit rating models, PD, LGD and EAD.

8-3-1-1-2-2 Credit limits management and capital allocation

The Group annually performs a comprehensive analysis on economic conditions and changes in the economic environment in order to appropriately assess the credit quality of financial assets by setting credit limits on same entities, industries, countries and financial instruments. In addition, for the unexpected loss management, the Group regularly sets, distributes and checks for the compliance maintenance of internal capital limits according to the corporate and household sectors and the size of clients through the risk management system.

8-3-1-1-2-3 Risk monitoring and early warning system

The Group measures and manages the risk indicators, such as delinquency rate, rollrate and vintage. Also, in order to assess the credit quality of the assets, the Group operates an early warning system and regularly examines companies whose credit rating is likely to degrade.

8-3-1-1-2-4 Credit rating system

In order to separately evaluate the characteristics of clients in the corporate sector, the Group operates a detailed valuation model based on the external and non-external audit and is in the process of continuing the stability of the corporate credit rating system through the subsequent examinations and performance improvements. The Group operates a detailed valuation model based on the credit rating model and the activity rating model for the household sector in accordance with the client's characteristics. The Group improves the efficiency of the model through the subsequent examinations and performance improvements. Credit rating on new clients, as well as an automatic renewal and adjustments to the credit limits are managed by the household and Small Office and Home Office ("SOHO") credit extension system.

8-3-1-1-2-5 Examination of credit

For a large amount of credit line, after the approval of credit extension, the Group regularly examines the borrower's credit status and the adequacy of the borrower's credit rating as in part of the subsequent management process. In addition, the Group significantly focuses on industries by increasing credit risks based on the analysis of the risk indicators and examines the sample for smaller credit extensions.

8-3-1-1-2-6 Risk mitigation policy

The Group obtains the collateral for the granted loans in order to reduce risks. Guidelines are implemented regarding the acceptability of types of collateral and valuation parameters. The main types of the collateral obtained are as follows:

- a. Residential properties in relation to mortgage loans
- b. Business assets, such as equipment, plants and real estate properties
- c. Financial instruments, such as deposits, debt and equity securities

8-3-1-2 Debt securities

The Group trades the debt securities above the investment-grade status level in order to manage the credit risks and manage the exposure of credit ratings to maintain credit quality of the assets.

8-3-1-3 Derivative instruments

The credit risk arising from the derivative instruments is managed based on the net position and maintained under a strict control limit. The degree of credit risk exposure is measured based on the positive fair values of derivative instruments. The Group manages the exposure as a part of the unused commitment of loans.

8-3-2 Significant increase in credit risk

The Group measures the ECL for debt instruments at AC or FVOCI in three stages as described below.

8-3-2-1 Stage 1: Twelve-month ECL

For financial assets, whose credit risk has not increased significantly since initial recognition, ECLs that result from default events that are possible within 12 months after the reporting date are recognized.

8-3-2-2 Stage 2: Lifetime ECL

For financial assets, whose credit risk has increased significantly, but not impaired, since initial recognition, ECLs that result from all possible default events over the expected life of the financial instrument are recognized.

8-3-2-3 Stage 3: Lifetime ECL

A financial asset is credit impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Lifetime ECL is recognized for credit-impaired financial assets and interest income is recognized using the EIR on AC.

The Group assesses, at each reporting date, whether the credit risk increases significantly compared to that of initial recognition, using internal and external credit rating information, early warning system and number of days past due.

8-3-2-4 Occurrence of default

The Group considers that a default has occurred for financial assets on the following situations:

- a. When receivables are sold despite an economic loss.
- b. When receivables have decreased due to adjustments resulting in an exemption of principal, interest or related fees or delayed payments.
- c. When the borrower has been declared bankrupt or has declared bankruptcy or has taken other similar measures to delay or avoid repayments.

8-3-2-5 Method for determining whether a financial asset is credit impaired

A financial asset is deemed impaired if, and only if, there is an objective evidence of impairment as a result of one or more events, which have occurred after the initial recognition of the item (an incurred 'loss event') and that loss event (or events) has an impact on the estimated future cash flows, such as changes in arrears or economic conditions, which correlate with defaults, delinquency in interest for more than 90 days, credit information management rules and damages incurred due to poor exposure.

8-3-3 Measurement of ECL

ECL is measured at the probability-weighted amounts of the present value of all cash shortfalls over the expected life of the financial instrument. A cash shortfall is the difference between the cash flows that are due to an entity in accordance with the contract and the cash flows that the Group expects to receive.

However, the Group adjusts historical data, such as credit loss experience, on the basis of current observable data to reflect the effects of the current conditions and its forecasts of future conditions that did not affect the period on which the historical data is based and to remove the effects of the conditions in the historical period that are not relevant to the future contractual cash flows. Also, the Group measures ECL using the macroeconomic factors, such as the growth rate, interest rate and stock indices. The methodology for future economic forecasts is regularly reviewed.

If the credit risk on financial instruments, for which lifetime ECLs have been recognized, subsequently improves so that the requirement for recognizing lifetime ECL is no longer met, the loss allowance should be measured at an amount equal to 12-month ECL.

8-3-4 Write-off policy

Financial assets are written off when an entity has no reasonable expectations of recovering the contractual cash flows on a financial asset in its entirety or a portion thereof. Generally, financial assets are written off when it is determined that the Group is not able to generate sufficient cash flows to make repayments. However, financial assets written off can be recovered by the Group.

8-3-5 The maximum exposure to credit risk

The maximum exposure to credit risk as of September 30, 2024, and December 31, 2023, is as follows. The following table shows the maximum exposure to credit risk before the effect of mitigation through credit enhancement and collateral agreements and reflects the impairment losses and offsetting. Equity securities in financial assets at FVTPL and financial assets at FVOCI are excluded (KRW in millions).

Classification	September 30, 2024	December 31, 2023
On-balance-sheet items		
Due from banks	34,726,528	28,821,920
Financial assets at FVTPL		
Debt securities	15,328,382	11,442,332
Derivative assets held for trading	5,663,535	5,965,872
Private convertible bonds	7,598	7,447
Subtotal	20,999,515	17,415,651
Financial assets at FVOCI	30,730,604	36,243,645
Securities at AC	35,077,709	36,337,949
Derivative assets used for hedging	36,338	1,723
Loans	363,074,437	347,246,910
Other financial assets	23,990,358	18,078,742
Merchant banking account assets	4,107,786	4,637,824
Total	512,743,275	488,784,364
Off-balance-sheet items		
Financial guarantee contracts	419,639	498,156
Payment guarantee	25,009,821	23,535,495
Commitments	114,907,026	109,725,839
Merchant banking account-commitment	660,000	770,000
Total	140,996,486	134,529,490

8-3-6 Details of effects of credit risk mitigation by collateral and other credit enhancements

The financial effects related to credit risk mitigated by collateral and other credit enhancements as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Impaired loan	
	Individual assessment	Collective assessment
Guarantees	57,435	349,059
Deposits	3,031	17,853
Real estates	207,328	443,987
Securities	–	2
Others	7,981	13,575
Total	275,775	824,476

December 31, 2023:

Classification	Impaired loan	
	Individual assessment	Collective assessment
Guarantees	16,627	311,605
Deposits	–	18,575
Real estates	213,417	338,703
Securities	–	1
Others	5,847	6,395
Total	235,891	675,279

8-3-6-1 The amount of financial assets for which loss allowance is not recognized due to sufficient collaterals is ₩1,094,616 million and ₩1,125,587 million as of September 30, 2024, and December 31, 2023, respectively.

8-3-6-2 There is no change in the collateral policy of the Group.

8-3-7 Credit risk exposure

8-3-7-1 Loans

As of September 30, 2024, and December 31, 2023, gross carrying amounts of loans by internal credit rating in accordance with the loss allowance measurement method are as follows (KRW in millions):

September 30, 2024:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit- impaired loans	Credit-impaired loans	
Household loans				
Grade 1	105,020,209	12,005,157	–	117,025,366
Grade 2	12,508,423	6,226,233	–	18,734,656
Grade 3	125,595	429,220	505,625	1,060,440
Subtotal	117,654,227	18,660,610	505,625	136,820,462
Corporate loans				
Grade 1	129,385,422	3,684,243	–	133,069,665
Grade 2	72,882,914	16,072,139	–	88,955,053
Grade 3	634,671	4,115,572	1,035,536	5,785,779
Subtotal	202,903,007	23,871,954	1,035,536	227,810,497
Total	320,557,234	42,532,564	1,541,161	364,630,959

December 31, 2023:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired loans	Credit-impaired loans	
Household loans				
Grade 1	94,064,000	15,117,696	–	109,181,696
Grade 2	14,459,631	7,085,140	–	21,544,771
Grade 3	196,069	550,945	452,308	1,199,322
Subtotal	108,719,700	22,753,781	452,308	131,925,789
Corporate loans				
Grade 1	124,593,684	3,608,602	–	128,202,286
Grade 2	70,465,513	13,259,903	–	83,725,416
Grade 3	580,691	3,596,942	877,162	5,054,795
Subtotal	195,639,888	20,465,447	877,162	216,982,497
Total	304,359,588	43,219,228	1,329,470	348,908,286

Net deferred origination fees and costs are not reflected in the gross carrying amounts above.

The Group categorizes loans based on the nature of the borrowers as follows:

September 30, 2024:

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.66% of PD	Less than or equal to 1.18% of PD	Less than or equal to 7.25% of PD
Grade 2	From 0.66% to 30.53% of PD	From 1.18% to 13.87% of PD	From 7.25% to 41.35% of PD
Grade 3	From 30.53% to 100% of PD	From 13.87% to 100% of PD	From 41.35% to 100% of PD

December 31, 2023:

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.66% of PD	Less than or equal to 1.18% of PD	Less than or equal to 7.25% of PD
Grade 2	From 0.66% to 30.53% of PD	From 1.18% to 13.87% of PD	From 7.25% to 41.35% of PD
Grade 3	From 30.53% to 100% of PD	From 13.87% to 100% of PD	From 41.35% to 100% of PD

8-3-7-2 Off-balance-sheet items

As of September 30, 2024, and December 31, 2023, exposures of off-balance-sheet items by internal credit rating in accordance with the loss allowance measurement method are as follows (KRW in millions):

September 30, 2024:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired off-balance-sheet items	Credit-impaired off-balance-sheet items	
Financial guarantee contracts				
Grade 1	265,084	59,973	–	325,057
Grade 2	68,476	23,875	–	92,351
Grade 3	1,720	511	–	2,231
Subtotal	335,280	84,359	–	419,639
Payment guarantees				
Grade 1	18,549,098	1,650,247	–	20,199,345
Grade 2	3,633,042	446,554	–	4,079,596
Grade 3	364,195	244,907	121,778	730,880
Subtotal	22,546,335	2,341,708	121,778	25,009,821
Commitments				
Grade 1	91,303,119	4,157,633	–	95,460,752
Grade 2	15,007,798	3,420,860	–	18,428,658
Grade 3	667,813	217,115	132,688	1,017,616
Subtotal	106,978,730	7,795,608	132,688	114,907,026
Merchant banking account-commitment				
Grade 1	660,000	–	–	660,000
Grade 2	–	–	–	–
Grade 3	–	–	–	–
Subtotal	660,000	–	–	660,000
Total	130,520,345	10,221,675	254,466	140,996,486

December 31, 2023:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired off-balance-sheet items	Credit-impaired off-balance-sheet items	
Financial guarantee contracts				
Grade 1	345,454	63,332	–	408,786
Grade 2	61,864	25,362	–	87,226
Grade 3	1,859	285	–	2,144
Subtotal	409,177	88,979	–	498,156
Payment guarantees				
Grade 1	16,929,448	1,584,647	–	18,514,095
Grade 2	3,627,124	714,993	–	4,342,117
Grade 3	187,867	450,006	41,410	679,283
Subtotal	20,744,439	2,749,646	41,410	23,535,495
Commitments				
Grade 1	87,217,921	4,023,271	–	91,241,192
Grade 2	14,144,413	3,585,035	–	17,729,448
Grade 3	229,028	472,761	53,410	755,199
Subtotal	101,591,362	8,081,067	53,410	109,725,839
Merchant banking account-commitment				
Grade 1	770,000	–	–	770,000
Grade 2	–	–	–	–
Grade 3	–	–	–	–
Subtotal	770,000	–	–	770,000
Total	123,514,978	10,919,692	94,820	134,529,490

The Group categorizes off-balance-sheet items based on the nature of the borrowers as follows:

September 30, 2024:

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.66% of PD	Less than or equal to 1.18% of PD	Less than or equal to 7.25% of PD
Grade 2	From 0.66% to 30.53% of PD	From 1.18% to 13.87% of PD	From 7.25% to 41.35% of PD
Grade 3	From 30.53% to 100% of PD	From 13.87% to 100% of PD	From 41.35% to 100% of PD

December 31, 2023:

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.66% of PD	Less than or equal to 1.18% of PD	Less than or equal to 7.25% of PD
Grade 2	From 0.66% to 30.53% of PD	From 1.18% to 13.87% of PD	From 7.25% to 41.35% of PD
Grade 3	From 30.53% to 100% of PD	From 13.87% to 100% of PD	From 41.35% to 100% of PD

8-3-7-3 Debt securities

As of September 30, 2024, and December 31, 2023, gross carrying amounts of debt securities by internal credit rating in accordance with the loss allowance measurement method are as follows (KRW in millions):

September 30, 2024:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt	Credit-impaired debt	
Securities at AC				
Grade 1	35,048,472	—	—	35,048,472
Grade 2	25,001	—	—	25,001
Grade 3	—	25,346	—	25,346
Subtotal	35,073,473	25,346	—	35,098,819
Financial assets at FVOCI				
Grade 1	30,730,604	—	—	30,730,604
Grade 2	—	—	—	—
Grade 3	—	—	—	—
Subtotal	30,730,604	—	—	30,730,604
Total	65,804,077	25,346	—	65,829,423

December 31, 2023:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt	Credit-impaired debt	
Securities at AC				
Grade 1	36,240,105	–	–	36,240,105
Grade 2	93,080	–	–	93,080
Grade 3	–	24,425	–	24,425
Subtotal	36,333,185	24,425	–	36,357,610
Financial assets at FVOCI				
Grade 1	36,243,645	–	–	36,243,645
Grade 2	–	–	–	–
Grade 3	–	–	–	–
Subtotal	36,243,645	–	–	36,243,645
Total	72,576,830	24,425	–	72,601,255

The credit ratings of debt securities based on the internal rating used by the Group and the credit ratings by external credit rating agencies are as follows:

Classification	Internal credit rating	Domestic rating agencies	Overseas rating agencies	
			Moody's	Fitch
Grade 1	A1 ~ A7	AAA ~ BBB	Aaa ~ Ba2	AAA ~ BB
Grade 2	B1 ~ B6	BBB- ~ BB-	Ba3 ~ B3	BB- ~ B-
Grade 3	C1 ~ C3	B+ ~ CCC	Caa1 ~ C	CCC+ ~ C

8-3-8 Credit risk concentration

8-3-8-1 Credit risk concentration in each major industry as of September 30, 2024 and December 31, 2023, is as follows (KRW in millions):

September 30, 2024:

Classification	Industry	Amounts	Ratio (%)
On-balance-sheet items			
Due from banks	Financial services	34,726,528	100.0
Financial assets at FVTPL	Financial services	13,133,577	62.5
	Manufacturing	641,877	3.1
	Public administration	6,713,805	32.0
	Construction	11,994	0.1
	Wholesale and retail	40,850	0.2
	Others	457,412	2.1
	Subtotal	20,999,515	100.0
Financial assets at FVOCI	Financial services	12,918,157	42.0
	Manufacturing	410,676	1.3
	Public administration	11,627,343	37.8
	Construction	27,955	0.1
	Wholesale and retail	24,195	0.1
	Others	5,722,278	18.7
	Subtotal	30,730,604	100.0
Securities at AC	Financial services	18,437,905	52.5
	Manufacturing	207,687	0.6
	Public administration	8,678,059	24.7
	Construction	7,479	0.0
	Wholesale and retail	50,000	0.1
	Others	7,717,689	22.1
	Subtotal	35,098,819	100.0
Derivative assets used for hedging	Financial services	36,338	100.0
Loans	Household loans	136,820,462	37.5
	Corporate loans		
	Financial services	29,246,185	8.0
	Manufacturing	58,711,919	16.1
	Construction	7,456,147	2.0
	Wholesale and retail	24,762,127	6.8
	Real estate rental	50,471,955	13.8
	Others	57,162,164	15.7

Classification	Industry	Amounts	Ratio (%)
	Net deferred origination fees and costs	428,804	0.1
	Subtotal	365,059,763	100.0
Merchant banking account assets	Real estate rental	1,394,319	33.9
	Others	2,713,467	66.1
	Subtotal	4,107,786	100.0
Total		490,759,353	
Off-balance-sheet items			
Financial guarantee contracts	Financial services	140,384	33.5
	Manufacturing	127,023	30.3
	Construction	5,770	1.4
	Wholesale and retail	72,271	17.2
	Real estate rental	60	0.0
	Others	74,131	17.6
	Subtotal	419,639	100.0
Payment guarantees	Household	509,307	2.0
	Financial services	1,527,643	6.1
	Manufacturing	14,377,681	57.5
	Construction	1,448,104	5.8
	Wholesale and retail	4,102,039	16.4
	Real estate rental	171,239	0.7
	Others	2,873,808	11.5
	Subtotal	25,009,821	100.0
Commitments	Household commitments	31,651,158	27.5
	Corporate commitments		
	Financial services	13,458,336	11.7
	Manufacturing	34,435,508	30.0
	Construction	2,033,452	1.8
	Wholesale and retail	10,076,549	8.8
	Real estate rental	4,759,351	4.1
	Others	18,492,672	16.1
	Subtotal	114,907,026	100.0
Merchant banking account – commitment	Financial services	50,000	7.6
	Manufacturing	110,000	16.7
	Wholesale and retail	360,000	54.5
	Real estate rental	100,000	15.2
	Others	40,000	6.0
	Subtotal	660,000	100.0
Total		140,996,486	

December 31, 2023:

Classification	Industry	Amounts	Ratio (%)
On-balance-sheet items			
Due from banks	Financial services	28,821,920	100.0
Financial assets at FVTPL	Financial services	11,556,003	66.4
	Manufacturing	674,647	3.9
	Public administration	4,810,962	27.6
	Construction	7,296	0.0
	Wholesale and retail	36,644	0.2
	Others	330,099	1.9
	Subtotal	17,415,651	100.0
Financial assets at FVOCI	Financial services	18,249,308	50.4
	Manufacturing	364,789	1.0
	Public administration	12,766,025	35.2
	Construction	46,547	0.1
	Wholesale and retail	49,809	0.1
	Others	4,767,167	13.2
	Subtotal	36,243,645	100.0
Securities at AC	Financial services	19,145,017	52.7
	Manufacturing	202,760	0.6
	Public administration	8,882,940	24.4
	Construction	7,270	0.0
	Wholesale and retail	40,000	0.1
	Others	8,079,623	22.2
	Subtotal	36,357,610	100.0
Derivative assets used for hedging	Financial services	1,723	100.0
Loans	Household loans	131,925,789	37.8
	Corporate loans		
	Financial services	26,871,701	7.7
	Manufacturing	55,111,216	15.8
	Construction	6,372,585	1.8
	Wholesale and retail	24,890,572	7.1
	Real estate rental	49,585,167	14.2
	Others	54,151,256	15.5
	Net deferred origination fees and costs	383,467	0.1
	Subtotal	349,291,753	100.0
Merchant banking account assets	Financial services	328,298	7.1
	Real estate rental	1,562,989	33.7
	Others	2,746,537	59.2
	Subtotal	4,637,824	100.0
Total		472,770,126	

Classification	Industry	Amounts	Ratio (%)
Off-balance-sheet items			
Financial guarantee contracts	Financial services	110,699	22.2
	Manufacturing	151,852	30.5
	Construction	9,718	2.0
	Wholesale and retail	73,629	14.8
	Real estate rental	105	0.0
	Others	152,153	30.5
	Subtotal	498,156	100.0
Payment guarantees	Household	281,636	1.2
	Financial services	2,038,770	8.7
	Manufacturing	13,478,737	57.3
	Construction	1,495,516	6.3
	Wholesale and retail	3,846,168	16.3
	Real estate rental	190,164	0.8
	Others	2,204,504	9.4
	Subtotal	23,535,495	100.0
Commitments	Household commitments	30,212,375	27.5
	Corporate commitments		
	Financial services	12,719,603	11.6
	Manufacturing	32,960,995	30.1
	Construction	2,237,093	2.0
	Wholesale and retail	10,058,610	9.2
	Real estate rental	5,040,664	4.6
	Others	16,496,499	15.0
	Subtotal	109,725,839	100.0
Merchant banking account – commitment	Financial services	460,000	59.7
	Manufacturing	50,000	6.5
	Wholesale and retail	110,000	14.3
	Real estate rental	100,000	13.0
	Others	50,000	6.5
	Subtotal	770,000	100.0
Total		134,529,490	

8-3-8-2 Credit risk concentration in each major country as of September 30, 2024, and December 31, 2023, is as follows (KRW in millions, ratio in %):

September 30, 2024:

Classification	Country	Amounts	Ratio (%)
On-balance-sheet items			
Due from banks	Korea	26,083,108	75.1
	China	1,017,789	2.9
	United States	647,537	1.9
	Japan	2,393,392	6.9
	Singapore	30,875	0.1
	Hong Kong	17,863	0.1
	Others	4,535,964	13.0
	Subtotal	34,726,528	100.0
Financial assets at FVTPL	Korea	19,453,475	92.6
	China	132,902	0.6
	United States	147,756	0.7
	Japan	158	0.0
	Hong Kong	5,587	0.0
	Others	1,259,637	6.1
	Subtotal	20,999,515	100.0
Financial assets at FVOCI	Korea	25,156,551	81.9
	China	1,172,714	3.8
	United States	1,302,125	4.2
	Japan	20,133	0.1
	Hong Kong	23,372	0.1
	Others	3,055,709	9.9
	Subtotal	30,730,604	100.0
Securities at AC	Korea	32,750,948	93.3
	China	25,346	0.1
	United States	5,798	0.0
	Others	2,316,727	6.6
	Subtotal	35,098,819	100.0
Derivative assets used for hedging	Korea	16,787	46.2
	Others	19,551	53.8
	Subtotal	36,338	100.0
Loans	Korea	332,149,218	91.0
	China	6,556,156	1.8
	United States	5,413,945	1.5
	Japan	1,605,668	0.4
	Hong Kong	1,640,559	0.4

Classification	Country	Amounts	Ratio (%)
	Others	17,265,413	4.8
	Net deferred origination fees and costs	428,804	0.1
	Subtotal	365,059,763	100.0
Merchant banking account assets	Korea	4,107,786	100.0
Total		490,759,353	
Off-balance-sheet items			
Financial guarantee contracts	Korea	384,674	91.7
	Others	34,965	8.3
	Subtotal	419,639	100.0
Payment guarantees	Korea	20,177,827	80.7
	China	1,127,073	4.5
	United States	439,026	1.8
	Japan	34,350	0.1
	Others	3,231,545	12.9
	Subtotal	25,009,821	100.0
Commitments	Korea	108,830,836	94.7
	China	1,389,779	1.2
	United States	1,128,222	1.0
	Japan	247,008	0.2
	Others	3,311,181	2.9
	Subtotal	114,907,026	100.0
Merchant banking account – commitment	Korea	660,000	100.0
Total		140,996,486	

December 31, 2023:

Classification	Country	Amounts	Ratio (%)
On-balance-sheet items			
Due from banks	Korea	17,784,561	61.7
	China	878,347	3.0
	United States	4,605,337	16.0
	Japan	2,142,890	7.4
	Singapore	11,882	0.1
	Hong Kong	42,823	0.1
	Others	3,356,080	11.7
	Subtotal	28,821,920	100.0
Financial assets at FVTPL	Korea	15,967,783	91.7
	China	57,206	0.3
	United States	130,627	0.8
	Japan	174	0.0
	Hong Kong	4,173	0.0
	Others	1,255,688	7.2
	Subtotal	17,415,651	100.0
Financial assets at FVOCI	Korea	30,646,121	84.6
	China	1,626,027	4.5
	United States	1,540,546	4.2
	Hong Kong	38,707	0.1
	Others	2,392,244	6.6
	Subtotal	36,243,645	100.0
Securities at AC	Korea	33,992,715	93.5
	China	24,425	0.1
	United States	5,783	0.0
	Others	2,334,687	6.4
	Subtotal	36,357,610	100.0
Derivative assets used for hedging	Korea	1,723	100.0
Loans	Korea	317,736,784	91.0
	China	5,663,134	1.6
	United States	5,330,932	1.5
	Japan	1,647,939	0.5
	Hong Kong	2,122,689	0.6
	Others	16,406,808	4.7
	Net deferred origination fees and costs	383,467	0.1
	Subtotal	349,291,753	100.0
Merchant banking account assets	Korea	4,637,824	100.0
Total		472,770,126	

Classification	Country	Amounts	Ratio (%)
Off-balance-sheet items			
Financial guarantee contracts	Korea	498,156	100.0
Payment guarantees	Korea	18,300,061	77.8
	China	1,548,486	6.6
	United States	302,543	1.3
	Japan	27,751	0.1
	Others	3,356,654	14.2
	Subtotal	23,535,495	100.0
Commitments	Korea	105,143,471	95.8
	China	460,060	0.4
	United States	936,329	0.9
	Japan	145,058	0.1
	Others	3,040,921	2.8
	Subtotal	109,725,839	100.0
Merchant banking account – commitment	Korea	770,000	100.0
Total		134,529,490	

8-4 Liquidity risk

The Group defines liquidity risk as the possibility of incurring losses due to a temporary shortage in funds caused by a maturity mismatch or an unexpected capital outlay leading to rise in interest or sale of assets at a price below normal price.

8-4-1 Measurement of liquidity risk

The Group maintains a limit management indicator to measure the liquidity coverage ratio, liquidity ratio in foreign currency, net stable funding ratio, foreign currency maturity mismatch ratio and long-term access to financing ratio in foreign currency in accordance with the guidelines and standards of the Financial Supervisory Service. In addition, the Group maintains a monitoring indicator to measure unbalance of funding, etc., to manage the liquidity risk and manage early warning indicators in order to identify worsening trends in the early stage to respond in a timely manner.

8-4-2 Management of liquidity risk

At an early stage, the Group identifies factors affecting liquidity in order to manage liquidity risks and has achieved an adequate level of liquidity via performing systematic management.

The Group has the following basic principles for liquidity risk management:

- a. Set and comply with liquidity risk limits and coordinate and manage early warning indicators to identify liquidity risk at an early stage.
- b. Regularly execute an analysis of stress tests and prepare an emergency procurement plan in case of liquidity.
- c. Focus on maintaining a diversified portfolio in order to avoid excessive concentrations of risks.
- d. Evaluate and manage the effect of a large amount of money, which is loaned out, invested or procured on liquidity risks.

In order to manage liquidity risk, the Group builds internal control systems for each department. In order to comply with liquidity ratios and the maturity mismatch ratio set by the Financial Supervisory Service, the Comprehensive Risk Management department conducts daily monitoring. Liquidity risk status is reported to the Risk Management Operation Committee on a monthly basis and to the Risk Management Committee on a quarterly basis.

In order to maintain the liquidity risk management indicators to stay within acceptable limits, the Treasury department recommends the necessary measures in relation to the procurement and operation of the assets and liabilities traded in the capital market. In addition, stages of emergency planning have been established in order to respond to liquidity emergencies. The Planning and Management department has established a portfolio management strategy based on the internal and external liquidity risk management requirements and the outlook of the procurement and operating markets.

8-4-3 Analysis of contract maturity

8-4-3-1 Analysis criteria

The details of the remaining contractual maturities of financial liabilities are analyzed by the earliest maturity date when the Group would be required to pay, based on the undiscounted cash outflows of the Group's financial liabilities. In addition, financial liabilities at FVTPL and depository liabilities (payment on demand) are shown at fair value in the immediate payment column. All derivatives used for hedging are presented based on the net cash flows, as all products are paid in the net amount. A contract maturity exists in payment guarantees that correspond to financial guarantees such as bond issuance and loan security provided by the Group, loan commitment and other credit granting. However, payment must be made immediately once the counterparty requests payment. As such, they are included in the immediate payment column.

8-4-3-2 The remaining contractual maturities of financial liabilities and off-balance-sheet items

The remaining contractual maturities of financial liabilities and off-balance-sheet items as of September 30, 2024, and December 31, 2023, are as follows
(Korean won in millions):

September 30, 2024:

Classification	On demand	Less than 1 month	1 month ~ 3 months	3 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
On-balance-sheet items							
Financial liabilities							
Financial liabilities at FVTPL	5,961,546	–	–	–	–	652,798	6,614,344
Deposits	151,630,948	34,781,779	56,884,897	125,007,667	18,360,124	1,599,847	388,265,262
Borrowings	4,780,795	5,624,281	2,520,173	6,182,135	3,616,169	622,219	23,345,772
Debentures	89,090	1,547,959	1,780,000	8,165,160	15,778,097	2,460,620	29,820,926
Derivative assets used for hedging	–	28,245	12,998	79,842	303,462	(481,017)	(56,470)
Other financial liabilities	8,734,610	29,467,211	1,380	28,529	27,147	4,402	38,263,279
Merchant banking account liabilities	1,138,433	3,131,763	–	–	–	–	4,270,196
Total	172,335,422	74,581,238	61,199,448	139,463,333	38,084,999	4,858,869	490,523,309
Off-balance-sheet items							
Finance guarantee contracts	419,639	–	–	–	–	–	419,639
Payment guarantee	25,009,821	–	–	–	–	–	25,009,821
Commitment	114,907,026	–	–	–	–	–	114,907,026
Merchant banking account – commitment	660,000	–	–	–	–	–	660,000
Total	140,996,486	–	–	–	–	–	140,996,486

December 31, 2023:

Classification	On demand	Less than 1 month	1 month ~ 3 months	3 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
On-balance-sheet items							
Financial liabilities							
Financial liabilities at FVTPL	6,494,492	–	–	–	–	422,346	6,916,838
Deposits	149,780,476	35,914,296	50,697,264	123,140,490	16,334,448	1,429,565	377,296,539
Borrowings	3,469,782	4,844,665	3,151,970	5,241,274	4,929,718	585,492	22,222,901
Debentures	126	1,121,368	1,542,286	8,509,438	13,754,227	2,207,777	27,135,222
Derivative assets used for hedging	–	7,644	3,749	18,275	51,876	(81,179)	365
Other financial liabilities	7,841,208	22,129,253	1,483	22,485	36,394	1,825	30,032,648
Merchant banking account liabilities	1,536,529	2,618,168	–	–	–	–	4,154,697
Total	169,122,613	66,635,394	55,396,752	136,931,962	35,106,663	4,565,826	467,759,210
Off-balance-sheet items							
Finance guarantee contracts	498,156	–	–	–	–	–	498,156
Payment guarantee	23,535,495	–	–	–	–	–	23,535,495
Commitment	109,725,839	–	–	–	–	–	109,725,839
Merchant banking account – commitment	770,000	–	–	–	–	–	770,000
Total	134,529,490	–	–	–	–	–	134,529,490

Assets available for use to execute unused loan commitments after redeeming all financial liabilities are cash and bank deposits, debt securities, equity securities and loans. In addition, the Group is able to cope with unexpected cash outflows through the sale of securities and additional sources of funding, such as asset-backed securitization.

8-5 Market risk

Market risk is a risk incurred in assets and liabilities subject to management based on the changes in market prices, such as interest rate, stocks and foreign exchange.

8-5-1 Market risk management

The purpose of market risk management is to manage the loss of assets and liabilities incurred due to changes in market variables, such as interest rates, foreign exchanges and equity prices to remain within the allowable limits in order to ensure profitability and stability.

8-5-2 Market risk management targets

Market risk management targets include marketable securities, foreign currency net positions, derivatives and other assets and liabilities with embedded market risks. The Group classifies exposures to market risk into either trading or non-trading positions and manages each of those portfolios separately.

8-5-3 Management of market risk related to trading position

8-5-3-1 Trading account classification

A trading account is a concept of a trading book and refers to a set of products held for short-term trading purposes, etc., and there should be no legal restrictions on selling or completely hedging products that are to be classified as trading accounts. Specifically, the following financial products are classified as trading accounts, excluding products that cannot be classified as trading accounts and bank account products:

- a. Financial instruments for the short-term trading
- b. Financial instruments for the purpose of hedging risks
- c. Financial instruments for the purpose of acquiring arbitrages
- d. From A to C, hedge of other goods held for any of the purposes
- e. Financial instruments included in the Correlation Trading Portfolio ("CTP")
- f. Financial instruments that generate credit or stock net selling positions in bank accounts (*)

- g Underwriting arrangements for securities that are actually expected to be purchased on the settlement date
- (*) Credit or stock net selling positions in bank accounts: Bank account positions whose current value rises as issuer credit spreads of debt instruments expand or share prices fall

8-5-3-2 Management of the trading position limits

The Risk Management Committee divides capital, annual loss and exposure limit in relation to market risks of the trading position by business unit (division) annually. Within the given limit, the Risk Management Operation Committee further subdivides the limits by business units (divisions) and desks. The Risk Management Group provides information necessary for deliberation and review by the committee, reports trading limits and measures risks.

The middle office performs mark-to-market measures and monitors trade violations and compliance with the limits. The middle office establishes and complies with trading policy regulations, measures market risk for trading positions and checks daily compliance within the acceptable limits for each risk. The office also conducts daily inspections of changes in the management exposure, compliance with the limit, post verification and crisis analysis and reports the results to the management team every day.

8-5-3-3 Market Risk Measurement (Basel 3 Standard)

The basic calculation method for managing and measuring the exposure of trading account products to market risks is calculated by dividing them into sensitivity risk, default risk and residual risk. Sensitivity risk refers to the risk of loss due to changes in market risk factors, such as exchange rates, interest rates and stock prices. The risk of default refers to the risk of loss due to bankruptcy of bonds or stock issuers.

8-5-3-4 Amount of risk by risk type

The details of regulated capital by market risk group as of September 30, 2024, are as follows (KRW in millions):

Classification	Risk type	Amount
Sensitivity Risk Charge	General interest rate risk	67,927
	Credit spread risk ("CSR") (non-securitizations)	52,535
	CSR (securitizations (non-CTP))	—
	CSR (securitization (CTP))	—
	Equity risk	27,563
	Foreign exchange risk	399,325
	Commodity risk	—
Default Risk Charge	Non-securitizations	38,549
	Securitizations (non-CTP)	—
	Securitizations (CTP)	—
Residual Risk Add-On ("RRAO")	RRAO	943
Total		586,842

8-5-4 Management of market risk related to non-trading position

8-5-4-1 Interest rate risk

Interest rate risk of non-trading position is a risk of losses in financial assets and liabilities with interest rates due to adverse changes in interest rates and is incurred when maturity structure does not match interest rate setting cycle of the related assets and liabilities. The Group manages the interest rate risks of non-trading position in order to maintain the stability of net interest income and net asset value based on changes in interest rates. The following is subject to the Group's management of interest rate risk:

- a. Financial assets with interest rates, such as bank deposits, debt securities and loans
- b. Financial liabilities with interest rates, such as depository liabilities, borrowings and debentures
- c. Financial derivatives, such as interest rate swaps

Interest rate risk is calculated using the gap between interest-sensitive assets and liabilities. The interest rate risks measure the interest rate gap ratio as a primary indicator, while Δ EVE, Δ NII ratio and duration are used as secondary indicators. The Risk Management Committee and the Risk Management Operation Committee establish the interest rate risk limits on an annual basis; the compliance thereof is reported to Risk Management Operation Committee, as well as the Risk Management Committee on a monthly and quarterly basis, respectively.

Economic value of equity ("△EVE") refers to changes in the △EVE capital, indicating the effect of adverse changes in interest rates on the present value of assets, liabilities and others. As of September 30, 2024, and December 31, 2023, the Group's △EVE is as follows (KRW in millions):

Classification	September 30, 2024	Average	Minimum	Maximum	December 31, 2023
△EVE	2,300,362	2,167,935	1,827,664	2,427,465	1,883,644

△EVE calculates the maximum value compared to the default scenario by applying nine interest rates (parallel rise, parallel fall, short-term fall and long-term rise, short-term rise and long-term fall and short-term rise and short-term fall) after generating cash flows for interest-sensitive assets and liabilities under the Supervision of Banking Business Appendix 9-1.

8-5-4-2 Equity price risk

Equity price risk is a risk incurred when the fair value of equities results in changes in the level of related revenue and capital. Fluctuation in equity reflects the sensitivity of each equity. Effects on capital due to the fluctuation in equity price risk as of September 30, 2024, are as follows (KRW in millions):

Classification	20% decline	10% decline	10% rise	20% rise
Equity price risk	(51,214)	(25,607)	25,607	51,214

8-5-5 Currency risk concentration

Currency risk is a risk incurred when the value of a financial instrument or future cash flows fluctuates due to the changes in foreign exchange rates. Currency risk arises from the financial instruments expressed in currencies other than the functional currency. Currency risk does not arise from the financial instruments expressed in the functional currency or in non-monetary items. In order to establish the stop loss and limits, the Group manages the foreign exchange net exposure amount of the trading and non-trading positions by each currency.

Significant foreign currency assets and liabilities denominated in Korean won as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	USD	JPY	EUR	CNY	IDR	Others	Total
Assets							
Cash and due from bank	11,939,051	2,806,538	1,032,469	1,062,786	98,420	1,534,683	18,473,947
Financial assets at FVTPL	132,328	454	7,138	52,164	27,078	120,656	339,818
Financial assets at FVOCI	5,114,232	–	33,709	1,172,714	447,722	2,050,794	8,819,171
Securities at AC	1,580,999	–	125,991	18,608	176,194	1,604,834	3,506,626
Loans	23,027,568	1,507,483	4,243,270	7,381,043	1,632,489	5,665,091	43,456,944
Derivative Assets used for hedging	19,552	–	–	–	–	–	19,552
Others	10,599,388	189,755	1,530,411	532,518	57,275	531,673	13,441,020
Total	52,413,118	4,504,230	6,972,988	10,219,833	2,439,178	11,507,731	88,057,078
Liabilities							
Financial liabilities at FVTPL	202,616	331	6,983	439	3,540	119,149	333,058
Deposits	34,138,029	4,030,774	4,950,702	8,753,154	1,309,164	6,073,155	59,254,978
Borrowings	9,381,798	79,902	781,430	501,375	133,574	892,177	11,770,256
Debentures	3,571,369	–	1,589,155	456,751	–	136,866	5,754,141
Derivative liabilities used for hedging	112,993	–	–	–	–	–	112,993
Others	10,015,278	397,073	1,939,400	563,823	37,780	874,987	13,828,341
Total	57,422,083	4,508,080	9,267,670	10,275,542	1,484,058	8,096,334	91,053,767

December 31, 2023:

Classification	USD	JPY	EUR	CNY	IDR	Others	Total
Assets							
Cash and due from bank	13,462,151	2,852,534	640,913	849,322	188,125	1,004,784	18,997,829
Financial assets at FVTPL	139,221	316	12,535	50,749	25,804	104,702	333,327
Financial assets at FVOCI	3,698,272	–	41,406	1,651,409	300,718	1,655,728	7,347,533
Securities at AC	1,752,567	–	122,681	18,496	186,307	1,591,848	3,671,899
Loans	24,136,661	1,586,366	3,920,339	7,035,033	1,557,384	5,526,201	43,761,984
Others	5,066,110	366,976	764,095	1,179,742	48,660	775,702	8,201,285
Total	48,254,982	4,806,192	5,501,969	10,784,751	2,306,998	10,658,965	82,313,857
Liabilities							
Financial liabilities at FVTPL	238,782	1,376	11,708	9,660	2,155	102,964	366,645
Deposits	31,951,381	4,021,355	4,245,043	8,147,643	1,452,292	5,478,873	55,296,587
Borrowings	9,489,215	195,713	734,199	171,672	44,060	951,799	11,586,658
Debentures	4,315,722	–	1,519,420	192,936	–	172,750	6,200,828
Derivative liabilities used for hedging	170,926	–	–	–	–	–	170,926
Others	5,631,026	525,801	492,177	1,360,759	28,598	419,314	8,457,675
Total	51,797,052	4,744,245	7,002,547	9,882,670	1,527,105	7,125,700	82,079,319

8-6 Operational risk

Operational risk is the risk of loss arising from system failure, human error, fraud or other external events. Risks related to legal or regulatory implications are identified as operational risks, but risks related to the strategy of damaging reputation are excluded from operational risks. Operational risk includes losses from internal operational problems and externalities, such as natural disasters, etc., and legal lawsuit, but excludes losses from policy decision errors or unmeasurable reputation damage, etc. Operational risk does not have a direct correlation with income and the Group needs to mitigate such risk through internal controls and insurance.

Operational risk capital is calculated by multiplying the Business Indicator Component based on interim consolidated financial statements and the internal loss multiplier ("ILM"). The business index factor is calculated based on the interim consolidated financial statements by multiplying the annual average of interest-lease dividend factors, service factors and financial transaction factors over the past three years by the factor of each section. The ILM is the log function value of the loss element and the business index element, and the loss element is calculated by multiplying the average annual loss amount generated internally by the bank over the past 10 years by 15.

The Risk Management Committee determines the operational risk limits. In case the excess limit is expected, the management plan for the excess of internal capital limits should be reported to the Risk Management Operation Committee and if additional limits are given, an approval from the Risk Management Committee is needed beforehand. If the limit is exceeded due to the occurrence of an exceptional situation, an ex post facto approval from the Risk Management Committee is needed for the information on exceeded amount and post hoc results, as well as the subsequent plans.

8-7 Capital management

The Group implements the BIS capital requirement system in order to secure the capital adequacy and comply with the supervisory regulations. By BIS regulation, the Group keeps its BIS capital adequacy ratio ("BIS ratio") above the minimum BIS ratio for the RWA. In addition, the Group performs a capital adequacy assessment in order to cope with an unexpected loss.

RWAs which is calculated per each risk type when calculating BIS ratio, is as follows:

- a. RWAs of credit risk is calculated using the basic internal ratings-based approach. The Group uses the standardized approach for governments, banks, public institutes, overseas exposure, other assets, etc.
- b. RWAs of the market risk is calculated by multiplying 12.5 to the amount of capital required by adding individual risks calculated by the standard model to the general risk calculated by the internal model.
- c. RWAs of the operational risk is calculated by multiplying 12.5 to the amount of operational risk capital calculated by advanced measurement approach for the Group and basic indicator approach for its subsidiaries.

Regulatory capital in accordance with the Regulations on the Supervision of Banking Business for calculating BIS ratio is as follows:

- a. Common equity: Capital incurred in connection with common stock issued to meet the eligible requirement, capital surplus and capital adjustments, retained earnings, accumulated other comprehensive income and other capital surplus, capital adjustments, non-controlling interest on common shares issued by banks, affiliated subsidiaries, etc.
- b. Other basic capital: The capital securities to meet accreditation requirements of other basic capital, capital surplus associated with the issuance of the other basic capital, non-qualifying capital securities and the accredited amount as other basic capital of a non-controlling interest on equity securities issued by a subsidiary, etc.
- c. Supplementary capital: The capital securities to meet supplementary capital accreditation requirements, capital surplus associated with the issuance of supplementary capital, the accredited amount of supplementary capital of non-qualifying capital securities, the accredited amount as supplementary capital of a non-controlling interest on equity securities issued by a subsidiary, eligible allowance for possible loan losses on "normal" or "precautionary" category assets, allowance for possible loan losses in excess of the total amount of expected losses, etc.

8-7-1 Internal capital adequacy assessment and management

Internal capital is the amount that allows for continuous operation of business while accounting for all risks. Internal capital is defined as the size of capital needed to cope with an unexpected loss under a certain rate. The purpose of managing the internal capital is to compare the size of internal capital and available capital (Tier 1) and to serve as a measure of financial strength.

Managing the internal capital also provides the amount of risk-adjusted capital and basic measurement. The indicators are composed of the risk appetite ratio, as well as exhaustion ratio of foreign holding limits. The risk appetite ratio is an internal capital ratio established after taking into consideration a capital buffer in Tier 1 capital. The exhaustion ratio of foreign holding limits is a ratio used to measure the amount of internal capital used against the internal capital limits.

Internal capital limits are established after accounting for the size of current and subsequent Tier 1 capital, as well as the components, quality, risk appetite, target credit rating, operational strategy and business plans. The Risk Management Committee determines risk types and the internal capital limits for the Group more than once a year. In case where new operations or the expansion of operations results in the amount exceeding the internal capital limits, an approval from the Risk Management Committee is needed beforehand. If such a situation occurs in cases outlined as exceptions, an approval from the Risk Management Committee is needed for the information on exceeded amount and post hoc results, as well as the subsequent plans.

9. OPERATING SEGMENT INFORMATION:

9-1 General information

In order to set strategies to achieve goals and efficiently conduct performance assessment, the business sectors of the Group are divided by operations as follows:

- a. Operating bank segment: It consists of four banks (Center, Yeongnam, Chungcheong and Honam). It offers household loan and deposit, retirement pension, company loan, deposit, etc.
- b. Capital market segment: This segment offers investment and operation of securities, buying and selling of public bonds and development and operation of derivatives.
- c. Other segment: It consists of the overseas business segment, headquarters supporting segment, trust segment, risk segment, audit segment and after-management segment.

9-2 Profit or loss by operating segment

9-2-1 Details of net income by operating segments for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Operating group segments				Finance sector and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Net interest income	3,778,132	613,681	571,766	176,626	640,984	5,781,189	1,421	5,782,610
Interest income (expenses)	14,525,793	2,880,650	2,066,468	909,676	(4,992,846)	15,389,741	(84,127)	15,305,614
Interest expenses (income)	(10,747,661)	(2,266,969)	(1,494,702)	(733,050)	5,633,830	(9,608,552)	85,548	(9,523,004)
Net fees and commission income (loss)	568,716	74,754	46,028	21,959	125,486	836,943	(261,731)	575,212
Net other operating profit (loss)	(1,517,781)	(336,040)	(260,249)	(101,459)	(1,169,741)	(3,385,270)	687,959	(2,697,311)
Net segment profit (loss)	2,829,067	352,395	357,545	97,126	(403,271)	3,232,862	427,649	3,660,511
Income tax expenses (benefit)	746,874	93,032	94,392	25,641	(126,470)	833,469	37,071	870,540
Net segment income (loss)	2,082,193	259,363	263,153	71,485	(276,801)	2,399,393	390,578	2,789,971

For the nine-month period ended September 30, 2023:

Classification	Operating group segments				Finance sector and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Net interest income	4,330,351	722,479	612,509	198,237	102,878	5,966,454	(1,682)	5,964,772
Interest income (expenses)	14,322,875	2,720,297	1,927,432	873,021	(5,190,573)	14,653,052	(51,515)	14,601,537
Interest expenses (income)	(9,992,524)	(1,997,818)	(1,314,923)	(674,784)	5,293,451	(8,686,598)	49,833	(8,636,765)
Net fees and commission income (loss)	514,038	73,610	41,188	20,919	133,231	782,986	(264,312)	518,674
Net other operating profit (loss)	(1,461,150)	(311,450)	(238,335)	(96,352)	(1,154,660)	(3,261,947)	428,470	(2,833,477)
Net segment profit (loss)	3,383,239	484,639	415,362	122,804	(918,551)	3,487,493	162,476	3,649,969
Income tax expenses (benefit)	893,175	127,944	109,656	32,420	(242,765)	920,430	(44,969)	875,461
Net segment income (loss)	2,490,064	356,695	305,706	90,384	(675,786)	2,567,063	207,445	2,774,508

9-2-2 Revenue from external customers in each operating sector for the nine-month periods ended September 30, 2024 and 2023, is as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Operating group segments				Finance sector and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Revenue from external customers	3,891,886	591,172	515,969	164,779	1,442,984	6,606,790	(94,308)	6,512,482

For the nine-month period ended September 30, 2023:

Classification	Operating group segments				Finance sector and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Revenue from external customers	4,392,976	702,231	563,653	186,963	904,146	6,749,969	(47,579)	6,702,390

9-2-3 Significant non-cash transactions included in income of operating segments for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Operating group segments				Finance sector and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Earnings from equity method investments	-	-	-	-	150,803	150,803	-	150,803
Depreciation and amortization	(96,542)	(11,027)	(9,078)	(3,600)	(275,610)	(395,857)	(767)	(396,624)
Total	(96,542)	(11,027)	(9,078)	(3,600)	(124,807)	(245,054)	(767)	(245,821)

For the nine-month period ended September 30, 2023:

Classification	Operating group segments				Finance sector and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Earnings from equity method investments	-	-	-	-	110,551	110,551	-	110,551
Depreciation and amortization	(102,432)	(10,518)	(8,007)	(2,862)	(243,529)	(367,348)	(716)	(368,064)
Total	(102,432)	(10,518)	(8,007)	(2,862)	(132,978)	(256,797)	(716)	(257,513)

9-3 Information about geographic region

Gain and loss by geographic region from the external customers for the nine-month periods ended September 30, 2024 and 2023, and non-current assets by the region as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Gain and loss from external customers(*1)		Non-current assets(*2)	
	For the nine-month period ended September 30, 2024	For the nine-month period ended September 30, 2023	September 30, 2024	December 31, 2023
Domestic	5,895,360	5,993,319	3,589,691	3,317,272
Foreign				
Hong Kong	56,379	52,073	6,734	2,844
Singapore	38,271	37,036	1,561	2,526
United States	81,038	74,643	25,121	27,806
Japan	17,048	23,251	4,801	2,488
China	122,609	167,875	57,762	62,438
Indonesia	121,781	124,220	64,283	48,045
United Kingdom	6,545	6,153	2,579	2,102
Canada	38,635	44,760	21,736	22,355
Others	229,126	226,639	26,301	27,000
Subtotal	711,432	756,650	210,878	197,604
Adjustments	(94,310)	(47,579)	4,921	4,737
Total	6,512,482	6,702,390	3,805,490	3,519,613

(*1) Gain and loss from external customers are divided into categories of domestic and overseas based on the locations of operating branches.

(*2) Non-current assets consist of property and equipment, investment property, intangible asset and right-of-use assets and are divided into categories of domestic and overseas based on the location of assets.

10. CASH AND DUE FROM BANKS:

10-1 Cash and due from banks as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Counterparty	September 30, 2024	December 31, 2023
Cash		2,281,385	1,742,359
Due from banks in Korean won			
Reserve deposits	Bank of Korea ("BOK")	16,846,078	10,025,623
Time deposits, etc.	Other banks	3,389	401,191
Other deposits	Other financial institutions	83,914	23,654
Subtotal		16,933,381	10,450,468
Due from banks in foreign currencies			
Due from other branches	BOK and other banks	11,691,526	8,823,939
Time deposits and others	QATAR National Bank and other banks	1,214,956	1,018,569
Other deposits	Other financial institutions	4,886,665	8,528,944
Subtotal		17,793,147	18,371,452
Total		37,007,913	30,564,279

10-2 Restricted balances in due from banks as of September 30, 2024, and December 31, 2023, are summarized as follows (KRW in millions):

Classification		September 30, 2024	December 31, 2023	Restriction
Due from banks in Korean won	Reserve deposits	16,846,078	10,025,623	Required under the <i>Banking Act</i> and other related regulations
	Collective fund for Korea Stock Exchange	500	500	Pledge creation, etc.
	Subtotal	16,846,578	10,026,123	
Due from banks in foreign currencies	Due from other branches	9,269,556	7,828,902	Reserve deposits required under the <i>Banking Act</i> and other related regulations
	Due from others	4,301,716	8,199,138	Deposits received for guarantees as margin for derivatives, etc.
	Subtotal	13,571,272	16,028,040	
Total		30,417,850	26,054,163	

11. FINANCIAL ASSETS AT FVTPL:

11-1 Financial assets mandatorily measured at FVTPL as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Stocks	103,429	117,803
Government and public bonds	6,465,328	4,555,436
Financial bonds	774,458	397,600
Corporate bonds	910,141	1,060,500
Beneficiary certificates	4,133,830	3,265,402
Securities denominated in foreign currencies	2,303,183	1,507,867
Derivative assets held for trading	5,663,535	5,965,872
Other securities (investment, etc.)	721,823	636,949
Private convertible bonds	7,598	7,447
Total	21,083,325	17,514,876

11-2 As of September 30, 2024, and December 31, 2023, the Group does not hold any financial assets designated as at FVTPL.

12. FINANCIAL ASSETS AT FVOCI:

12-1 As of September 30, 2024, and December 31, 2023, financial assets at FVOCI are as follows (KRW in millions):

Classification	Counterparty	Fair value (Book value)	
		September 30, 2024	December 31, 2023
Stocks	Daewoo Shipbuilding & Marine Engineering Co., Ltd., etc.	650,566	610,317
Government and public bonds	Treasury bonds	4,484,669	6,432,877
	Housing bonds	3,633,326	2,614,084
	Other local bonds	206,520	213,751
	Subtotal	8,324,515	9,260,712
Finance bonds	Monetary stabilization securities	1,995,848	5,708,089
	Deposit bank bonds	786,978	1,269,983
	Small- and medium-sized business banking bonds	675,331	1,510,420
	Industrial financial bonds	1,937,345	3,713,637
	Export-import credit bonds	119,711	226,751
	Others	100,345	140,015
	Subtotal	5,615,558	12,568,895
Corporate bonds and others	State-owned entity bonds	7,438,613	6,631,316
	Corporate bonds	532,746	375,868
	Others	—	59,321
	Subtotal	7,971,359	7,066,505
Other securities	Convertible bonds (permanent)	29,503	33,153
Securities denominated in foreign currencies	Equity securities in foreign currencies	7,184	6,996
	Bonds in foreign currencies	8,819,172	7,347,533
	Subtotal	8,826,356	7,354,529
Total		31,417,857	36,894,111

12-2 As of September 30, 2024, and December 31, 2023, details of equity instruments included in financial assets at FVOCI are as follows (KRW in millions):

Counterparty	Fair value (Book value)	
	September 30, 2024	December 31, 2023
UAMCO, Ltd.	212,350	196,670
Hanwha Ocean Co., Ltd.	175,968	144,576
The Korea Securities Finance Corporation	114,616	118,002
Kookrin Cable Investment Inc.	29,503	33,153
Taeyoung Construction Co., Ltd.	24,567	–
Korea Rating & Data	18,490	18,933
Korea Asset Management Corporation	15,737	15,737
Kumho Tire Co., Ltd.	10,996	13,084
Korea Money Brokerage Corp.	10,842	11,014
BC Card Co., Ltd.	10,559	10,298
HJC Inc.	9,369	10,190
Mirae Credit Information Co., Ltd.	7,141	6,416
Plantec Co., Ltd.	6,685	6,463
CLS GROUP HOLDINGS AG	5,759	5,603
DB Asset Management Co., Ltd.	5,658	5,753
CM Shipping Co.	3,171	3,807
MBN Broadcasting Co.	2,505	2,665
Channel A Broadcasting Co.	2,420	2,463
Korea Securities Depository	2,180	2,291
Happy Fund	–	26,261
Korea Shipping Corporation, etc.	18,737	17,087
Total	687,253	650,466

Equity instruments that are held by the purpose of strategic alliances, acquisition due to conversion from debt instruments and acquisition for access rights of systems and facilities are designated as measured at FVOCI.

12-3 Details of equity instruments included in the financial assets at FVOCI derecognized for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Counterparty	Fair value	Cumulative valuation loss	Reason for disposal
DL Construction Co., Ltd.	2,418	(3,491)	Exchange of stock
Crear Co., Ltd.	33	–	Exchange of stock
K Shipbuilding Co., Ltd.	49	(3,340)	Sale of convertible shares
Total	2,500	(6,831)	

For the nine-month period ended September 30, 2023:

Counterparty	Fair value	Cumulative valuation gain (loss)	Reason for disposal
STX Engine Co., Ltd.	45,207	19,826	Exercise of the right to sell
IM Life Insurance Co., Ltd.	2	(107)	Exchange of stock
Etapol Co., Ltd.	12	12	Sale of convertible shares
Impact Finance Korea	205	15	Exchange of stock
Hanwha Ocean Co., Ltd.	138,774	138,774	Sale of convertible shares
Marizin Co., Ltd.	–	–	Stock retirement
Enertec Co., Ltd.	–	–	Stock retirement
Nanorric Art Co., Ltd.	–	–	Stock retirement
Honghwa	–	–	Stock retirement
Total	184,200	158,520	

12-4 Dividends recognized in relation to the equity instruments at FVOCI derecognized for the nine-month periods ended September 30, 2024, amount to ₩32 million. Dividends recognized in relation to the equity instruments at FVOCI held as of September 30, 2024, amount to ₩8,248 million. There are no dividends recognized due to the equity instruments at FVOCI derecognized for the nine-month periods ended September 30, 2023. Dividends recognized in relation to the equity instruments at FVOCI held as of September 30, 2023, amount to ₩7,994 million.

12-5 Changes in the loss allowance in relation to financial assets at FVOCI for the nine-month periods ended September 30, 2024 and 2023, are as follows (Korean won in millions):

For the nine-month period ended September 30, 2024:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	13,110	—	—	13,110
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
Reversal of Provision	5,509	—	—	5,509
Removed debt securities	(7,026)	—	—	(7,026)
Exchange rate fluctuation and others	784	—	—	784
Ending balance	12,377	—	—	12,377

For the nine-month period ended September 30, 2023:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	11,150	—	—	11,150
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
Reversal of Provision	4,672	—	—	4,672
Removed debt securities	(4,646)	—	—	(4,646)
Exchange rate fluctuation and others	1,227	—	—	1,227
Ending balance	12,403	—	—	12,403

12-6 Changes in the total book value in relation to financial assets at FVOCI for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	36,243,645	—	—	36,243,645
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
New financial assets executed or purchased	20,405,892	—	—	20,405,892
Removed debt securities	(26,433,064)	—	—	(26,433,064)
Exchange rate fluctuation and others	514,131	—	—	514,131
Ending balance	30,730,604	—	—	30,730,604

For the nine-month period ended September 30, 2023:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	32,150,076	—	—	32,150,076
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
New financial assets executed or purchased	15,070,010	—	—	15,070,010
Removed debt securities	(13,146,726)	—	—	(13,146,726)
Exchange rate fluctuation and others	308,499	—	—	308,499
Ending balance	34,381,859	—	—	34,381,859

13. SECURITIES AT AC:

13-1 Details of securities at AC as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Category	September 30, 2024	December 31, 2023
Government and public bonds	Treasury bonds	3,068,271	3,087,295
	Housing bonds	3,019,229	2,981,531
	Other local government bonds	473,107	506,962
	Subtotal	6,560,607	6,575,788
Finance bonds	Monetary stabilization securities	250,001	249,998
	Deposit bank bonds	368,114	546,857
	Small- and medium-sized business banking bonds	2,329,879	2,299,692
	Industrial financial bonds	3,900,395	3,929,216
	Export-import credit bond	399,941	349,794
	Other financial bond	20,000	–
	Subtotal	7,268,330	7,375,557
Corporate bonds and others	State-owned entity bonds	17,473,541	18,446,291
	Corporate bonds	280,416	279,483
	Subtotal	17,753,957	18,725,774
Securities denominated in foreign currencies	Bonds in foreign currencies	3,515,925	3,680,491
Allowances		(21,110)	(19,661)
Total		35,077,709	36,337,949

13-2 Profit or loss from disposal of securities at AC for the nine-month periods ended September 30, 2024 and 2023, is as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Face amount	Book value	Amount of profit from disposal
Corporate bonds and others	101,224	101,222	2

For the nine-month period ended September 30, 2024, the Group disposed portion of securities at AC in response to the exercise of options (prepayment option) by the issuer of securities.

For the nine-month period ended September 30, 2023:

Classification	Face amount	Book value	Amount of profit from disposal
Corporate bonds and others	5,332	5,330	2

For the nine-month period ended September 30, 2023, the Group disposed portion of securities at AC in response to the exercise of options (prepayment option) by the issuer of securities.

13-3 Changes in the loss allowance in relation to securities at AC for the nine-month periods ended September 30, 2024 and 2023, are as follows
(KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	13,731	5,930	–	19,661
Transfer to 12-month ECL	–	–	–	–
Transfer to non-credit-impaired debt securities	–	–	–	–
Transfer to credit-impaired debt securities	–	–	–	–
Provision for possible loan losses	1,793	585	–	2,378
Removed debt securities	(865)	–	–	(865)
Exchange rate fluctuation and others	(289)	225	–	(64)
Ending balance	14,370	6,740	–	21,110

For the nine-month period ended September 30, 2023:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	13,073	5,773	63,970	82,816
Transfer to 12-month ECL	–	–	–	–
Transfer to non-credit-impaired debt securities	–	–	–	–
Transfer to credit-impaired debt securities	–	–	–	–
Provision for possible loan losses	1,821	251	2,313	4,385
Removed debt securities	(623)	–	(27,986)	(28,609)
Exchange rate fluctuation and others	(546)	60	839	353
Ending balance	13,725	6,084	39,136	58,945

13-4 Changes in the carrying amounts of securities at AC for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	36,333,184	24,426	–	36,357,610
Transfer to 12-month ECL	–	–	–	–
Transfer to non-credit-impaired debt securities	–	–	–	–
Transfer to credit-impaired debt securities	–	–	–	–
New debt securities executed or purchased	1,892,446	–	–	1,892,446
Removed debt securities	(3,289,278)	–	–	(3,289,278)
EIR amortization	72,615	–	–	72,615
Exchange rate fluctuation and others	64,504	921	–	65,425
Ending balance	35,073,471	25,347	–	35,098,818

For the nine-month period ended September 30, 2023:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	37,574,459	24,508	67,336	37,666,303
Transfer to 12-month ECL	–	–	–	–
Transfer to non-credit-impaired debt securities	–	–	–	–
Transfer to credit-impaired debt securities	–	–	–	–
New debt securities executed or purchased	864,568	–	–	864,568
Removed debt securities	(1,494,533)	–	(27,986)	(1,522,519)
EIR amortization	46,591	–	–	46,591
Exchange rate fluctuation and others	168,192	263	889	169,344
Ending balance	37,159,277	24,771	40,239	37,224,287

14. PLEDGED ASSETS AND ACQUIRED COLLATERAL:

14-1 Assets pledged as collateral as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Category	September 30, 2024	December 31, 2023
Financial assets at FVTPL	Securities lent	97,855	9,936
	BOK payment	614,632	612,117
	Others	1,234,195	926,687
	Subtotal	1,946,682	1,548,740
Financial assets at FVOCI	Intraday overdraft	279,784	246,979
	Securities lent	1,266,580	1,051,270
	BOK borrowings	642,038	589,932
	Foreign currency borrowing	541,405	532,712
	BOK payment	2,702,679	4,915,988
	Futures	89,066	220,328
	Customer Repurchase Agreement	49	48
	Others	1,561,178	2,268,279
	Subtotal	7,082,779	9,825,536
Securities at AC	Intraday overdraft	374,239	403,880
	Securities lent	193,618	194,312
	BOK borrowings	3,830,819	3,317,956
	Foreign currency borrowing	800,749	801,692
	BOK payment	8,846,493	7,728,925
	Futures	327,264	192,445
	Others	1,394,297	1,427,564
	Subtotal	15,767,479	14,066,774
Total		24,796,940	25,441,050

14-2 The fair value of collateral that is available for sale and repledge, irrespective of default as of September 30, 2024, and December 31, 2023, is as follows (KRW in millions):

September 30, 2024:

Classification	Fair value of collateral	Fair value of collateral sold or repledged
Securities	13,075,286	—

December 31, 2023:

Classification	Fair value of collateral	Fair value of collateral sold or repledged
Securities	13,158,028	—

15. LOANS:

15-1 Loans as of September 30, 2024, and December 31, 2023, are as follows
(KRW in millions):

Classification	September 30, 2024	December 31, 2023
Loans		
Loans in Korean won	307,188,132	292,565,176
Loans denominated in foreign currencies	32,406,160	31,794,128
Domestic import usance	3,703,336	3,833,914
Call loans	1,830,609	1,387,914
Bills purchased in Korean won	176,464	172,864
Bills purchased denominated in foreign currencies	4,004,985	4,040,638
Advance payments on payment guarantees	7,110	10,508
Bonds purchased under resale agreement	13,876,787	13,754,130
Privately placed corporate bonds	1,075,662	1,080,096
Others	361,714	268,918
Subtotal	364,630,959	348,908,286
Addition (deduction)		
Net deferred origination fees and costs	428,804	383,467
Allowance for loan losses	(1,985,326)	(2,044,843)
Subtotal	(1,556,522)	(1,661,376)
Total	363,074,437	347,246,910

15-2 Loans by customer as of September 30, 2024, and December 31, 2023, are listed as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Corporate loans		
Large-sized businesses	56,247,656	52,615,031
Small- and medium-sized businesses	146,394,142	143,438,684
Public sector and others	25,168,699	20,928,782
Household loans	136,820,462	131,925,789
Subtotal	364,630,959	348,908,286
Addition (deduction)		
Net deferred origination fees and costs	428,804	383,467
Allowance for loan losses	(1,985,326)	(2,044,843)
Subtotal	(1,556,522)	(1,661,376)
Total	363,074,437	347,246,910

15-3 Changes in allowance for possible loan losses for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	786,713	804,525	453,605	2,044,843
Transfer to 12-month ECL	133,726	(132,000)	(1,726)	–
Transfer to non-credit-impaired loan	(71,742)	78,419	(6,677)	–
Transfer to credit-impaired loan	(9,378)	(86,720)	96,098	–
Provisions of allowance for loan losses	(63,955)	80,269	195,024	211,338
Write-offs	–	–	(288,599)	(288,599)
Disposal of non-performing loans, etc.	–	–	(73,755)	(73,755)
Recovering of loans written off	–	–	64,770	64,770
Exchange rate fluctuation and others	5,157	5,166	16,406	26,729
Ending balance (*)	780,521	749,659	455,146	1,985,326

(*) As of September 30, 2024, in order to expand loss absorption capacity in growing economic uncertainty worldwide, the Group has accumulated an additional ₩22,110 million in allowances for financial support interest and deferred repayment loans for small- and medium-sized companies and small business owners affected by COVID-19. The additional allowances include ₩16,148 million for extended maturity loans.

For the nine-month period ended September 30, 2023:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	598,922	763,949	303,746	1,666,617
Transfer to 12-month ECL	48,378	(45,668)	(2,710)	–
Transfer to non-credit-impaired loan	(175,304)	180,471	(5,167)	–
Transfer to credit-impaired loan	(5,746)	(65,143)	70,889	–
Provisions of allowance for loan losses	306,819	9,607	240,778	557,204
Write-offs	–	–	(304,587)	(304,587)
Disposal of non-performing loans, etc.	–	–	(44,174)	(44,174)
Recovering of loans written off	–	–	79,761	79,761
Exchange rate fluctuation and others	13,146	17,200	16,914	47,260
Ending balance(*)	786,215	860,416	355,450	2,002,081

(*) As of September 30, 2023, in order to expand loss absorption capacity in growing economic uncertainty worldwide, the Bank has accumulated an additional ₩40,870 million in allowances for financial support interest and deferred repayment loans for small- and medium-sized companies and small business owners affected by COVID-19. The additional allowances include ₩20,117 million in impact of Stage 2 classification of principal and interest deferred borrowers.

15-4 Changes in the carrying amounts of loans for the nine-month periods ended September 30, 2024 and 2023 are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	304,359,588	43,219,228	1,329,470	348,908,286
Transfer to 12-month ECL	6,295,770	(6,276,315)	(19,455)	–
Transfer to non-credit-impaired loan	(14,032,888)	14,079,426	(46,538)	–
Transfer to credit-impaired loan	(811,038)	(1,163,948)	1,974,986	–
Net increase (decrease)	24,745,802	(7,325,827)	(587,113)	16,832,862
Write-offs	–	–	(288,599)	(288,599)
Disposal of non-performing loans	–	–	(821,590)	(821,590)
Ending balance	320,557,234	42,532,564	1,541,161	364,630,959

Net deferred origination fees and costs are not reflected in the gross carrying amounts above.

For the nine-month period ended September 30, 2023:

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	289,447,264	41,149,957	899,399	331,496,620
Transfer to 12-month ECL	5,969,544	(5,959,669)	(9,875)	–
Transfer to non-credit-impaired loan	(13,238,401)	13,262,841	(24,440)	–
Transfer to credit-impaired loan	(685,895)	(920,689)	1,606,584	–
Net increase (decrease)	16,290,530	(4,174,670)	(368,963)	11,746,897
Write-offs	–	–	(304,587)	(304,587)
Disposal of non-performing loans	–	–	(552,335)	(552,335)
Ending balance	297,783,042	43,357,770	1,245,783	342,386,595

Net deferred origination fees and costs are not reflected in the gross carrying amounts above.

15-5 ACs before changes in contractual cash flows of loans
(contractual cash flows changed for the nine-month periods ended September 30, 2024 and 2023) for which allowances for loan losses have been at the lifetime ECL, and net gain or loss recognized based on the changes in contractual cash flows are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024	For the nine-month period ended September 30, 2023
AC before change	104,091	60,826
Allowances before change	102,270	58,669
Amount after deducting allowance	1,821	2,157
Net loss (gain) due to change	16,601	(37)

15-6 Loans whose contractual cash flows changed for which the measurement of allowance for loan losses changed from the lifetime ECL to 12-month ECL on initial recognition during the reporting period do not exist as of September 30, 2024 and December 31, 2023.

15-7 The contractual non-recoverable amount of the loans that have been fully written off as of the end of the reporting period, but is still trying to recover, is ₩3,817,692 million and ₩3,790,688 million as of September 30, 2024, and December 31, 2023, respectively.

16. DERIVATIVE INSTRUMENTS:

16-1 Details of amounts of the unsettled derivative contract and fair value of derivatives held by the Group as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Amounts of unsettled contract		Accumulated valuation gain (loss)			
	September 30, 2024	December 31, 2023	September 30, 2024		December 31, 2023	
			Assets	Liabilities	Assets	Liabilities
Currency:						
Forward	216,516,429	267,560,507	2,792,819	2,171,584	2,866,287	2,406,480
Swap	91,428,759	85,714,059	2,312,367	2,555,077	2,550,525	2,822,494
Options purchased	669,171	603,175	9,356	–	4,887	–
Options sold	488,848	448,824	–	8,761	–	4,878
Futures	987,839	1,454,147	–	–	–	–
Subtotal	310,091,046	355,780,712	5,114,542	4,735,422	5,421,699	5,233,852
Interest:						
Forward	7,379,939	5,580,919	103,222	412,524	131,737	248,528
Swap	184,485,420	180,027,865	454,661	425,161	423,790	539,156
Options purchased	24,623	53,022	–	–	–	–
Options sold	410,000	515,000	–	13,380	–	5,758
Futures	965,082	1,244,792	–	–	–	–
Subtotal	193,265,064	187,421,598	557,883	851,065	555,527	793,442
Stock:						
Forward	8,009	7,953	172	–	103	–
Swap	247,051	183,393	4,059	2,074	637	2,572
Options purchased	19,570	12,385	197	–	362	–
Options sold	406,060	358,112	–	14,533	–	12,200
Futures	92,303	27,747	–	–	–	–
Subtotal	772,993	589,590	4,428	16,607	1,102	14,772
Others:						
Credit spread adjustment	–	–	(13,318)	–	(12,456)	–
Total	504,129,103	543,791,900	5,663,535	5,603,094	5,965,872	6,042,066

16-2 Details of valuation gain (loss) of the derivatives for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024				For the nine-month period ended September 30, 2023			
	Gain		Loss		Gain		Loss	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Currency:								
Forward	(4,075,580)	2,781,881	(2,756,061)	2,220,653	2,173,373	5,526,307	1,481,620	4,012,926
Swap	(838,212)	1,065,732	(2,339,866)	1,297,486	466,240	1,421,338	1,097,573	2,733,917
Options purchased	(8,581)	7,283	–	–	4,994	10,229	5	20
Options sold	68	68	(9,217)	6,586	(106)	–	5,221	10,204
Subtotal	(4,922,305)	3,854,964	(5,105,144)	3,524,725	2,644,501	6,957,874	2,584,419	6,757,067
Interest:								
Forward	(28,254)	45,903	197,930	236,397	129,231	199,278	26,865	39,825
Swap	126,005	237,157	(34,049)	115,227	45,396	215,022	141,957	283,616
Options purchased	–	–	–	–	–	–	–	–
Options sold	91	804	147	178	115	1,004	56	176
Subtotal	97,842	283,864	164,028	351,802	174,742	415,304	168,878	323,617
Stock:								
Forward	–	24	–	–	–	–	(15)	58
Swap	857	2,637	(1,393)	2,741	2,651	4,467	(2,468)	2,648
Options purchased	–	–	(82)	223	(8)	–	(1)	–
Options sold	(832)	1,990	235	638	(2,426)	1,705	446	520
Subtotal	25	4,651	(1,240)	3,602	217	6,172	(2,038)	3,226
Others:								
Credit risk adjustment	–	–	(4,555)	862	–	–	3,483	4,895
Total	(4,824,438)	4,143,479	(4,946,911)	3,880,991	2,819,460	7,379,350	2,754,742	7,088,805

16-3 Fair value hedge

16-3-1 Details of items subject to fair value hedge as of September 30, 2024, and December 31, 2023, and fair value fluctuation for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Hedged items	Book value		Accumulated fair value adjustments		Fair value fluctuation	
		Assets	Liabilities	Assets	Liabilities	For the three-month period ended	For the nine-month period ended
Application of hedge accounting							
Interest	Depository liabilities in Korean won	-	481,697	-	(38,303)	(13,058)	(9,161)
	Depository liabilities denominated in foreign currencies	-	122,454	-	(22,702)	(8,476)	(490)
	Finance debentures denominated in Korean won	-	656,362	-	(33,638)	(4,778)	4,088
	Finance debentures denominated in foreign currencies	-	2,779,174	-	(57,966)	(93,729)	(89,950)
	Subtotal	-	4,039,687	-	(152,609)	(120,041)	(95,513)
Currency and interest	Finance debentures denominated in foreign currencies	-	706,082	-	(30,949)	(14,484)	(18,104)
Total		-	4,745,769	-	(183,558)	(134,525)	(113,617)

September 30, 2023, and December 31, 2023:

Classification	Hedged items	Book value		Accumulated fair value adjustments		Fair value fluctuation	
		Assets	Liabilities	Assets	Liabilities	For the three-month period ended	For the nine-month period ended
Application of hedge accounting							
Interest	Depository liabilities in Korean won	-	252,537	-	(47,463)	10,047	11,333
	Depository liabilities denominated in foreign currencies	-	118,642	-	(23,192)	10,656	11,475
	Finance debentures denominated in Korean won	-	100,450	-	(29,550)	5,266	4,675
	Finance debentures denominated in foreign currencies	-	2,624,293	-	(147,917)	15,691	13,291
	Subtotal	-	3,095,922	-	(248,122)	41,660	40,774
Currency and interest	Finance debentures denominated in foreign currencies	-	899,006	-	(49,053)	3,456	(772)
Total		-	3,994,928	-	(297,175)	45,116	40,002

As of September 30, 2024, and December 31, 2023, interest rate swaps or currency swaps are designated as hedging instrument, and the fair value hedge accounting is applied in order to hedge fair value fluctuation risk incurred due to interest rate fluctuations and foreign exchange rate fluctuations in finance debentures issued and depository liabilities.

16-3-2 Details of derivative instruments designated as hedging purposes and related assets and liabilities as of September 30, 2024, and December 31, 2023, and net valuation gain (loss) for the nine-month periods ended September 30, 2024, and 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Unsettled contract amounts	Accumulated valuation gain (loss)		Net valuation gain (loss)	
		Assets	Liabilities	For the three-month period ended	For the nine-month period ended
Interest:					
Interest rate swaps	4,192,296	36,338	189,025	120,032	95,452
Currency and Interest:					
Currency swaps	737,030	–	95,318	50,063	18,980
Total	4,929,326	36,338	284,343	170,095	114,432

September 30, 2023, and December 31, 2023:

Classification	Unsettled contract amounts	Accumulated valuation gain (loss)		Net valuation gain (loss)	
		Assets	Liabilities	For the three-month period ended	For the nine-month period ended
Interest:					
Interest rate swaps	3,344,044	1,723	249,662	(79,252)	(41,692)
Currency and Interest:					
Currency swaps	948,059	–	137,059	(28,920)	(13,602)
Total	4,292,103	1,723	386,721	(108,172)	(55,294)

16-3-3 Ineffective portion of gain or loss on derivatives designated as hedging instrument for the nine-month periods ended September 30, 2024 and 2023, is as follows (KRW in millions):

Classification	Ineffective portion of the hedge recognized in profit or loss for the period	
	For the nine-month period ended September 30, 2024	For the nine-month period ended September 30, 2023
Currency	(1,345)	(11)
Interest	126	11
Total	(1,219)	—

16-4 Hedges of net investment in foreign operations

16-4-1 Details of hedges of net investment in foreign operations as of September 30, 2024, and December 31, 2023, and fair value fluctuation for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Fair value fluctuation		Other comprehensive income of hedges of net investment in foreign operations
	For the three-month period ended	For the nine-month period ended	
Currency (Exchange-rate risk)	(49,546)	30,961	(95,186)

September 30, 2023, and December 31, 2023:

Classification	Fair value fluctuation		Other comprehensive income of hedges of net investment in foreign operations
	For the three-month period ended	For the nine-month period ended	
Currency (Exchange-rate risk)	21,798	70,755	(71,919)

16-4-2 Details of fair values of financial instruments designated as hedging instrument of net investment in of foreign operations as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Nominal amounts of hedging instrument	Book value		Changes in fair value recognized in other comprehensive income	
		Assets	Liabilities	For the three-month period ended	For the nine-month period ended
Currency forwards	145,845	–	1,008	(1,764)	3,250
Debentures denominated in foreign currencies	1,151,874	–	1,151,874	49,595	(29,208)
Borrowings denominated in foreign currencies	132,118	–	132,118	1,182	(5,531)
Total	1,429,837	–	1,285,000	49,013	(31,489)

September 30, 2023, and December 31, 2023:

Classification	Nominal amounts of hedging instrument	Book value		Changes in fair value recognized in other comprehensive income	
		Assets	Liabilities	For the three-month period ended	For the nine-month period ended
Currency forwards	142,507	–	4,258	6,147	1,655
Debentures denominated in foreign currencies	1,126,834	–	1,126,833	(25,424)	(66,649)
Borrowings denominated in foreign currencies	126,588	–	126,588	(2,254)	(4,320)
Total	1,395,929	–	1,257,679	(21,531)	(69,314)

16-4-3 Details of gain (loss) on valuation of net investment hedges of foreign operations as of September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Other comprehensive income (loss)	Recognized as profit or loss for ineffective part of risk	Account subject including the ineffective part	Reclassified amount to profit or loss from foreign currency conversion reserves
Risk of net investment in foreign operations	(31,612)	123	—	—

For the nine-month period ended September 30, 2023:

Classification	Other comprehensive income (loss)	Recognized as profit or loss for ineffective part of risk	Account subject including the ineffective part	Reclassified amount to profit or loss from foreign currency conversion reserves
Risk of net investment in foreign operations	(69,314)	—	—	—

16-5 Average hedging ratios of future nominal cash flows by the type of risk hedge as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	1 year	2 years	3 years	4 years	5 years	More than 5 years	Total
Fair value hedge							
Nominal amounts of hedging instrument	395,880	737,030	1,979,400	–	395,880	1,421,136	4,929,326
Average hedging ratio	100.49%	99.81%	100.32%	–	100.32%	100.00%	100.16%
Hedge of net investment in foreign operations							
Nominal amounts of hedging instrument	660,468	211,785	199,260	–	358,324	–	1,429,837
Average hedging ratio	100.00%	100.00%	100.00%	–	100.00%	–	100.00%

December 31, 2023:

Classification	1 year	2 years	3 years	4 years	5 years	More than 5 years	Total
Fair value hedge							
Nominal amounts of hedging instrument	1,395,224	–	1,486,935	773,640	–	636,304	4,292,103
Average hedging ratio	100.38%	–	100.01%	100.42%	–	100.00%	100.20%
Hedge of net investment in foreign operations							
Nominal amounts of hedging instrument	996,265	–	399,664	–	–	–	1,395,929
Average hedging ratio	100.00%	–	100.00%	–	–	–	100.00%

17. INVESTMENTS IN SUBSIDIARIES AND ASSOCIATES:

17-1 Details of investments in associates and a joint venture as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Type	Country	Industry	Reporting date	Ownership (%)		Book value	
					September 30, 2024	December 31, 2023	September 30, 2024	December 31, 2023
Bank of Jilin (*1)	Associates	China	Bank	2024.09.30	10.58	10.76	978,171	896,961
Hana Equity Partners I, L.P	Associates	Korea	Other financial services	–	–	29.97	–	95
Korea Credit Bureau (*1)	Associates	Korea	Credit investigation and collection agency	2024.09.30	9.00	9.00	8,073	6,162
Templeton Hana Asset Management(*1)	Associates	Korea	Asset management company	2024.09.30	9.90	9.90	1,458	1,425
OM International financing leases	Associates	China	Other financial services	2024.09.30	25.00	25.00	540	540
Beijing Langzi Asset Management (*1)	Associates	China	Credit financial business	2024.09.30	12.89	12.89	60,698	58,491
Somesevit Corporation (*1)(*2)	Associates	Korea	Construction	2024.09.30	1.92	1.92	–	–
Midan City Development Co., Ltd. (*1)(*2)(*3)	Associates	Korea	Construction	2018.03.31	2.17	2.17	–	–
Company K Startup Winwin Fund	Associates	Korea	Investment	2024.09.30	23.81	23.81	1,769	1,730
BSK-6 Patent Technology Investment Association	Associates	Korea	Investment	2024.09.30	20.00	20.00	1,528	2,514
Hana – KVIC Unicorn Fund of Funds (*4)	Associates	Korea	Investment	2024.09.30	90.91	90.91	86,802	94,542
Harvest Private Equity Fund Specializing in Start-Up and Venture Business	Associates	Korea	Investment	2024.09.30	27.27	27.27	905	1,402
Bank for Investment and Development of Vietnam ("BIDV") (*1)	Associates	Vietnam	Bank	2024.09.30	15.00	15.00	1,857,823	1,748,883
Hana Micro Finance Ltd.	Associates	Myanmar	Other financial services	2024.09.30	25.00	25.00	14,339	16,015
Horizon Private Equity Fund	Associates	Korea	Investment	2024.09.30	22.40	22.40	30,341	30,102
Hana Ventures No.7 New Technology Business Investment Association	Associates	Korea	Investment	2024.09.30	27.27	27.27	645	668
TossBank Corp.(*1)	Associates	Korea	Bank	2024.09.30	8.96	8.99	154,618	146,900
Sinsa Station area Complex Development PFV Co., Ltd.(*1)(*2)	Associates	Korea	Other development supply	2024.09.30	9.00	9.00	–	–
Hana-Capstone AI Platform Fund	Associates	Korea	Other financial services	2024.09.30	36.54	36.54	28,000	29,404
Taurus Cloud Fund	Associates	Korea	Other financial services	2024.09.30	27.06	27.06	9,807	9,747
Cheongna Medipolis PFV Co., Ltd. (*1)	Associates	Korea	Real estate development and supply	2024.09.30	10.10	10.10	17,198	17,373
NPX-Welcome Metaverse Contents Fund	Associates	Korea	Other financial services	2024.09.30	25.00	25.00	939	956
Hana Beyond Finance Fund	Associates	Korea	Other financial services	2024.09.30	26.67	26.67	36,438	36,422
Hana PropTech New Technology Business Investment Association (*4)	Associates	Korea	Other financial services	2024.09.30	88.24	88.24	2,909	2,956
Union No.2 New Technology Financial Investment Association	Associates	Korea	Other financial services	2024.09.30	29.63	29.63	3,316	1,090
Artificial Photosynthesis Research Institute Co., Ltd	Associates	Korea	Natural science and engineering research and development	2024.09.30	36.24	36.24	1,543	1,595
KEB Hana stay No.1 Consignment Management Real Estate Investment Company (*1)(*3)	Associates	Korea	Real estate development and supply	2024.06.30	14.86	14.86	3,755	4,082
Mashup Angels No.2 Valuation Development Venture Investment Association	Associates	Korea	Other financial services	2024.09.30	21.82	21.82	1,099	1,173
Bitgo Korea Co., Ltd.	Associates	Korea	Other information services	2024.09.30	14.99	–	1,480	–
Hana WISH Value Growth Fund	Associates	Korea	Other financial services	2024.09.30	45.00	–	1,777	–

Classification	Type	Country	Industry	Reporting date	Ownership (%)		Book value	
					September 30, 2024	December 31, 2023	September 30, 2024	December 31, 2023
All Together Korea Fund 5 (*4)	Associates	Korea	Other financial services	2024.09.30	100.00	100.00	10,775	10,541
Growth Finance Hana Corporate Growth General Private Investment Trust (*4)	Associates	Korea	Other financial services	2024.09.30	90.00	90.00	40,934	28,430
Defense Technology Innovation General Private Investment Trust (*4)	Associates	Korea	Other financial services	2024.09.30	98.33	98.33	9,413	8,664
Hana 1Q short-term financial bond active (*6)	Associates	Korea	Other financial services	–	–	45.21	–	61,152
Hana 1Q 25-08 Corporate Bond (A+ or higher) Active (*7)	Associates	Korea	Other financial services	2024.09.30	46.69	49.26	53,092	51,232
Shinjin International Corporation (*2)(*3)	Associates	Korea	Manufacturing	2023.12.31	24.20	24.20	–	–
KG Fashion Co., Ltd. (*2)(*3)	Associates	Korea	Wholesale and retail	2023.12.31	20.55	20.55	–	–
PT Sinarmas Hana Finance (*5)	Joint Venture	Indonesia	Financial services	2024.09.30	30.00	30.00	8,443	8,905
Total							3,428,628	3,280,152

(*1) These companies were included in investment in associates because the Group has significant influence over them by participating in the board of directors' meeting, the decision-making organization.

(*2) As of September 30, 2024, the application of the equity method has been suspended because the balance of the investment account is below "0."

(*3) As the interim consolidated financial statements as of September 30, 2024, could not be obtained, the most recent interim consolidated financial statements available from the closing date were used. The effect of significant transactions or events incurred between the end of the reporting period of the associate and that of the Group was reviewed and reflected.

(*4) As of September 30, 2024, the Group classified the investee as an associate investment stock because it could not exercise control over the investee.

(*5) Since more than one investor must act together to direct related activities, the equity method was applied because the Group could not control the investee individually.

(*6) The company name has been changed from KTOP Short-Term Financial Bond Active.

(*7) The company name has been changed from KTOP 25-08 Corporate Bonds (A+ or higher) Active.

17-2 Condensed consolidated financial statements as of and for the periods ended September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)	Dividends received
Bank of Jilin	136,006,652	126,967,100	9,039,552	4,367,295	382,140	411,602	–
Korea Credit Bureau	152,948	69,310	83,638	129,607	21,913	21,913	90
Templeton Hana Asset Management	20,690	5,961	14,729	11,630	4,382	4,382	396
CM International financing leases	1,438,981	1,461,935	(22,954)	8,159	(28,645)	(27,981)	–
Beijing Langzi Asset Management	488,564	12,757	475,807	22,562	9,898	9,859	1,215
Somesevit Corporation	35,776	122,348	(86,572)	5,458	(2,736)	(2,736)	–
Midan City Development Co., Ltd.	662,631	686,733	(24,102)	–	–	–	–
Company K Startup Winwin Fund	7,431	–	7,431	3,420	3,255	3,255	590
BSK-6 Patent Technology Investment Association	8,829	1,189	7,640	2,524	2,371	1,837	–
Hana – KVIC Unicorn Fund of Funds	95,758	277	95,481	700	(1,322)	(1,954)	–
Harvest Private Equity Fund Specializing in Start-Up and Venture Business	3,326	6	3,320	–	231	231	–
BIDV (*1)	138,850,651	130,763,653	8,086,998	6,786,399	629,699	624,239	–
Hana Micro Finance Ltd.	125,696	63,071	62,625	17,123	(9,119)	(6,704)	–
Horizon Private Equity Fund	140,199	4,749	135,450	–	(2,134)	(2,134)	–
Hana Ventures No.7 New Technology Business Investment Association	2,364	–	2,364	1	(86)	(86)	–
TossBank Corp.	30,102,340	28,502,320	1,600,020	1,255,119	34,387	79,727	–
Sinsa Station area Complex Development PFV Co., Ltd.	268,350	267,920	430	–	(1,683)	(1,683)	–
Hana-Capstone AI Platform Fund	76,941	314	76,627	72	(1,093)	(1,093)	–
Taurus Cloud Fund	35,914	52	35,862	–	(171)	(171)	–
Cheongna Medipolis PFV Co., Ltd.	170,129	108	170,021	–	(1,731)	(1,731)	–
NPX-Welcome Metaverse Contents Fund	3,756	–	3,756	1	(67)	(67)	–
Hana Beyond Finance Fund	136,643	–	136,643	37,351	34,896	34,896	–
Hana Proptech New Technology Business Investment Association	3,296	–	3,296	1	(54)	(54)	–
Union No.2 New Technology Financial Investment Association	11,392	197	11,195	9	(586)	(586)	–
Artificial Photosynthesis Research Institute Co., Ltd.	4,218	–	4,218	–	(238)	(238)	–
KEB Hana Stay No.1 Consignment Management Real Estate Investment Company	135,482	91,793	43,689	2,642	(2,202)	(2,202)	–
Mashup Angels No.2 Valuation Development Venture Investment Association	5,041	–	5,041	–	(345)	(345)	–
Bitgo Korea Co., Ltd.	5,980	27	5,953	–	(194)	(194)	–
Hana WISH Value Growth Fund	3,949	–	3,949	–	(51)	(51)	–
All Together Korea Fund 5	10,777	1	10,776	232	228	228	315
Growth Finance Hana Corporate Growth General Private Investment Trust	47,067	91	46,976	194	35	35	–
Defense Technology Innovation General Private Investment Trust	10,029	165	9,864	13	(146)	(146)	–
Hana 1Q 25-08 Corporate Bond (A+ or higher) Active	123,818	10,835	112,983	5,797	3,362	3,362	–

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)	Dividends received
Shinjin International Corporation	135	9,602	(9,467)	22	(207)	(207)	-
KG Fashion co., Ltd.	2,439	2,890	(451)	1,033	(557)	(557)	-
PT Sinarmas Hana Finance	143,281	115,687	27,594	12,233	(2,882)	(2,882)	-

(*) This is financial information that reflects Purchase Price Allocation ("PPA") valuation and Generally Accepted Accounting Principles ("GAAP") adjustments in the financial information of BIDV.

December 31, 2023:

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)	Dividends received
Bank of Jilin	118,285,793	110,043,991	8,241,802	4,842,002	403,240	407,432	13,864
Hana Equity Partners I, L.P.	320	5	315	4	(1)	(1)	-
Korea Credit Bureau	131,164	68,756	62,408	163,707	8,012	8,012	90
Templeton Hana Asset Management Co., Ltd.	20,261	5,862	14,399	8,068	2,556	2,556	396
CM International financing leases	1,440,757	1,407,320	33,437	14,465	16,399	15,439	-
Beijing Langzi Asset Management Co., Ltd.	487,591	26,865	460,726	33,829	23,694	23,908	1,178
Somesevit Corporation	37,277	121,113	(83,836)	7,076	(4,313)	(4,313)	-
Midan City Development Co., Ltd.	662,631	686,733	(24,102)	-	-	-	-
Company K Startup Winwin Fund	7,267	-	7,267	841	754	834	-
BSK-6 Patent Technology Investment Association	13,542	974	12,568	2,868	2,099	929	-
Hana - KVIC Unicorn Fund of Funds	104,375	379	103,996	1,933	1,554	2,527	-
Harvest Private Equity Fund Specializing in Start-Up and Venture Business	5,142	-	5,142	45	3,580	3,580	14
BIDV (*1)	123,349,695	115,974,974	7,374,721	10,117,882	818,792	846,650	-
Hana Micro Finance Ltd.	135,926	66,598	69,328	23,102	(9,826)	(8,813)	-
Horizon Private Equity Fund	137,079	2,694	134,385	88	(12,590)	(12,590)	8,777
Hana Ventures No.7 New Technology Business Investment Association	2,477	28	2,449	5	(2,808)	(2,808)	-
TossBank Corp.	25,738,679	24,230,274	1,508,405	1,260,974	(15,959)	71,837	-
Sinsa Station area Complex Development PFV Co., Ltd.	252,435	249,046	3,389	-	(723)	(723)	-
Hana-Capstone AI Platform Fund	80,910	440	80,470	4,754	321	321	-
Taurus Cloud Fund	35,751	3	35,748	-	(169)	(169)	-
Cheongna Medipolis PFV Co., Ltd.	188,434	16,682	171,752	-	(6,966)	(6,966)	-
NPX-Welcome Metaverse Contents Fund	3,824	-	3,824	1	(88)	(88)	-
Hana Beyond Finance Fund	137,337	756	136,581	24,230	21,134	21,134	-
Hana PropTech New Technology Business Investment Association	3,350	-	3,350	1	(50)	(50)	-
Union No.2 New Technology Financial Investment Association	3,879	198	3,681	6	(369)	(369)	-
Artificial Photosynthesis Research Institute Co., Ltd.	4,362	-	4,362	-	(207)	(207)	-
KEB Hana stay No.1 Consignment Management Real Estate Investment Company	127,283	81,392	45,891	1,744	7,398	7,398	-
Mashup Angels No.2 Valuation Development Venture Investment	5,378	-	5,378	-	(122)	(122)	-
All Together Korea Fund 5	10,543	1	10,542	227	222	222	210
Growth Finance Hana Corporate Growth General Private Investment Trust	32,049	107	31,942	148	(10)	(10)	-
Defense Technology Innovation General Private Investment Trust	8,816	5	8,811	25	(186)	(186)	-
KTOP short-term financial bond active	173,025	38,048	134,977	3,103	2,276	2,276	-
KTOP 25-08 Corporate Bond (A+ or higher) Active	102,761	27	102,734	1,527	1,233	1,233	-
Shinjin International Corporation	158	9,418	(9,260)	241	37	37	-
KG Fashion co., Ltd.	3,042	2,936	106	3,241	(190)	(190)	-
PT Sinarma Hana Finance	127,869	98,224	29,645	19,165	467	467	-

(*) This is financial information that reflects PPA valuation and GAAP adjustments in the financial information of BIDV.

17-3 Changes in the investment in an associate and a joint venture for the nine-month periods ended September 30, 2024 and 2023, are as follows
(KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Beginning balance	Acquisition	Dividend	Book value before valuation	Equity method valuation		Others	Disposal	Ending balance
					Share of profit (loss)	Changes in equity			
Bank of Jilin	896,961	-	-	896,961	45,246	36,196	(232)	-	978,171
Hana Equity Partners I, L.P.	95	-	-	95	-	-	(65)	(30)	-
Korea Credit Bureau	6,162	-	(90)	6,072	2,001	-	-	-	8,073
Templeton Hana Asset Management Co., Ltd.	1,425	-	(396)	1,029	429	-	-	-	1,458
CM International financing leases	540	-	-	540	-	-	-	-	540
Beijing Langzi Asset Management Co., Ltd.	58,491	-	(1,215)	57,276	1,214	2,208	-	-	60,698
Somesevit Corporation	-	-	-	-	-	-	-	-	-
Midan City Development Co., Ltd.	-	-	-	-	-	-	-	-	-
Company K Startup Winwin Fund	1,730	-	(590)	1,140	829	-	-	(200)	1,769
BSK-6 Patent Technology Investment Association	2,514	-	-	2,514	76	(107)	-	(955)	1,528
Hana - KVIC Unicorn Fund of Funds	94,542	-	-	94,542	(1,165)	(575)	-	(6,000)	86,802
Harvest Private Equity Fund Specializing in Start-Up and Venture Business	1,402	-	-	1,402	63	-	-	(560)	905
BIDV (*1)	1,748,883	-	-	1,748,883	94,455	14,485	-	-	1,857,823
Hana Micro Finance Ltd.	16,015	-	-	16,015	(2,280)	604	-	-	14,339
Horizon Private Equity Fund	30,102	-	-	30,102	(478)	717	-	-	30,341
Hana Ventures No.7 New Technology Business Investment Association	668	-	-	668	(23)	-	-	-	645
TossBank Corp.	146,900	-	-	146,900	2,951	4,225	542	-	154,618
Sinsa Station area Complex Development PFV Co., Ltd.	-	-	-	-	-	-	-	-	-
Hana-Capstone AI Platform Fund	29,404	-	-	29,404	(1,404)	-	-	-	28,000
Taurus Cloud Fund	9,747	68	-	9,815	(8)	-	-	-	9,807
Cheongna Medipolis PFV Co., Ltd.	17,373	-	-	17,373	(175)	-	-	-	17,198
NPX-Welcome Metaverse Contents Fund	956	-	-	956	(17)	-	-	-	939
Hana Beyond Finance Fund	36,422	8,000	-	44,422	9,306	-	-	(17,290)	36,438
Hana PropTech New Technology Business Investment Association	2,956	-	-	2,956	(47)	-	-	-	2,909
Union No.2 New Technology Financial Investment Association	1,090	2,400	-	3,490	(174)	-	-	-	3,316
Artificial Photosynthesis Research Institute Co., Ltd.	1,595	-	-	1,595	(52)	-	-	-	1,543
KEB Hana Stay No.1 Consignment Management Real Estate Investment Company	4,082	-	-	4,082	(327)	-	-	-	3,755
Mashup Angels No.2 Valuation Development Venture Investment	1,173	-	-	1,173	(74)	-	-	-	1,099
Bitgo Korea Co., Ltd.	-	1,499	-	1,499	(19)	-	-	-	1,480
Hana WISH Value Growth Fund	-	1,800	-	1,800	(23)	-	-	-	1,777
All Together Korea Fund 5	10,541	315	(315)	10,541	234	-	-	-	10,775
Growth Finance Hana Corporate Growth									

Classification	Beginning balance	Acquisition	Dividend	Book value before valuation	Equity method valuation		Others	Disposal	Ending balance
					Share of profit (loss)	Changes in equity			
General Private Investment Trust	28,430	13,500	–	41,930	(996)	–	–	–	40,934
Defense Technology Innovation General Private Investment Trust	8,664	1,180	–	9,844	(431)	–	–	–	9,413
Hana 1Q short-term financial bond active	61,152	–	–	61,152	659	–	534	(62,345)	–
Hana 1Q 25-08 Corporate Bond (A+ or higher) Active	51,232	–	–	51,232	1,860	–	–	–	53,092
Shinjin International Corporation	–	–	–	–	–	–	–	–	–
KG Fashion co., Ltd.	–	–	–	–	–	–	–	–	–
PT Sinarma Hana Finance	8,905	–	–	8,905	(827)	–	365	–	8,443
Total	3,280,152	28,762	(2,606)	3,306,308	150,803	57,753	1,144	(87,380)	3,428,628

For the nine-month period ended September 30, 2023:

Classification	Beginning balance	Acquisition	Dividend	Book value before valuation	Equity method valuation		Others	Disposal	Ending balance
					Share of profit (loss)	Changes in equity			
Bank of Jilin	877,491	-	(13,864)	863,627	29,546	9,641	(2,309)	-	900,505
Hana No.1 Private Equity	95	-	-	95	-	-	-	-	95
Korea Credit Bureau	5,503	-	(90)	5,413	1,876	-	-	-	7,289
Templeton Hana Asset Management Co., Ltd.	1,387	-	(396)	991	373	-	-	-	1,364
CM International financing leases	1,629	-	-	1,629	-	-	-	-	1,629
Beijing Langzi Asset Management	56,805	-	(1,178)	55,627	2,705	645	-	-	58,977
Somesevit Corporation	-	-	-	-	-	-	-	-	-
Midan City Development Co., Ltd.	-	-	-	-	-	-	-	-	-
Company K Startup Winwin Fund	2,355	-	-	2,355	(271)	19	-	-	2,103
BSK-6 Patent Technology Investment Association	2,748	-	-	2,748	129	(100)	-	(409)	2,368
Hana - KVIC Unicorn Fund of Funds	98,244	-	-	98,244	1,483	344	-	(6,000)	94,071
Harvest Private Equity Fund Specializing in Start-Up and Venture Business	2,805	-	(14)	2,791	1,019	-	-	(2,364)	1,446
BIDV	1,641,419	-	-	1,641,419	78,951	46,836	-	-	1,767,206
Hana Micro Finance Ltd.	18,199	-	-	18,199	(2,562)	1,101	-	-	16,738
Horizon Private Equity Fund	49,491	-	-	49,491	(384)	3,014	-	-	52,121
Hana Ventures No.7 New Technology Business Investment Association	1,434	-	-	1,434	(758)	-	-	-	676
TossBank Corp.	87,566	8,877	-	96,443	(4,298)	5,977	2,941	-	101,063
Sinsa Station area Complex Development PFV Co., Ltd.	365	-	-	365	(45)	-	-	-	320
Hana-Capstone AI Platform Fund	29,287	-	-	29,287	440	-	-	-	29,727
Taurus Cloud Fund	9,416	68	-	9,484	255	-	-	-	9,739
Cheongna Medipolis PFV Co., Ltd.	1,712	16,628	-	18,340	(594)	(81)	-	-	17,665
NPX-Welcome Metaverse Contents Fund	978	-	-	978	(17)	-	-	-	961
Hana Beyond Finance Fund	23,507	-	-	23,507	2,866	-	-	(721)	25,652
Hana Proptech New Technology Business Investment Association	-	3,000	-	3,000	(28)	-	-	-	2,972
Union No.2 New Technology Financial Investment Association	-	1,200	-	1,200	(52)	-	-	-	1,148
Artificial Photosynthesis Research Institute Co., Ltd.	-	1,666	-	1,666	-	-	-	-	1,666
KEB Hana Stay No.1 Consignment Management Real Estate Investment Company	-	4,734	-	4,734	-	-	-	-	4,734
All Together Korea Fund 5	10,245	210	(210)	10,245	218	-	-	-	10,463
Growth Finance Hana Corporate Growth General Private Investment Trust	24,029	4,500	-	28,529	(341)	-	-	-	28,188
Defense Technology Innovation General Private Investment Trust	2,948	1,475	-	4,423	(116)	-	-	-	4,307
Shinjin International Corporation	-	-	-	-	-	-	-	-	-
KG Fashion co., Ltd.	-	-	-	-	-	-	-	-	-
PT Sinarmas Hana Finance	8,630	-	-	8,630	156	-	631	-	9,417
Total	2,958,268	42,358	(15,752)	2,984,894	110,551	67,396	1,263	(9,494)	3,154,610

17-4 The Group discontinued recognizing its losses in shares since the balance of investments in associates was "0", and the losses that are accumulated for the periods ended September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Company	Unrecognized amount of changes in equity	Accumulated unrecognized amount of changes in equity
Somesevit Corporation	(52)	(1,662)
Midan City Development Co., Ltd.	—	(523)
Shinjin International Corporation	(50)	(33)
KG Fashion Co., Ltd.	(114)	(207)
Sinsa Station Area Complex Development PFV Co., Ltd.	(266)	(266)
Total	(482)	(2,691)

December 31, 2023:

Company	Unrecognized amount of changes in equity	Accumulated unrecognized amount of changes in equity
Somesevit Corporation	(83)	(1,610)
Midan City Development Co., Ltd.	—	(523)
Shinjin International Corporation	9	17
KG Fashion Co., Ltd.	(39)	(93)
Total	(113)	(2,209)

17-5 Details of adjustments from net assets of associates and a joint venture to carrying values of shares as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Net assets	Ownership (%)	Share of net assets	Goodwill, etc.	Carrying value
Bank of Jilin	9,039,552	10.58	956,385	21,786	978,171
Korea Credit Bureau	83,638	9.00	7,527	546	8,073
Templeton Hana Asset Management	14,729	9.90	1,458	–	1,458
CM International financing leases	(22,954)	25.00	(5,739)	6,279	540
Beijing Langzi Asset Management	475,807	12.89	61,332	(634)	60,698
Somesevit Corporation	(86,572)	1.92	(1,662)	1,662	–
Midan City Development Co., Ltd.	(24,102)	2.17	(523)	523	–
Company K Startup Winwin Fund	7,431	23.81	1,768	1	1,769
BSK-6 Patent Technology Investment Association	7,640	20.00	1,528	–	1,528
Hana – KVIC Unicorn Fund of Funds	95,481	90.91	86,801	1	86,802
Harvest Private Equity Fund Specializing in Start-Up and Venture Business	3,320	27.27	905	–	905
BIDV	8,086,998	15.00	1,213,050	644,773	1,857,823
Hana Micro Finance Ltd.	62,625	25.00	15,656	(1,317)	14,339
Horizon Private Equity Fund	135,450	22.40	30,341	–	30,341
Hana Ventures No.7 New Technology Business Investment Association	2,364	27.27	645	–	645
TossBank Corp.	1,600,020	8.96	143,338	11,280	154,618
Sinsa Station area Complex Development PFV Co., Ltd.	430	9.00	39	(39)	–
Hana-Capstone AI Platform Fund	76,627	36.54	28,000	–	28,000
Taurus Cloud Fund	35,862	27.06	9,704	103	9,807
Cheongna Medipolis PFV Co., Ltd.	170,021	10.10	17,172	26	17,198
NPX-Welcome Metaverse Contents Fund	3,756	25.00	939	–	939
Hana Beyond Finance Fund	136,643	26.67	36,443	(5)	36,438
Hana Proptech New Technology Business Investment Association	3,296	88.24	2,908	1	2,909
Union No.2 New Technology Financial Investment Association	11,195	29.63	3,316	–	3,316
Artificial Photosynthesis Research Institute Co., Ltd	4,218	36.24	1,529	14	1,543
KEB Hana stay No.1 Consignment Management Real Estate Investment Company	43,689	14.86	6,492	(2,737)	3,755
Mashup Angels No.2 Valuation Development Venture Investment	5,041	21.82	1,100	(1)	1,099
Bitgo Korea Co., Ltd.	5,953	14.99	892	588	1,480
Hana WISH Value Growth Fund	3,949	45.00	1,777	–	1,777
All Together Korea Fund 5	10,776	100.00	10,775	–	10,775
Growth Finance Hana Corporate Growth General Private	46,976	90.00	42,278	(1,344)	40,934

Classification	Net assets	Ownership (%)	Share of net assets	Goodwill, etc.	Carrying value
Investment Trust					
Defense Technology Innovation General Private Investment Trust	9,864	98.33	9,700	(287)	9,413
Hana 1Q 25-08 Corporate Bond (A+ or higher) Active	112,983	46.69	52,746	346	53,092
Shinjin International Corporation	(9,467)	24.20	(2,291)	2,291	–
KG Fashion Co., Ltd.	(451)	20.55	(93)	93	–
PT Sinarmas Hana Finance	27,594	30.00	8,278	165	8,443

December 31, 2023:

Classification	Net assets	Ownership (%)	Share of net assets	Goodwill, etc.	Carrying value
Bank of Jilin	8,241,802	10.76	886,818	10,143	896,961
Hana Equity Partners I, L.P.	315	29.97	95	–	95
Korea Credit Bureau	62,408	9.00	5,618	544	6,162
Templeton Hana Asset Management Co., Ltd.	14,399	9.90	1,425	–	1,425
CM International financing leases	33,437	25.00	8,359	(7,819)	540
Beijing Langzi Asset Management Co., Ltd.	460,726	12.89	59,388	(897)	58,491
Somesevit Corporation	(83,836)	1.92	(1,610)	1,610	–
Midan City Development Co., Ltd.	(24,102)	2.17	(523)	523	–
Company K Startup Winwin Fund	7,267	23.81	1,730	–	1,730
BSK-6 Patent Technology Investment Association	12,568	20.00	2,514	–	2,514
Hana – KVIC Unicorn Fund of Funds	103,996	90.91	94,542	–	94,542
Harvest Private Equity Fund Specializing in Start-Up and Venture Business	5,142	27.27	1,402	–	1,402
BIDV (*1)	7,374,721	15.00	1,106,209	642,674	1,748,883
Hana Micro Finance Ltd.	69,328	25.00	17,333	(1,318)	16,015
Horizon Private Equity Fund	134,385	22.40	30,102	–	30,102
Hana Ventures No.7 New Technology Business Investment Association	2,449	27.27	668	–	668
TossBank Corp.	1,508,405	8.99	135,606	11,294	146,900
Sinsa Station area Complex Development PFV Co., Ltd.	3,389	9.00	305	(305)	–
Hana-Capstone AI Platform Fund	80,470	36.54	29,404	–	29,404
Taurus Cloud Fund	35,748	27.06	9,673	74	9,747
Cheongna Medipolis PFV Co., Ltd.	171,752	10.10	17,347	26	17,373
NPX-Welcome Metaverse Contents Fund	3,824	25.00	956	–	956
Hana Beyond Finance Fund	136,581	26.67	36,422	–	36,422
Hana Proptech New Technology Business Investment Association	3,350	88.24	2,956	–	2,956
Union No.2 New Technology Financial Investment Association	3,681	29.63	1,090	–	1,090
Artificial Photosynthesis Research Institute Co., Ltd.	4,362	36.24	1,581	14	1,595
KEB Hana stay No.1 Consignment Management Real Estate Investment Company	45,891	14.86	6,819	(2,737)	4,082
Mashup Angels No.2 Valuation Development Venture Investment	5,378	21.82	1,173	–	1,173

Classification	Net assets	Ownership (%)	Share of net assets	Goodwill, etc.	Carrying value
All Together Korea Fund 5	10,542	100.00	10,541	–	10,541
Growth Finance Hana Corporate Growth General Private Investment Trust	31,942	90.00	28,748	(318)	28,430
Defense Technology Innovation General Private Investment Trust	8,811	98.33	8,664	–	8,664
KTOP short-term financial bond active	134,977	45.21	61,023	129	61,152
KTOP 25-08 Corporate Bond (A+ or higher) Active	102,734	49.26	50,607	625	51,232
Shinjin International Corporation	(9,260)	24.20	(2,241)	2,241	–
KG Fashion co., Ltd.	106	20.55	22	(22)	–
PT Sinarmas Hana Finance	29,645	30.00	8,894	11	8,905

17-6 Details of investment shares in marketable associates and a joint venture as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Company	Market Price	Price per share (In Korean won)
BIDV	2,277,826	2,664

December 31, 2023:

Company	Market Price	Price per share (In Korean won)
BIDV	1,974,243	2,309

17-7 The company that the Group holds more than 20% of shares, but is excluded from investments in associates as of September 30, 2024, and December 31, 2023, is as follows:

December 31, 2023:

Classification	Country	Industry	Ownership (%)
Color Art Corp.(*)	Korea	Sign and advertisement manufacturing	20.93

(*) The company has been excluded from investments in associates as of December 31, 2023, since the influence on related activities is limited due to the corporate rehabilitation.

There are no companies that the Group holds more than 20% of shares, but excluded from investments in associates as of September 30, 2024. Meanwhile, investment trusts whose significant influence on related activities is limited by trust contracts are excluded from investment stocks in associates.

18. PROPERTY, PLANT AND EQUIPMENT:

18-1 Property, plant and equipment as of September 30, 2024, and December 31, 2023, consist of the following (KRW in millions):

September 30, 2024:

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	865,598	–	(3,786)	–	861,812
Buildings	1,004,070	(350,377)	(10,203)	–	643,490
Leasehold improvements	365,174	(288,178)	–	–	76,996
Equipment and vehicles	985,873	(796,531)	–	(25)	189,317
Construction in progress	11,806	–	–	–	11,806
Others	31,258	–	–	–	31,258
Right-of-use assets – real estate	1,512,932	(740,232)	–	–	772,700
Right-of-use assets – equipment and vehicles	30,379	(15,370)	–	–	15,009
Right-of-use assets – others	5,641	(3,238)	–	–	2,403
Total	4,812,731	(2,193,926)	(13,989)	(25)	2,604,791

December 31, 2023:

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	873,584	–	(3,786)	–	869,798
Buildings	988,291	(325,864)	(10,203)	–	652,224
Leasehold improvements	340,431	(274,428)	–	–	66,003
Equipment and vehicles	936,718	(736,238)	–	(43)	200,437
Construction in progress	10,484	–	–	–	10,484
Others	31,258	–	–	–	31,258
Right-of-use assets – real estate	1,409,240	(843,956)	–	–	565,284
Right-of-use assets – equipment and vehicles	30,507	(14,472)	–	–	16,035
Right-of-use assets – others	6,043	(2,356)	–	–	3,687
Total	4,626,556	(2,197,314)	(13,989)	(43)	2,415,210

18-2 Changes in property, plant and equipment for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Beginning balance	Acquisition	Disposal	Depreciation	Transfers	Impairment loss	Others	Ending balance
Land	869,798	744	(3,206)	–	(5,563)	–	39	861,812
Buildings	652,224	27,880	(75)	(27,759)	(8,968)	–	188	643,490
Leasehold improvements	66,003	30,151	(355)	(19,114)	–	–	311	76,996
Equipment and vehicles	200,480	63,604	(441)	(73,816)	2	(11)	(476)	189,342
Construction in progress	10,484	8,600	–	–	(5,433)	–	(1,845)	11,806
Others	31,258	–	–	–	–	–	–	31,258
Government grants	(43)	–	–	18	–	–	–	(25)
Right-of-use assets – real estate	565,284	371,953	(6,868)	(159,728)	–	–	2,059	772,700
Right-of-use assets – equipment and vehicles	16,035	5,500	(675)	(6,260)	–	–	409	15,009
Right-of-use assets – others	3,687	–	–	(1,317)	–	–	33	2,403
Total	2,415,210	508,432	(11,620)	(287,976)	(19,962)	(11)	718	2,604,791

For the nine-month period ended September 30, 2023:

Classification	Beginning balance	Acquisition	Disposal	Depreciation	Transfers	Others	Ending balance
Land	876,606	42	–	–	(7,453)	64	869,259
Buildings	649,857	21,108	(117)	(25,320)	(10,597)	107	635,038
Leasehold improvements	61,053	20,114	(221)	(17,295)	–	367	64,018
Equipment and vehicles	143,863	102,113	(355)	(62,821)	547	418	183,765
Construction in progress	8,511	10,417	–	–	(1,880)	(2,109)	14,939
Others	31,258	–	–	–	–	–	31,258
Government grants	(78)	–	–	26	–	–	(52)
Right-of-use assets – real estate	635,052	109,985	(4,676)	(164,361)	–	8,377	584,377
Right-of-use assets – equipment and vehicles	15,193	6,459	(748)	(5,800)	–	266	15,370
Right-of-use assets – others	4,699	838	(496)	(1,197)	–	298	4,142
Total	2,426,014	271,076	(6,613)	(276,768)	(19,383)	7,788	2,402,114

19. INVESTMENT PROPERTY:

19-1 Details of investment property as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	464,884	–	(3,125)	–	461,759
Buildings	396,602	(183,193)	(1,225)	(1,169)	211,015
Total	861,486	(183,193)	(4,350)	(1,169)	672,774

December 31, 2023:

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	467,073	–	(3,125)	–	463,948
Buildings	386,860	(172,175)	(1,225)	(1,885)	211,575
Total	853,933	(172,175)	(4,350)	(1,885)	675,523

19-2 Changes in investment property for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Beginning balance	Disposal	Depreciation	Transfer (*)	Ending balance
Land	463,948	(9,802)	–	7,613	461,759
Buildings	213,460	(1,512)	(12,113)	12,349	212,184
Government grants	(1,885)	–	716	–	(1,169)
Total	675,523	(11,314)	(11,397)	19,962	672,774

(*) The amount represents the change in the carrying amount of investment properties held by the Group due to the change in the ratio of lease occupancy.

For the nine-month period ended September 30, 2023:

Classification	Beginning balance	Disposal	Depreciation	Transfer (*)	Ending balance
Land	454,314	(744)	–	7,650	461,220
Buildings	213,496	(1,206)	(11,016)	11,733	213,007
Government grants	(2,868)	–	737	–	(2,131)
Total	664,942	(1,950)	(10,279)	19,383	672,096

(*) The amount represents the change in the carrying amount of investment properties held by the Group due to the change in the ratio of lease occupancy.

19-3 Rental income and operating expenses arising from the Group's investment properties for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Rental income	938	7,816	2,729	7,686
Operating cost directly related to investment properties that generate rental income	146	430	106	399

20. INTANGIBLE ASSETS:

20-1 Details of intangible assets as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Acquisition cost	Accumulated amortization	Accumulated impairment loss	Government grants	Book value
Goodwill	892	–	–	–	892
Industrial proprietary rights	2,872	(2,389)	–	–	483
Core deposits	5,482	(4,016)	–	–	1,466
Software	376,057	(272,744)	–	–	103,313
Systems development costs	1,316,833	(1,032,373)	–	(28)	284,432
Memberships	28,286	–	(2,933)	–	25,353
Others	358,163	(246,152)	(25)	–	111,986
Total	2,088,535	(1,557,674)	(2,958)	(28)	527,925

December 31, 2023:

Classification	Acquisition cost	Accumulated amortization	Accumulated impairment loss	Government grants	Book value
Goodwill	892	–	–	–	892
Industrial proprietary rights	2,800	(2,228)	–	–	572
Core deposits	5,357	(3,630)	–	–	1,727
Software	353,366	(245,864)	–	–	107,502
Systems development costs	1,142,380	(962,424)	–	(52)	179,904
Memberships	27,295	–	(2,933)	–	24,362
Others	334,197	(220,251)	(25)	–	113,921
Total	1,866,287	(1,434,397)	(2,958)	(52)	428,880

20-2 Changes in the carrying amount of intangible assets for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Beginning balance	Acquisition	Amortization	Others	Ending balance
Goodwill	892	–	–	–	892
Industrial proprietary rights	572	64	(161)	8	483
Core deposits	1,727	–	(301)	40	1,466
Software	107,502	22,074	(26,594)	331	103,313
Systems development costs	179,956	171,305	(67,946)	1,145	284,460
Memberships	24,362	951	–	40	25,353
Others(*)	113,921	24,153	(26,732)	644	111,986
Government grants	(52)	–	24	–	(28)
Total	428,880	218,547	(121,710)	2,208	527,925

(*) Of the other intangible asset amortization costs, ₩24,459 million is included in other operating expenses.

For the nine-month period ended September 30, 2023:

Classification	Beginning balance	Acquisition	Disposal	Amortization	Impairment loss	Others	Ending balance
Goodwill	892	–	–	–	–	–	892
Industrial proprietary rights	606	174	–	(188)	–	6	598
Core deposits	2,078	–	–	(289)	–	98	1,887
Software	82,257	35,130	–	(22,678)	–	124	94,833
Systems development costs	194,905	46,294	–	(56,682)	–	3,147	187,664
Memberships	23,015	2,044	(270)	–	–	22	24,811
Others(*)	82,437	27,911	(19)	(21,357)	(5)	1,098	90,065
Government grants	(83)	–	–	24	–	–	(59)
Total	386,107	111,553	(289)	(101,170)	(5)	4,495	400,691

(*) Of the other intangible asset amortization costs, ₩20,153 million is included in other operating expenses.

21. NON-CURRENT ASSETS HELD FOR SALE:

Details of non-current assets held for sale as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Acquisition cost (*)	37,386	40,602
Accumulated impairment loss	(129)	(124)
Book value	37,257	40,478
Net fair value	37,257	40,478

(*) Acquisition cost is presented as net of accumulated depreciation before classification as non-current assets held for sale.

Non-current assets held for sale are composed of 126 collaterals acquired for the purpose of repayment of loans and one other of which the sale is currently in progress as of September 30, 2024.

22. OTHER ASSETS AND MERCHANT BANKING ACCOUNT ASSETS:

22-1 Details of other assets as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Guarantee deposits paid	600,735	638,872
Accounts receivable	19,229,285	11,290,946
Accrued income	2,168,837	1,904,053
Prepaid expenses	269,829	158,133
Suspense payments	330,408	383,972
Expenditures	1,739	2,483
Deposit money to court	8,916	9,193
Domestic exchange settlement debit	1,951,153	4,193,365
Other miscellaneous assets	109,996	64,495
Allowance for other assets	(18,512)	(11,503)
Total	24,652,386	18,634,009

22-2 Changes in the allowance for other assets for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For three-month period ended September 30, 2024	For three-month period ended September 30, 2023
Beginning balance	11,503	11,421
Provision for allowance	8,192	3,750
Write-offs	(336)	(379)
Sales of non-performing loans, etc.	(199)	(414)
Collection of loans written off in prior year	331	431
Interest income on impaired assets	(10)	2
Exchange rate fluctuation and others	(969)	(3,313)
Ending balance	18,512	11,498

22-3 Details of merchant banking account assets as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification		September 30, 2024	December 31, 2023
On-balance-sheet items:			
Merchant banking account-loans at FVTPL		—	199,767
Merchant banking account-debt securities at FVTPL		3,509,977	3,440,806
CMA assets	Debt securities at FVTPL	597,809	997,251
Total		4,107,786	4,637,824
Off-balance-sheet items:			
Commitment		660,000	770,000

23. DEPOSITS:

Details of deposit liabilities as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Demand deposits		
Demand deposits in Korean won	19,502,757	16,130,967
Demand deposits in foreign currency	32,701,137	31,630,980
Subtotal	52,203,894	47,761,947
Time and savings deposits		
Time and savings deposits in Korean won (*)	285,245,453	278,789,580
Time and savings deposits in foreign currency	26,553,841	23,665,607
Subtotal	311,799,294	302,455,187
Certificate of deposits	16,522,364	19,532,319
Total	380,525,552	369,749,453

(*) Time and savings deposits in Korean won include savings deposits

(₩41,509,021 million as of September 30, 2024, and ₩40,213,612 million as of December 31, 2023) and corporate savings deposits (₩55,921,800 million as of September 30, 2024, and ₩58,318,632 million as of December 31, 2023).

24. FINANCIAL LIABILITIES AT FVTPL:

24-1 Details of financial liabilities at FVTPL as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Securities borrowed	358,452	452,426
Derivative liabilities held for trading	5,603,094	6,042,066
Total	5,961,546	6,494,492

24-2 Details of financial liabilities designated at FVTPL as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Deposits	320,874	173,339
Debentures	110,573	61,379
Total	431,447	234,718

Financial liabilities are at FVTPL in order to eliminate or significantly reduce a measurement or recognition inconsistency.

24-3 Difference between the book value and maturity amount of the financial liabilities designated at FVTPL as of September 30, 2024, and December 31, 2023, is as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Book value	431,447	234,718
Repayment amount at maturity	460,000	270,000
Difference	(28,553)	(35,282)

25. BORROWINGS:

Details of borrowings as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Lenders	Annual interest rate (%)	September 30, 2024	December 31, 2023
Borrowings in Korean won				
BOK borrowings	BOK	0.25~2.00	4,172,639	3,420,958
Government borrowings	Korea Development Bank, etc.	0.50~5.16	2,304,456	2,155,315
Other borrowings	Korea Energy Management Corporation, etc.	0.00~3.50	4,779,562	4,843,543
Subtotal			11,256,657	10,419,816
Borrowings denominated in foreign currencies				
Bank overdrafts	Foreign banks, etc.	0.00~19.15	1,426,601	268,487
Other borrowings	Wells Fargo, HSBC, etc.	0.00~7.90	7,925,929	9,250,262
Subtotal			9,352,530	9,518,749
Call money				
Call money in foreign currencies	Kookrin Bank, etc.	0.35~6.25	1,212,065	934,111
Bonds sold under repurchase agreements				
Bonds sold under repurchase agreements in Korean won	General customers	0.00	30	30
Bonds sold under repurchase agreements in foreign currencies	Citi	5.47~6.25	1,210,962	1,140,907
Subtotal			1,210,992	1,140,937
Others				
Bills sold	General customers	0.00~3.39	21,662	27,410
Deferred origination costs			(5,301)	(7,109)
Total			23,048,605	22,033,914

26. DEBENTURES:

Details of debentures as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Lenders	Annual interest rate (%)	September 30, 2024	December 31, 2023
Debentures in Korean won				
Debentures	Institutions	1.78~6.00	20,140,000	17,070,000
Subordinated debentures	Institutions, etc.	2.14~4.76	3,321,124	3,321,124
Net (loss) gain on fair value hedges (current period)			(4,088)	7,188
Net loss on fair value hedges (prior to previous fiscal year)			(29,550)	(36,738)
Less present value discount			(10,510)	(20,223)
Subtotal			23,416,976	20,341,351
Debentures in foreign currencies				
Debentures	Institutions	0.01~5.75	5,461,299	5,636,602
Subordinated debentures	Institutions	4.25	395,880	773,640
Net gain on fair value hedges (current period)			95,301	74,161
Net loss on fair value hedges (prior to previous fiscal year)			(184,216)	(271,131)
Less present value discount			(14,123)	(12,444)
Subtotal			5,754,141	6,200,828
Total			29,171,117	26,542,179

27. NET DEFINED BENEFIT LIABILITIES (ASSETS):

27-1 Details of net defined benefit liabilities (assets)

Details of net defined benefit liabilities (assets) as of September 30, 2024, and December 31, 2023, pypare as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Present value of defined benefit obligation	2,227,223	2,221,636
Fair value of plan assets	(1,998,757)	(2,048,061)
Net defined benefit liabilities	228,466	173,575

27-2 Defined benefit obligation

27-2-1 Changes in present value of defined benefit obligation

Changes in present value of defined benefit obligation for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For nine-month period ended September 30, 2024	For nine-month period ended September 30, 2023
Beginning balance	2,221,636	1,996,586
Current service cost	101,769	94,978
Interest cost	67,905	74,070
Benefits paid	(165,884)	(180,809)
Changes due to transfers between affiliates	1,500	(447)
Others	297	344
Ending balance	2,227,223	1,984,722

27-2-2 Total costs recognized in accordance with defined benefit plans

Total costs incurred in relation to defined benefit pension plans for the nine-month periods ended September 30, 2024 and 2023, are as follows

(KRW in millions):

Classification	For nine-month period ended September 30, 2024		For nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Current service cost	34,384	101,769	31,609	94,978
Interest cost	22,635	67,905	24,690	74,070
Interest income on plan assets	(21,056)	(62,088)	(25,677)	(75,738)
Total	35,963	107,586	30,622	93,310

27-3 Plan assets

Changes in the fair value of plan assets for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For nine-month period ended September 30, 2024	For nine-month period ended September 30, 2023
Beginning balance	2,048,061	2,064,640
Interest income on plan assets	62,088	75,738
Remeasurements of the net defined benefit liabilities	(9,419)	(16,154)
Benefit paid	(103,476)	(94,913)
Changes due to transfers between affiliates	1,503	(211)
Ending balance	1,998,757	2,029,100

28. CONTINGENT LIABILITIES, AGREEMENTS AND PROVISIONS:

28-1 Details of provisions as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Provision for payment guarantees:		
Financial guarantee contracts (*)	479	466
Non-financial guarantee contracts	47,768	71,609
Bills endorsed	2	2
Subtotal	48,249	72,077
Provision for unused commitments	83,795	73,065
Other provisions:		
Provision for restoration	59,015	57,976
Provision for lawsuits	21,581	3,400
Others	396,075	554,055
Subtotal	476,671	615,431
Total	608,715	760,573

(*) The Group recognizes the amount exceeding the unamortized amount of the initial fair value at subsequent measurement of the financial guarantee contracts as provisions for payment guarantees. The Group recognizes the unamortized amount as financial guarantee contract liabilities in the amount of ₩28,308 million and ₩18,607 million as of September 30, 2024, and December 31, 2023, respectively.

28-2 Changes in provision for unused commitments for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Unused commitments			Total
	12-month ECL	Lifetime ECL		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	53,802	17,212	2,051	73,065
Transfer to 12-month ECL	2,890	(2,766)	(124)	–
Transfer to non-credit-impaired loan	(1,731)	1,738	(7)	–
Transfer to credit-impaired loan	(60)	(72)	132	–
Provision (reversal of)	533	(2,469)	13,779	11,843
Changes in exchange rates	(1,129)	16	–	(1,113)
Ending balance	54,305	13,659	15,831	83,795

For the nine-month period ended September 30, 2023:

Classification	Unused commitments			Total
	12-month ECL	Lifetime ECL		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	35,404	19,107	1,969	56,480
Transfer to 12-month ECL	1,296	(1,258)	(38)	–
Transfer to non-credit-impaired loan	(900)	916	(16)	–
Transfer to credit-impaired loan	(3)	(14)	17	–
Provision (reversal of)	21,911	(557)	(151)	21,203
Changes in exchange rates	(5,866)	14	–	(5,852)
Ending balance	51,842	18,208	1,781	71,831

28-3 Changes in provision for financial guarantee contracts for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Unused commitments			Total
	12-month ECL	Lifetime ECL		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	413	53	—	466
Transfer to 12-month ECL	4	(4)	—	—
Transfer to non-credit-impaired loan	(3)	3	—	—
Provision (reversal of)	(16)	8	—	(8)
Changes in exchange rates	19	2	—	21
Ending balance	417	62	—	479

For the nine-month period ended September 30, 2023:

Classification	Unused commitments			Total
	12-month ECL	Lifetime ECL		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	172	277	–	449
Transfer to 12-month ECL	5	(5)	–	–
Transfer to non-credit-impaired loan	(2)	2	–	–
Provision (reversal of)	207	(241)	–	(34)
Changes in exchange rates	12	20	–	32
Ending balance	394	53	–	447

28-4 Changes in other provisions for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Beginning balance	Provision (reversal of)	Used	Others	Ending balance
Non-financial payment guarantees	71,611	(25,683)	—	1,842	47,770
Other provisions					
Provision for restoration	57,976	1,006	(1,010)	1,043	59,015
Provision for lawsuits	3,400	20,327	(2,143)	(3)	21,581
Others	554,055	118,646	(276,627)	1	396,075
Subtotal	615,431	139,979	(279,780)	1,041	476,671
Total	687,042	114,296	(279,780)	2,883	524,441

For the nine-month period ended September 30, 2023:

Classification	Beginning balance	Provision (reversal of)	Used	Others	Ending balance
Non-financial payment guarantees	81,463	(13,313)	—	4,982	73,132
Other provisions					
Provision for restoration	51,596	908	(1,146)	1,256	52,614
Provision for lawsuits	43,215	(23,083)	(16,653)	3	3,482
Others	331,775	43,487	(38,007)	(1)	337,254
Subtotal	426,586	21,312	(55,806)	1,258	393,350
Total	508,049	7,999	(55,806)	6,240	466,482

28-5 Details of financial and payment guarantees as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Guarantee balance	
	September 30, 2024	December 31, 2023
Financial guarantee contracts in Korean won:		
Payment guarantees for issuance of debentures	68,500	94,500
Payment guarantees for collateral for loans	50,539	44,402
Payment guarantees for purchasing loans	263,326	356,998
Subtotal	382,365	495,900
Financial guarantees in foreign currencies:		
Local financial payment guarantees	2,309	2,256
Other financial payment guarantees	34,964	–
Subtotal	37,273	2,256
Confirmed payment guarantees in Korean won	2,737,893	2,447,238
Confirmed payment guarantees in foreign currencies:		
Acquisition of letter of credit	1,641,473	2,115,715
Acceptance on letter of guarantees	135,514	114,864
Others	14,615,842	12,719,947
Subtotal	16,392,829	14,950,526
Contingent payment guarantees:		
Letters of credit	3,954,560	4,148,521
Others	1,923,762	1,988,457
Subtotal	5,878,322	6,136,978
Bills endorsed	778	753
Total	25,429,460	24,033,651

28-6 Commitments

Details of unused commitments as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Unused commitments balance	
	September 30, 2024	December 31, 2023
Commitments on loans in Korean won	66,829,786	65,144,227
Commitments on loans in foreign currencies	33,885,988	30,837,779
Commitments on credit lines on asset-backed securities (*)	156,740	118,300
Commitments on purchase of securities (*)	14,034,512	13,625,533
Commitments on discounted notes from Merchant Banking	660,000	770,000
Total	115,567,026	110,495,839

(*) The financial guarantee contracts as of September 30, 2024, and December 31, 2023, amount to ₩13,896,690 million and ₩13,731,626 million, respectively.

28-7 Lawsuits

As of September 30, 2024, the Group is involved in 253 lawsuits as a plaintiff and 235 lawsuits as a defendant. The aggregate amounts of claims as plaintiff and defendant are ₩196,553 million and ₩349,887 million, respectively. The Group recognizes provisions in consideration of the likelihood of winning a lawsuit.

The Group's major lawsuits in progress as a defendant are summarized as follows (KRW in millions):

Plaintiff	Amount	Status of lawsuit		Content
		First trial	On appeal	
F*****Bankruptcy administrator	44,329	Won	In progress (Second trial)	Return of an illicit gain
MT*****	25,863	In progress	–	Return of an frozen fund
****Cooperation Co., Ltd.	15,000	Partial won	In progress (Second trial)	Return of an illicit gain
****I Co., Ltd.	14,200	Won	–	Compensation for damages
****Word Co., Ltd.	10,000	In progress	–	Compensation for damages
****Securities Co., Ltd.	10,000	In progress	–	Compensation for damages

Meanwhile, although not included in the above pending lawsuit, the **Bank in China and **Big Data Capital Service Center Co., Ltd. additionally applied an execution of 194 million yuan and 234 million yuan against the Bank in December 2023 and May 2024 with the Shanghai Financial Court in relation to the default of *****Lease Kobun Co., Ltd. The purpose of this is to obtain supplementary liability for the repayment of debts to the bank's investee company, *****Lease Kobun Co., Ltd. on the grounds of the bank's non-payment of the bank's capital increase in the past. The Shanghai Financial Court granted the additional applications for execution of **Bank and **Big Data Capital Service Center Co., Ltd. in April and September 2024, respectively, and immediately after the decision, the Group filed an objection to the execution against **Bank and **Big Data Capital Service Center Co., Ltd. Separately, the bank filed an arbitration application with the Tianjin Arbitration Commission in March 2024 against *****Lease Kobun Co., Ltd. and its shareholders, confirming that it was not obligated to terminate the capital increase agreement and fulfill its investment. As of September 30, 2024, the future impact on the Bank's interim separate financial statements cannot be reasonably predicted.

28-8 The Fair Trade Commission's investigation into whether four commercial banks, including the Bank, engaged in unfair collaborative practices is ongoing, and the results cannot be predicted at this time.

28-9 In connection with the Ukraine crisis in February 2022, international sanctions against the Russian Federation of the international community could affect companies and individuals subject to sanctions, as well as companies, industries and economies that do business directly or indirectly with Russia. As of the settlement date, the Bank expects to have a financial impact on the business of KEB Hana Bank Russia, a subsidiary of Russia, but cannot reasonably predict the estimate.

29. OTHER LIABILITIES AND MERCHANT BANKING ACCOUNT LIABILITIES

29-1 Details of other liabilities as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Accounts payable from trust accounts	7,613,457	7,019,423
Foreign exchange settlement credits	1,351,278	941,693
Domestic exchange settlement credits	6,221,583	7,071,891
Accounts payables	19,586,262	11,692,542
Accrued expenses	5,415,771	4,551,927
Unearned revenue	124,545	136,764
Deposits for letter of guarantees and others	642,665	553,160
Suspense payables	230,366	263,320
Taxes withheld	168,110	183,385
Security subscriptions	41,555	40,884
Accounts for agency businesses	870,347	201,001
Liability incurred by agency relationship	1,923,140	2,505,394
Lease liabilities	801,463	593,475
Financial guarantee contracts	28,308	18,607
Other liabilities	36,559	32,476
Total	45,055,409	35,805,942

29-2 Details of merchant banking account liabilities as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Merchant banking account deposits	4,268,770	4,153,035
Other merchant banking account liabilities (*)	1,425	1,662
Total	4,270,195	4,154,697

(*) Including accrued expenses

29-3 Details of lease liabilities as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Face amount	Present value discount	Book value
Real estate for business purpose	889,781	(107,009)	782,772
Equipment and vehicles	16,866	(824)	16,042
Other assets	2,744	(95)	2,649
Total	909,391	(107,928)	801,463

December 31, 2023:

Classification	Face amount	Present value discount	Book value
Real estate for business purpose	657,443	(85,050)	572,393
Equipment and vehicles	17,788	(915)	16,873
Other assets	4,391	(182)	4,209
Total	679,622	(86,147)	593,475

29-4 Changes in lease liabilities for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Beginning balance	Increase	Depreciation	Paid (*)	Others	Ending balance
Real estate for business purpose	572,393	356,075	22,990	(162,744)	(5,942)	782,772
Equipment and vehicles	16,873	5,454	426	(6,680)	(31)	16,042
Other assets	4,209	47	91	(1,657)	(41)	2,649
Total	593,475	361,576	23,507	(171,081)	(6,014)	801,463

(*) Total cash outflow related to lease liabilities for the nine-month period ended September 30, 2024, is ₩171,016 million.

For the nine-month period ended September 30, 2023:

Classification	Beginning balance	Increase	Depreciation	Paid (*)	Others	Ending balance
Real estate for business purpose	647,049	95,344	17,746	(161,643)	20	598,516
Equipment and vehicles	15,833	6,424	355	(6,428)	(74)	16,110
Other assets	4,897	651	117	(944)	(60)	4,661
Total	667,779	102,419	18,218	(169,015)	(114)	619,287

(*) Total cash outflow related to lease liabilities for the nine-month period ended September 30, 2023, is ₩168,908 million.

29-5 Details of contractual cash flows before discounting the lease liabilities by remaining maturity as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Less than 1 month	1 month ~ 3 months	3 months ~ 6 months	6 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
Real estate for business purpose	17,398	36,364	51,647	95,535	427,699	261,138	889,781
Equipment and vehicles	739	1,370	1,909	3,426	9,422	–	16,866
Other assets	236	311	559	597	1,041	–	2,744
Total	18,373	38,045	54,115	99,558	438,162	261,138	909,391

December 31, 2023:

Classification	Less than 1 month	1 month ~ 3 months	3 months ~ 6 months	6 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
Real estate for business purpose	18,348	27,165	39,453	70,823	280,895	220,759	657,443
Equipment and vehicles	676	1,346	1,952	3,465	10,349	–	17,788
Other assets	247	337	585	1,100	2,122	–	4,391
Total	19,271	28,848	41,990	75,388	293,366	220,759	679,622

30. CAPITAL STOCK AND OTHER PAID-IN CAPITAL:

30-1 Details of capital stock as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions and shares):

Classification	September 30, 2024	December 31, 2023
Number of shares authorized	2,000,000,000	2,000,000,000
Par value per share (in Korean won)	5,000	5,000
Number of shares issued	1,071,915,717	1,071,915,717
Common stock	5,359,578	5,359,578

30-2 Details of capital surplus and capital adjustments as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Capital surplus (*)	6,161,303	6,161,303
Capital adjustments		
Others	(37,652)	(37,921)
Total	6,123,651	6,123,382

(*) As of September 30, 2024, the Group's capital surplus includes the amount recognized at the time of the business combination under common control.

30-3 Details of hybrid securities as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	Issuance date	Expiry date	Annual interest rate (%)	September 30, 2024	December 31, 2023
Hybrid securities in foreign currencies	2021-10-19	-	3.50	353,738	353,738
Total				353,738	353,738

The Group can repay the above hybrid securities in foreign currencies at the time of five years from the issuance date or at every interest payment date (every six months) after five years from the issuance date if the Group receives the approval from the Governor of Financial Supervisory Service.

31. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS):

Changes in accumulated other comprehensive income (loss) for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Beginning balance	Increase (decrease) (excluding reclassification and transfer of retained earnings)	Transfer of retained earnings	Reclassification (*)	Tax effects	Ending balance
Gain (loss) on valuation of financial assets at FVOCI	(439,719)	478,713	6,832	(110,413)	(99,400)	(163,987)
Changes in equity of investments in associates	66,829	57,753	–	–	(15,247)	109,335
Gain (loss) on valuation of net investment hedges of foreign operations	(71,918)	(31,612)	–	–	8,345	(95,185)
Exchange differences on translation of foreign operations	(22,133)	90,560	–	–	(7,718)	60,709
Loss on valuation of fair value hedges	(24,984)	–	–	–	–	(24,984)
Remeasurement of defined benefit plans	(612,120)	(9,559)	–	–	2,487	(619,192)
Total	(1,104,045)	585,855	6,832	(110,413)	(111,533)	(733,304)

(*) Loss on valuation of financial assets at FVOCI and changes in equity of investments in associates recognized as accumulated other comprehensive income (loss) is reclassified due to disposal of financial assets at FVOCI.

For the nine-month period ended September 30, 2023:

Classification	Beginning balance	Increase (decrease) (excluding reclassification and transfer of retained earnings)	Transfer of retained earnings	Reclassification (*)	Tax effects	Ending balance
Gain (loss) on valuation of financial assets at FVOCI	(1,018,647)	410,100	(158,520)	(9,236)	(64,127)	(840,430)
Changes in equity of investments in associates	75,396	67,396	–	–	(17,792)	125,000
Gain (loss) on valuation of net investment hedges of foreign operations	(49,822)	(69,314)	–	–	18,299	(100,837)
Exchange differences on translation of foreign operations	(84,186)	173,688	–	–	(16,766)	72,736
Loss on valuation of fair value hedges	(24,984)	–	–	–	–	(24,984)
Remeasurement of defined benefit plans	(463,290)	(16,154)	–	–	4,574	(474,870)
Total	(1,565,533)	565,716	(158,520)	(9,236)	(75,812)	(1,243,385)

(*) Loss on valuation of financial assets at FVOCI and changes in equity of investments in associates recognized as accumulated other comprehensive income (loss) is reclassified due to disposal of financial assets at FVOCI.

32. RETAINED EARNINGS:

32-1 Details of retained earnings as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Legal reserve		
Earned surplus reserve (*1)	2,678,700	2,349,400
Voluntary reserve		
Revaluation reserves on property, plant and equipment (*2)	203,898	203,998
Other reserves (*3)	116,594	102,155
Regulatory reserve for bad debts (*4)	2,492,716	2,593,244
Other voluntary reserves	5,450,200	5,450,200
Subtotal	8,263,408	8,349,597
Unappropriated retained earnings	11,066,306	10,351,090
Total	22,008,414	21,050,087

(*1) Article 40 of the Banking Law of the Republic of Korea requires the Group to appropriate at least 10% of net income after income tax to legal reserve in every time to pay dividends, until such reserve equals 100% of its paid-in capital. This reserve is restricted to reduce deficit or be transferred to capital.

(*2) The Group records gains from revaluation of property, plant and equipment previously recognized as other comprehensive income to the voluntary reserve, as it applies the revaluation amount as deemed cost at the first-time adoption of K-IFRSs. The reserve is recognized in distributable retained earnings when the relevant property, plant and equipment are disposed.

(*3) Relevant Japanese regulations require the Group's overseas branches located in Japan to appropriate a minimum of 10% of net income for the period as a legal reserve, until the reserve equals ¥2,000 million. This reserve is restricted to be used upon liquidation of the Japanese branches. In addition, the legal reserves of the Bank's overseas branches located in Chennai, Panama, Singapore, Hanoi, Ho Chi Minh, Abu Dhabi and Hong Kong are appropriated in

accordance with the relevant regulation of each country.

(*4) The Group has provided allowances for possible loan losses in accordance with K-IFRSs. The difference in this amount and the provision for possible loan and other asset losses accumulated in accordance with the minimum accumulation ratio required by FSS is reserved as regulatory reserve for bad debts.

32-2 Changes in appropriated retained earnings for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For nine-month period ended September 30, 2024	For nine-month period ended September 30, 2023
Beginning balance	21,050,087	19,236,315
Net income	2,780,841	2,766,424
Dividends	(1,810,000)	(1,690,000)
Dividends on hybrid securities	(7,223)	(14,284)
Reclassification of valuation gain or loss on equity securities at FVOCI upon derecognition, etc.	(5,028)	116,671
Others	(263)	—
Ending balance	22,008,414	20,415,126

33. REGULATORY RESERVE FOR BAD DEBTS:

Regulatory reserve for bad debt is calculated and disclosed in accordance with Article 29, Sections 1 and 2 of Regulation on Supervision of Banking Business of the Republic of Korea.

33-1 Details of regulatory reserve for bad debts as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Beginning balance	2,577,402	2,690,108
Planned provision for (reversal of) bad debts	226,374	(112,706)
Ending balance	2,803,776	2,577,402

33-2 Provisions for bad debt reserve and income adjusted for deductions of provisions for bad debt for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Net income attributable to equity holders of the parent before deducting provisions for bad debt	1,029,950	2,780,841	927,415	2,766,424
Provision for (reversal of) bad debt reserve	17,730	(226,374)	(3,066)	140,983
Adjusted income after deducting provisions for bad debt	1,047,680	2,554,467	924,349	2,907,407
Basic EPS adjusted after reflecting reserve for bad debt (*1) (In Korean won)	977	2,376	860	2,699
Diluted EPS adjusted after reflecting reserve for bad debt (*2) (In Korean won)	977	2,376	860	2,699

(*1) The amount of ₩7,223 million and ₩14,284 million was deducted from the adjusted income after reflecting the bad debt reserve for the calculation of EPS after reflecting reserve for bad debt for the nine-month period ended September 30, 2024 and September 30, 2023.

(*2) Since the Bank does not have dilutive potential ordinary stock, basic EPS is the same as diluted EPS.

34. OPERATING INCOME AND OPERATING EXPENSES:

34-1 Operating income for the nine-month periods ended September 30, 2024 and 2023, is as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Interest income	5,080,395	15,305,614	5,048,811	14,601,537
Fees and commission income	258,056	778,118	222,771	705,767
Gains on financial instruments at FVTPL	91,182	18,582,467	7,059,755	21,165,773
Gains on fair value hedging derivative instruments	79,460	141,497	49,409	85,206
Gains on financial instruments at FVOCI	51,502	150,020	4,405	86,780
Gains on financial instruments at AC	—	2	1	2
Reversal of credit loss	1,517	1,517	(607)	24,224
Other operating income	1,873,045	5,102,973	1,786,749	5,825,828
Total	7,435,157	40,062,208	14,171,294	42,495,117

34-2 Operating expenses for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Interest expenses	3,180,160	9,523,004	3,057,198	8,636,765
Fees and commission expenses	67,895	202,906	64,656	187,093
Expenses on financial instruments at FVTPL	(197,937)	18,157,730	7,055,998	20,853,531
Expenses on fair value hedging derivative instruments	43,890	140,682	61,242	100,590
Expenses on financial instruments at FVOCI	74	135	2,821	3,800
Provision for credit loss	81,280	221,043	175,644	560,980
General and administrative expenses	869,935	2,538,151	812,270	2,502,091
Other operating expenses	2,137,610	5,523,752	1,810,781	5,986,724
Total	6,182,907	36,307,403	13,040,610	38,831,574

35. NET INTEREST INCOME:

35-1 Interest income for the nine-month periods ended September 30, 2024 and 2023, is as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Interest income in accordance with the EIR method				
Interest income on due from banks	130,084	432,321	169,821	485,102
Interest income on loans	4,385,603	13,165,350	4,357,324	12,645,980
Interest income on financial assets at FVOCI	250,036	777,498	219,454	596,413
Interest income on securities at AC	245,425	748,090	251,958	750,879
Subtotal	5,011,148	15,123,259	4,998,557	14,478,374
Interest income on financial instruments at FVTPL	69,247	182,355	50,254	123,163
Total	5,080,395	15,305,614	5,048,811	14,601,537

35-2 Interest expenses for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Interest expense on deposit liabilities	2,583,104	7,746,330	2,510,392	7,127,360
Interest expense on borrowings	198,639	595,417	202,323	552,965
Interest expenses on financial instruments at FVTPL	3,623	10,378	1,019	3,025
Interest expense of debentures	304,619	894,013	253,416	705,314
Interest expense of lease liabilities	7,984	23,507	5,880	18,219
Others	82,191	253,359	84,168	229,882
Total	3,180,160	9,523,004	3,057,198	8,636,765

36. NET FEES AND COMMISSION INCOME:

36-1 Fees and commission income for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Commissions received from loans and others	165,131	503,810	133,388	443,821
Commissions received on guarantee	29,803	87,053	26,709	74,953
Commissions related to foreign exchange	63,122	187,255	62,674	186,993
Total	258,056	778,118	222,771	705,767

36-2 Fees and commission expenses for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Commissions paid	51,753	155,533	51,411	146,195
Commissions related to foreign exchange	16,142	47,373	13,245	40,898
Total	67,895	202,906	64,656	187,093

37. GAIN (LOSS) ON FINANCIAL INSTRUMENTS AT FVTPL:

37-1 Details of gain (loss) on financial instruments at FVTPL for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three- month period ended	For the nine- month period ended	For the three- month period ended	For the nine- month period ended
Gain on financial instruments at FVTPL				
Financial instruments at FVTPL				
Gain on valuation	264,869	493,754	48,476	209,147
Gain on disposals	51,024	94,625	18,670	58,086
Subtotal	315,893	588,379	67,146	267,233
Derivative instruments held for trading				
Gain on valuation of derivatives				
Gain on currency-related derivatives	(4,922,305)	3,854,964	2,644,501	6,957,874
Gain on interest rate-related derivatives	97,842	283,864	174,742	415,304
Gain on stock-related derivatives	25	4,651	217	6,172
Subtotal	(4,824,438)	4,143,479	2,819,460	7,379,350
Gain on transaction of derivatives				
Gain on currency-related derivatives	3,544,683	10,039,457	3,096,840	8,954,259
Gain on interest rate-related derivatives	1,044,234	3,779,989	1,060,921	4,532,519
Gain on stock-related derivatives	13,580	26,773	7,479	20,455
Subtotal	4,602,497	13,846,219	4,165,240	13,507,233
Gain on securities sold	(926)	2,884	2,231	6,226
Total	93,026	18,580,961	7,054,077	21,160,042
Loss on financial instruments at FVTPL				
Financial instruments at FVTPL				
Loss on valuation	(41,189)	73,201	112,902	195,461
Loss on disposals	12,994	62,253	23,625	36,058
Others	659	1,494	316	1,705
Subtotal	(27,536)	136,948	136,843	233,224
Derivative instruments held for trading				
Loss on valuation of derivatives				
Loss on currency-related derivatives	(5,105,144)	3,524,725	2,584,419	6,757,067
Loss on interest rate-related derivatives	164,028	351,802	168,878	323,617
Loss on stock-related derivatives	(1,240)	3,602	(2,038)	3,226
Others	(4,555)	862	3,483	4,895
Subtotal	(4,946,911)	3,880,991	2,754,742	7,088,805

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Loss on transaction of derivatives				
Loss on currency-related derivatives	3,270,377	10,187,189	3,291,039	9,354,024
Loss on interest rate-related derivatives	1,480,581	3,902,447	864,484	4,152,988
Loss on stock-related derivatives	13,129	22,319	8,467	16,240
Subtotal	4,764,087	14,111,955	4,163,990	13,523,252
Loss on securities sold	4,160	19,573	1,895	8,250
Total	(206,200)	18,149,467	7,057,470	20,853,531
Net amount	299,226	431,494	(3,393)	306,511

37-2 Details of gain (loss) on financial instruments designated at FVTPL for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Gain on financial instruments designated at FVTPL				
Deposits				
Gain on valuation	(2,374)	268	5,678	5,731
Debentures				
Gain on valuation	530	1,238	–	–
Total	(1,844)	1,506	5,678	5,731
Loss on financial instruments designated at FVTPL				
Deposits				
Loss on valuation	7,804	7,804	(1,472)	–
Debentures				
Loss on valuation	431	431	–	–
Deposits				
Loss on valuation	28	28	–	–
Total	8,263	8,263	(1,472)	–
Net amount	(10,107)	(6,757)	7,150	5,731

38. GAIN (LOSS) ON DERIVATIVE INSTRUMENTS USED FOR HEDGING:

Gain (loss) on derivative instruments used for hedging for the nine-month periods ended September 30, 2024 and 2023, is as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three- month period ended	For the nine- month period ended	For the three- month period ended	For the nine- month period ended
Gain on hedged item				
Gain on valuation				
Gain on valuation of debentures	(20,039)	11,195	27,016	36,597
Gain on valuation of deposits	(11,212)	671	20,114	22,808
Subtotal	(31,251)	11,866	47,130	59,405
Gain on transaction				
Gain on transaction of derivatives	–	–	1,859	1,859
Derivative instruments used for hedging				
Gain on valuation of derivatives				
Gain on valuation of currency-related derivatives	22,090	22,090	(15,525)	874
Gain on valuation of interest-related derivatives	77,901	95,453	7,800	14,038
Subtotal	99,991	117,543	(7,725)	14,912
Gain on transaction of derivative instruments				
Gain on transaction of currency-related derivatives	–	423	7,704	7,704
Gain on transaction of interest-related derivatives	10,720	11,665	441	1,326
Subtotal	10,720	12,088	8,145	9,030
Total	79,460	141,497	49,409	85,206
Loss on hedged item				
Loss on valuation				
Loss on valuation of debentures	82,231	102,408	3,680	20,480
Loss on valuation of deposits	10,322	10,322	(589)	–
Subtotal	92,553	112,730	3,091	20,480
Loss on transaction				
Loss on transaction of debentures	10,721	12,753	782	782
Derivative instruments used for hedging				
Loss on valuation of derivatives				
Loss on valuation of currency-related derivatives	(27,973)	–	7,767	20,736
Loss on valuation of interest-related derivatives	(31,411)	11,666	47,669	55,730
Subtotal	(59,384)	11,666	55,436	76,466
Loss on transaction of derivatives				
Loss on transaction of currency-related derivatives	–	3,533	1,444	1,444
Loss on transaction of interest-related derivatives	–	–	489	1,418
Subtotal	–	3,533	1,933	2,862
Total	43,890	140,682	61,242	100,590
Net amount	35,570	815	(11,833)	(15,384)

39. GAIN (LOSS) ON FINANCIAL INSTRUMENTS AT FVOCI:

Details of gain (loss) on financial instruments designated at FVOCI for the nine-month periods ended September 30, 2024 and 2023, are as follows
(KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Gain on disposal of financial instruments at FVOCI	51,502	150,020	4,405	86,780
Loss on disposal of financial instruments at FVOCI	74	135	2,821	3,800
Net amount	51,428	149,885	1,584	82,980

40. GAIN (LOSS) ON FINANCIAL INSTRUMENTS AT AC:

Details of gain (loss) on financial instruments designated at AC for the nine-month periods ended September 30, 2024 and 2023, are as follows
(KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Gain on disposal of financial instruments at AC	-	2	1	2

The Group disposed of some securities at AC in accordance with the exercise of an option (put option) by the issuer of the securities for the nine-month periods ended September 30, 2024 and 2023.

41. PROVISION FOR (REVERSAL OF) CREDIT LOSS:

Provision for (reversal of) bad debts due to the change in credit loss for the nine-month periods ended September 30, 2024 and 2023, is as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Provision for (reversal of) credit loss of debt securities at FVOCI	(1,790)	(1,517)	106	26
Provision for (reversal of) possible loan loss for debt securities at AC	(120)	1,513	527	(24,224)
Provision for bad debts of loan losses	78,360	211,338	173,941	557,204
Provision for bad debts of other asset losses	3,313	8,192	1,677	3,750
Total	79,763	219,526	176,251	536,756

42. GENERAL AND ADMINISTRATIVE EXPENSES:

General and administrative expenses for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Salaries	396,069	1,264,032	406,810	1,257,921
Retirement benefits-Defined benefits plans	35,963	107,586	30,622	93,310
Retirement benefits-Defined contribution plans	184	541	127	417
Termination benefits	29,169	29,464	8,718	79,033
Employee welfare benefits	27,617	64,244	24,996	67,251
Depreciation	102,678	299,373	100,904	287,047
Amortization	35,351	97,251	28,116	81,017
Rental fees	14,884	43,411	14,398	41,604
Entertainment expenses	5,279	14,674	4,469	12,834
Taxes and dues	32,325	121,042	31,449	116,219
Advertising expenses	56,267	120,726	37,555	103,665
Others	134,149	375,807	124,106	361,773
Total	869,935	2,538,151	812,270	2,502,091

43. OTHER OPERATING INCOME:

Details of other operating income for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Gain on disposal of loans	1,278	13,971	6,883	58,557
Reversal of provisions for payment guarantees	(5,768)	25,691	(10,999)	13,347
Reversal of allowances for unused commitments	–	–	(536)	26,914
Trust commissions	53,591	151,832	53,859	157,400
Gain on foreign exchange transaction	1,737,524	4,661,427	1,673,856	5,366,390
Gain on merchant banking accounts (*)	45,848	141,492	47,666	141,652
Dividend income	1,150	11,408	2,196	11,184
Others	39,422	97,152	13,824	50,384
Total	1,873,045	5,102,973	1,786,749	5,825,828

(*) Details of gain on merchant banking accounts for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Interest income	35,385	107,719	38,931	114,048
Fees and commission income	58	224	104	337
Gain on disposal of debt securities at FVTPL	–	520	–	1,229
Gain on valuation of debt securities at FVTPL	(8)	686	–	–
Gain on valuation of CMA securities	(88)	119	58	131
Gain on disposal of bills	10,501	32,224	8,573	25,907
Total	45,848	141,492	47,666	141,652

44. OTHER OPERATING EXPENSES:

Details of other operating expenses for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Loss on disposal of loans	34,724	37,514	640	894
Provision for payment guarantees	1,151	11,843	5,430	21,203
Provision for unused commitments	3,906	21,151	–	–
Contribution to Korea Credit Guarantee Fund	129,600	365,878	119,693	340,041
Insurance fee on deposit	124,353	367,999	119,490	356,716
Loss on foreign exchange transaction	1,793,802	4,563,771	1,515,096	5,116,989
Merchant banking accounts expense (*)	34,133	101,385	36,758	107,410
Others	15,941	54,211	13,674	43,471
Total	2,137,610	5,523,752	1,810,781	5,986,724

(*) Details of merchant banking accounts expenses for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Interest expenses	34,133	101,385	36,436	107,002
Others	–	–	322	408
Total	34,133	101,385	36,758	107,410

45. NON-OPERATING INCOME:

Details of non-operating income for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Rental fee income	938	7,816	2,729	7,686
Gain on disposal of property, plant and equipment	3,178	4,439	31	82
Gain on disposal of investment properties	8,358	10,761	–	600
Gain on disposal of non-current assets held for sale	16	147	397	397
Gain on disposal of stocks invested in associates and joint ventures	94	1,075	3	2,941
Gain on valuation of investments in associates	44,880	159,323	53,927	120,017
Gain on termination of right-of-use assets	662	4,438	518	943
Others	2,671	17,009	1,398	13,284
Total	60,797	205,008	59,003	145,950

46. NON-OPERATING EXPENSES:

Details of non-operating expenses for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Loss on disposal of property, plant and equipment	35	391	33	102
Loss on impairment of property, plant and equipment	–	11	–	–
Loss on disposal of investment properties	71	71	–	–
Loss on impairment of intangible assets	–	–	–	5
Loss on impairment of non-current assets held for sale	79	106	1,069	1,069
Loss on valuation of investments in associates	1,504	8,520	(1,112)	9,466
Collection expenses for written-off claims	319	979	614	1,602
Collection commissions for written-off claims	1,141	3,980	1,295	3,888
Loss on disposal of stocks invested in associates and joint ventures	–	297	2,309	2,309
Loss on termination of right-of-use assets	90	889	461	1,101
Donations	35,326	152,293	17,145	74,482
Others	7,430	131,765	12,552	65,500
Total	45,995	299,302	34,366	159,524

47. INCOME TAX EXPENSES:

47-1 The components of income tax expenses for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024	For the nine-month period ended September 30, 2023
Current income taxes		
Current income taxes	739,540	756,641
Prior-year's income tax adjustments recognized in the current year	(37,666)	(20,191)
Changes in deferred tax assets (liabilities)	338,891	324,378
Income taxes directly recognized in equity	(109,729)	(118,393)
Tax effect of consolidated tax returns	(60,496)	(66,974)
Income tax expenses	870,540	875,461

47-2 Reconciliations of income tax expenses applicable to the net income before income tax expenses at the Korea statutory tax rate and to income tax expenses at the effective income tax rate of the Group for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024	For the nine-month period ended September 30, 2023
Net income before tax	3,660,511	3,649,969
Corporate tax according to applicable tax rate (*)	948,438	945,754
Tax-free income	(4,228)	(4,437)
Non-deductible expenses	4,105	6,638
Tax credits	(21,725)	(23,675)
Overseas corporate tax	63,617	62,880
Changes due to consolidated tax system	(60,496)	(66,974)
Adjustments	(37,666)	(20,191)
Other (tax rate fluctuation, etc.)	(21,505)	(24,534)
Corporate tax expense	870,540	875,461
Effective tax rate (%)	23.78	23.99

(*) 9.9% is applied to income under ₩200 million, 20.9% is applied to income exceeding ₩200 million and under ₩20 billion, 23.1% is applied to income exceeding ₩20 billion and under ₩300 billion and 26.4% is applied to income above ₩300 billion.

47-3 The global minimum tax implementation

The global minimum tax implementation ("Pillar 2") applies to companies that are members of a multinational group with sales of more than 750 million euros in the interim consolidated financial statements for at least two of the four preceding years, and to subsidiaries that are a permanent establishment and meet certain requirements. This is a system in which, if the effective tax rate of a company is less than 15%, the equivalent amount is paid to the tax office of the country where the parent company that meets certain requirements.

Korea enacted a tax law related to Pillar 2 in 2023, and the law should be applied from fiscal years beginning on or after January 1, 2024. Accordingly, the Group is in the process of analyzing the impact on corporate tax in relation to the global minimum tax system, and it is not expected to have a significant impact on current corporate tax expense for the nine-month period ended September 30, 2024.

48. EARNINGS PER SHARE:

48-1 Weighted-average number of common stocks for the nine-month periods ended September 30, 2024 and 2023, is as follows (shares):

Classification	Periods	Number of shares	Weights	Weighted-average number of ordinary stocks
September 30, 2024	2024.01.01~2024.09.30	1,071,915,717	274/274	1,071,915,717
September 30, 2023	2023.01.01~2023.09.30	1,071,915,717	273/273	1,071,915,717

Since the Group does not have potentially dilutive common stock, the weighted-average number of common stock outstanding per basic share is the same as the weighted-average number of shares of common stock outstanding per diluted share.

48-2 The Group's basic EPS for the nine-month periods ended September 30, 2024 and 2023, is calculated as follows
(KRW in millions except per share amounts):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Net income for the period attributable to owners	1,029,950	2,780,841	927,415	2,766,424
Dividends on hybrid equity securities	—	(7,223)	(2,453)	(14,284)
Total	1,029,950	2,773,618	924,962	2,752,140
Weighted-average number of shares of common stocks outstanding	1,071,915,717	1,071,915,717	1,071,915,717	1,071,915,717
Basic EPS (in Korean won) (*)	961	2,588	862	2,567

(*) Basic EPS is the same as diluted EPS for the nine-month periods ended September 30, 2024 and 2023.

49. SHARE-BASED PAYMENT:

The Group operates a performance share plan. The Group's performance share plan is a cash-settled share-based compensation system linked to the shares of HFG, the parent company. It is a system in which the payment quantity is determined based on the performance over the three-year period from the grant date and paid in cash.

49-1 Details of liabilities related to share-based payment and total intrinsic value of rights accounted for as accounts payable in case that option holders achieve rights to receive cash or other assets as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Book value of liabilities related to share-based payment		
Performance share (granted by the Group)	29,529	29,972

49-2 The compensation costs for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Costs recognized due to share-based payment				
Equity-linked special incentive (granted by the Group)	1,793	12,720	1,406	5,906
Stock options (granted by subsidiary)	—	—	—	(17)
Total	1,793	12,720	1,406	5,889

49-3 Details of performance-linked stocks granted to the executives and department head of the Group as of September 30, 2024, are as follows:

Classification	8th	9th	10th	11th	12th	13th	14th
Granted by	Hana Bank	Hana Bank	Hana Bank	Hana Bank	Hana Bank	Hana Bank	Hana Bank
Grant date	2018.01.01	2019.01.01	2020.01.01	2021.01.01	2022.01.01	2023.01.01	2024.01.01
Payment date	2020.12.31	2021.12.31	2022.12.31	2023.12.31	2024.12.31	2025.12.31	2026.12.31
Evaluation period	2018.01.01~ 2020.12.31	2019.01.01~ 2021.12.31	2020.01.01~ 2022.12.31	2021.01.01~ 2023.12.31	2022.01.01~ 2024.12.31	2023.01.01~ 2025.12.31	2024.01.01~ 2026.12.31
Reservation period	2021.01.01~ 2021.12.31	2022.01.01~ 2022.12.31	2023.01.01~ 2023.12.31	2024.01.01~ 2024.12.31	2025.01.01~ 2025.12.31	2026.01.01~ 2026.12.31	2027.01.01~ 2027.12.31
Payment period	Within 2022.4.30	Within 2023.4.30	Within 2024.4.30	Within 2025.4.30	Within 2026.4.30	Within 2027.4.30	Within 2028.4.30
Payment method	Market-based compensation	Market-based compensation	Market-based compensation	Market-based compensation	Market-based compensation	Market-based compensation	Market-based compensation
Shares at settlement date (*)	10,250	25,373	12,428	167,266	127,637	143,957	66,312

(*) The Group provides the executives and department heads of the Group with the right to receive stocks. The number of stocks granted is adjusted based on the performance. The number of stocks granted is adjusted based on the assessment indicators that constitutes the Group's performance (relative shareholders' rate of return) of 40% and the Group's performance (Return on Equity ("ROE"), net income, soundness) of 60%.

49-4 There is no stock purchase option that can be exercised as of September 30, 2024.

50. CASH FLOW INFORMATION:

50-1 Details of cash and cash equivalents as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

Classification	September 30, 2024	December 31, 2023
Cash	2,281,385	1,742,359
Due from banks in Korean won	16,933,381	10,450,468
Due from banks in foreign currencies	17,793,147	18,371,452
Subtotal	37,007,913	30,564,279
Restricted balances (*)	1,746,169	1,824,242
Deposits with a maturity of more than three months at the time of acquisition	485,271	457,734
Net amount	34,776,473	28,282,303

(*) Restricted balances exclude reserve deposits that meet the definition of cash equivalents.

50-2 Significant non-cash transactions for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024	For the nine-month period ended September 30, 2023
Recognition in right-of-use assets	377,453	117,281
Recognition in lease liabilities	361,576	102,419
Change in valuation of financial assets at FVOCI	368,858	400,318
Transfer from property, plant and equipment to investment properties	19,962	19,383
Changes in equity on investments in associates	57,753	67,395
Exchange differences on translation of foreign operations	103,191	193,466
Conversion of investment	17,982	188

50-3 Reconciliation of liabilities arising from financing activities for the nine-month periods ended September 30, 2024 and 2023, is as follows
(KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Beginning balance	Financing activities	Exchange rate fluctuation	Fair value hedging	Acquisition and termination of lease	Others	Ending balance
Borrowings	22,033,914	290,701	723,991	–	–	(1)	23,048,605
Debentures	26,603,559	2,426,337	85,898	125,269	–	40,628	29,281,691
Lease liabilities	593,475	(147,509)	–	–	361,576	(6,079)	801,463
Derivative instruments used for hedging (*)	314,342	(22,560)	–	(96,228)	–	(8,754)	186,800
Total	49,545,290	2,546,969	809,889	29,041	361,576	25,794	53,318,559

(*) The amount offset between liabilities and assets.

For the nine-month period ended September 30, 2023:

Classification	Beginning balance	Financing activities	Exchange rate fluctuation	Fair value hedging	Acquisition and termination of lease	Others	Ending balance
Borrowings	22,256,597	1,242,437	1,112,262	–	–	–	24,611,296
Debentures	26,233,339	(1,509,267)	249,384	54,932	–	3,456	25,031,844
Lease liabilities	667,779	(150,690)	–	–	102,419	(221)	619,287
Derivative instruments used for hedging (*)	412,250	13,433	–	38,746	–	(6,262)	458,167
Total	49,569,965	(404,087)	1,361,646	93,678	102,419	(3,027)	50,720,594

(*) The amount offset between liabilities and assets.

51. RELATED PARTIES:

51-1 Transactions with related parties for the nine-month periods ended September 30, 2024 and 2023, are summarized as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
Ultimate parent company	HFG	202	1,062	59	–	535	–	–
Associates(*1)	Bank of Jilin	2	1	–	–	89	–	2
	CM International financing leases	1,571	–	–	1,723	–	–	–
	Beijing Langzi Asset Management	–	1	1	–	107	–	–
	Hana Equity Partners I, L.P	–	–	–	–	2	–	–
	Korea Credit Bureau	334	–	–	–	–	–	9
	Templeton Hana Asset Management Co., Ltd.	–	–	–	–	299	–	–
	Hana – KVIC Unicorn Fund of Funds	–	–	–	–	107	–	–
	BIDV	6	10	1,028	–	174	4	114
	Hana Micro Finance Ltd.	–	488	–	–	–	–	–
	Hana Ventures No.7 New Technology Investment Association	–	2	–	–	–	–	–
	TossBank Corp.	470	49	2	–	1	–	5
	Sinsa Station area Complex Development PFV Co., Ltd.	(157)	–	–	(9,957)	–	–	–
	Hana-Capstone AI Platform Fund	–	–	4	–	33	–	–
	Cheongna Medipolis PFV Co., Ltd.	–	15,000	–	–	70	–	–
	Hana Beyond Finance Fund	–	18	–	–	43	–	–
	Union No.2 New Technology Financial Investment Association	–	–	–	–	9	–	–
	Artificial Photosynthesis Research Institute Co., Ltd.	–	–	–	–	14	–	–
	KEB Hana stay No.1 Consignment	405	3	–	1	3	–	–
	Mashup Angels No.2 Valuation Development Venture Investment Association	–	9	4	–	63	–	–
	Bitgo Korea Co., Ltd.	–	–	–	–	33	–	–
Subtotal		2,631	15,581	1,039	(8,233)	1,047	4	130
Joint venture	PT. SINARMAS HANA FINANCE	2,100	1	–	33	–	–	–
Entities under common control (*2)	Hana Securities Co., Ltd.	175	2,377	177,276	6	6,737	6	194,984
	Hana Card Co., Ltd.	351	31,560	7,172	20	6,245	4,017	24
	Hana Capital Co., Ltd.	–	691	243	1	220	–	565
	Hana Asset Trust Co., Ltd.	–	40	–	–	608	3,408	–
	Hana Alternative Asset Management Co., Ltd.	98	11	67	–	337	–	–
	Hana TI Co., Ltd.	3	13	37	–	6,241	7,397	55,572
	Hana Life Insurance Co., Ltd.	125	12,816	5,817	–	55	–	736
	Hana Savings Bank	–	24	–	–	–	–	–
	Hana Investors Services Company	95	4	29	–	215	–	–
	Hana Ventures Inc.	–	–	2,144	–	186	2,305	–
	Hana F&I Inc	1,488	553	20	(61)	96	–	–
	Hana Ventures No.4 New Technology Investment Association	–	1	–	–	–	–	–
	Hana Insurance Co., Ltd.	–	130	11	–	–	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-1	–	–	561	–	–	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-2	–	–	281	–	–	–	–

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
	Hana Ventures No.6 New Technology Investment Association	-	1	-	-	-	-	-
	Hana Alternative Investment Chinese logistics Private Trust No.3-4	-	-	38	-	-	-	-
	Hana Alternative Investment Chinese logistics Private Trust No.1	404	-	-	-	-	-	-
	Hana Alternative Investment General Private Real Estate Investment Trust No.180	-	-	1,326	-	-	-	-
	Finnq Co., Ltd.	-	102	-	-	1,165	386	-
	Hana Alternative Investment infra general Private Trust No.1	-	-	840	-	-	-	-
	Hana Valance General Investment Private Trust No.1	-	-	197	-	-	-	-
	Hana Private Securities Investment Trust No.13 [Bonds]	-	-	2,380	-	-	-	-
	Hana Private Securities Investment Trust No.14 [Bonds]	-	-	2,374	-	-	-	-
Subtotal		2,739	48,323	200,813	(34)	22,105	17,519	251,881
Other related parties	Mirae Credit Information Services Corp.	-	12	72	-	19	1,039	-
	FNU Credit Information Co., Ltd.	-	-	-	-	1	-	-
	Lotte Ventures Co., Ltd.	-	-	3	-	-	-	-
	Hana Power Infrastructure No.1 Private Equity Investment company	327	60	-	(135)	117	-	-
	KORAMCO THE ONE REIT	-	-	-	-	-	-	1,144
	Daegu MBC Site Complex Development PFV	6,850	83	-	285	-	-	-
	YH Leisure Development Co., Ltd.	3,724	-	-	(4)	-	-	-
	Civic Center PFV Co., Ltd.	1,585	6	-	191	-	-	-
	Hana Ventures No.5 New Technology Business Investment Association	-	-	-	-	1	-	-
	Hana Innovation Venture Scale-Up Fund	-	-	-	-	15	-	-
	Gyeonggi Hana Turn around Fund No.2	-	-	4	-	11	-	-
	Hana Untact Digital Innovation Fund	-	-	4	-	5	-	-
	Hana Financial Twenty-first Special Purpose Acquisition Company	-	-	-	-	2	-	-
	Daeyoung DLMFV Co., Ltd.	-	-	-	-	1	-	-
	Hana Financial Twenty-second Special Purpose Acquisition Company	-	-	-	-	21	-	-
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	-	-	-	-	2	-	-
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	-	-	-	-	86	-	-
	Hana Financial Twenty-sixth Special Purpose Acquisition Company	-	-	-	-	43	-	-
	Hana Financial Twenty-seventh Special Purpose Acquisition Company	-	-	-	-	23	-	-
	Anda Mobility Infrastructure Investment Association No.1	-	-	-	-	1	-	-
	SmilegateKairos Server one Equity Partnership	-	-	-	-	11	-	-
	Hana Financial Twenty-eighth Special Purpose Acquisition Company	-	-	-	-	56	-	-
	Hana Financial Twenty-ninth Special Purpose Acquisition Company	-	-	-	-	26	-	-
	Anda Mobility Infrastructure Investment Association No.2	-	-	-	-	1	-	-
	Deoham Green Energy Private Equity Partnership	-	-	462	-	-	-	-
	Hana Financial Thirtieth Special Purpose Acquisition Company	-	-	-	-	56	-	-
	Hana Financial Thirty-first Special Purpose Acquisition Company	-	-	-	-	40	-	-

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
	Fount Finance	-	-	-	-	29	-	-
	Hana Financial Thirty-second Special Purpose Acquisition Company	-	-	-	-	9	-	-
	Hana Financial Thirty-third Special Purpose Acquisition Company	-	-	-	-	13	-	-
	Hana Financial Thirty-fourth Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Subtotal	12,486	161	545	337	590	1,039	1,144
Key management	Key management	44	-	-	-	148	-	-
	Total	20,202	65,128	202,456	(7,897)	24,425	18,562	253,155

(*1) Including transactions with subsidiaries of related companies.

(*2) Including transactions with subsidiaries of the same controlling company.

For the nine-month period ended September 30, 2023:

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
Ultimate parent company	HFG	258	1,155	9	–	160	–	–
Associates(*1)	Bank of Jilin	86	2	–	–	–	–	4
	CM International financing leases	1,001	–	–	(998)	–	–	–
	Beijing Langzi Asset Management	–	1	1	–	93	–	–
	Hana Equity Partners I, L.P	–	–	–	–	3	–	–
	Korea Credit Bureau	662	–	–	(10)	10	–	1
	Templeton Hana Asset Management Co., Ltd.	–	–	–	–	279	–	–
	Hana – KVIC Unicorn Fund of Funds	–	–	–	–	121	–	–
	BIDV	249	4	269	3	682	4	264
	Hana Micro Finance Ltd.	–	798	–	–	–	–	–
	Hana Ventures No. 7 New Technology Investment Association	–	2	–	–	4	–	–
	Horizon Private Equity Fund	–	–	–	–	67	–	–
	TossBank Corp.	2,386	–	–	–	62	–	–
	Shinjin International Corporation	314	2	–	(107)	–	–	–
	Sinsa Station area Complex Development PFV Co., Ltd.	953	–	–	(45)	–	–	–
	Hana-Capstone AI Platform Fund	–	–	–	–	39	–	–
	Cheongna Medipolis PFV Co., Ltd.	–	–	–	–	70	–	–
	Hana Beyond Finance Fund	–	18	–	–	506	–	–
	Union No.2 New Technology Financial Investment Association	–	–	–	–	4	–	–
	KEB Hana stay No.1 Consignment Management Real Estate Investment Company	250	2	–	6	7	–	–
	Subtotal	5,901	829	270	(1,151)	1,947	4	269
Joint venture	PT. SINARMAS HANA FINANCE	2,088	2	–	76	–	–	–
Entities under common control (*2)	Hana Securities Co., Ltd.	142	2,001	358,525	17	6,902	4	359,529
	Hana Card Co., Ltd.	449	32,502	6,674	50	4,096	4,060	32
	Hana Capital Co., Ltd.	–	627	12	59	266	–	36
	Hana Asset Trust Co., Ltd.	–	52	–	–	2,636	4,419	–
	Hana Alternative Asset Management Co., Ltd.	125	32	–	–	271	–	–
	Hana TI Co., Ltd.	4	15	66	–	6,311	6,303	55,393
	Hana Life Insurance Co., Ltd.	138	12,340	7,146	–	35	–	549
	Hana Savings Bank	–	26	–	–	–	–	–
	Hana Fund Services Company	121	2	–	–	82	–	–
	Hana Ventures Inc.	–	–	–	–	269	966	–
	Hana Alternative Special Investment Private Trust No.123-1	–	–	2,144	–	–	–	–
	Hana F&I Inc	1,620	335	–	235	75	–	–
	Hana Ventures No.4 New Technology Business Investment	–	1	–	–	1	–	–
	Hana Insurance Co., Ltd.	–	100	14	–	–	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-1	–	–	537	–	–	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-2	–	–	222	–	–	–	–
	Hana Ventures No.6 new technology business investment Association	–	1	–	–	1	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-4	–	–	910	–	–	–	–
	Hana Alternative General Private Real Estate Investment Trust No.180	–	–	781	–	–	–	–
	Finnq Co., Ltd.	–	26	–	–	1,660	665	–
	Subtotal	2,599	48,060	377,031	361	22,605	16,417	415,539
	Mirae Credit Information Services Corp.	66	11	72	(9)	47	815	–

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
Other related parties	Hana UBS Asset Management Co., Ltd.	-	1	11	-	469	-	7
	FNU Credit Information Co., Ltd.	-	-	-	-	2	-	-
	Lotte Ventures Co., Ltd.	-	-	1	-	-	-	-
	Hana Power Infrastructure No.1 Private Equity Investment company	449	60	-	(27)	25	-	-
	KORAMCO THE ONE REIT	-	-	-	-	-	-	1,129
	Daegu MBC Site Complex Development PFV	5,687	135	-	638	-	-	-
	Apollo Private Equity Limited Partnership	-	-	709	-	-	-	-
	Lakebridge Growth Enterprise No.1 Private Equity Limited Partnership	-	-	1,442	-	1	-	-
	YH Leisure Development Co., Ltd.	3,091	-	-	5	42	-	-
	Hana Ventures No.5 New Technology Business Investment Association	-	-	-	-	9	-	-
	Hana Innovation Venture Scale-Up Fund	-	-	-	-	100	-	-
	Hana Must 7th Enterprise Acquisition Purpose Co., Ltd.	-	-	-	-	1	-	-
	Hana Financial Company No. 16 Acquisition Purpose Co., Ltd.	-	-	-	-	1	-	-
	Hana Financial Company No. 19 Acquisition Purpose Co., Ltd.	-	-	-	-	13	-	-
	Gyeonggi Hana Turn around Fund No.2	-	-	-	-	105	-	-
	Hana Untact Digital Innovation Fund	-	-	-	-	54	-	-
	Hana Financial Twenty-first Special Purpose Acquisition Company	-	-	-	-	74	-	-
	Hana Financial Twenty-second Special Purpose Acquisition Company	-	-	-	-	57	-	-
	Hana Financial Twenty-third Special Purpose Acquisition Company	-	-	-	-	53	-	-
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	-	-	-	-	87	-	-
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	-	-	-	-	205	-	-
	Hana Financial Twenty-sixth Special Purpose Acquisition Company	-	-	-	-	60	-	-
	Hana Financial Twenty-seventh Special Purpose Acquisition Company	-	-	-	-	60	-	-
	Anda Mobility Infrastructure Investment Association No.1	-	-	-	-	1	-	-
	Hana Financial Twenty-eighth Special Purpose Acquisition Company	-	-	-	-	11	-	-
	Hana Financial Twenty-ninth Special Purpose Acquisition Company	-	-	-	-	5	-	-
	Anda Mobility Infrastructure Investment Association No.2	-	-	-	-	1	-	-
	Deoham Green Energy Private Equity Partnership	-	-	60	-	-	-	-
	VL Taub Private Investment Limited Partnership	-	-	100	-	-	-	-
Subtotal		9,293	207	2,395	607	1,483	815	1,136
Key management	Key management	27	-	-	-	124	-	-
Total		20,166	50,253	379,705	(107)	26,319	17,236	416,944

(*1) Including transactions with subsidiaries of related companies.

(*2) Including transactions with subsidiaries of the same controlling company.

51-2 Significant financial transactions with related parties for the nine-month periods ended September 30, 2024 and 2023, are as follows:

51-2-1 Details of significant loans to related parties for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Entity	Loans (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
Associates(*3)	Bank of Jilin	-	4,000	(4,000)	-	-
	CM International financing leases	59,778	61,930	(62,032)	2,254	61,930
	Korea Credit Bureau	10,000	-	-	-	10,000
	BIDV	-	21,440	(21,440)	-	-
	TossBank Corp.	-	34,730	(34,730)	-	-
	Sinsa Station area Complex Development PFV Co., Ltd.	9,800	-	-	(9,800)	-
	KEB Hana stay No.1 Consignment Management Real Estate Investment Company	18,641	-	-	-	18,641
Subtotal		98,219	122,100	(122,202)	(7,546)	90,571
Joint venture	PT. SINARMAS HANA FINANCE	38,051	35,351	(35,330)	1,639	39,711
Entities under common control (*4)	Hana Securities Co., Ltd.	2,601	2,351	(2,467)	-	2,485
	Hana F&I Inc	90,200	974,100	(1,064,300)	-	-
	Hana Alternative Investment Chinese logistics Private Trust No.1	6,447	499	(348)	-	6,598
Subtotal		99,248	976,950	(1,067,115)	-	9,083
Other related parties	Hana Power Infrastructure No. 1 Private Investment Co., Ltd.	10,698	-	(10,698)	-	-
	Daegu MBC Site Complex Development PFV	116,895	18,879	-	-	135,774
	YH Leisure Development Co., Ltd.	103,000	-	(3,000)	-	100,000
	Civic Center PFV Co., Ltd.	25,000	3,703	-	-	28,703
Subtotal		255,593	22,582	(13,698)	-	264,477
Key management	Key management	895	886	-	-	1,781
Total		492,006	1,157,869	(1,238,345)	(5,907)	405,623

(*1) Intraday overdrafts between related parties are excluded.

(*2) Others include the effect of changes in exchange rate.

(*3) Including transactions with subsidiaries of related companies.

(*4) Including transactions with subsidiaries of the same controlling company.

For the nine-month period ended September 30, 2023:

Classification	Entity	Loans (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
Associates(*3)	Bank of Jilin	3,200	112,750	(115,950)	–	–
	Beijing Langzi Asset Management	61,969	60,722	(62,633)	664	60,722
	Korea Credit Bureau	40,000	20,000	(40,000)	–	20,000
	BIDV	6,337	11,020	(14,383)	388	3,362
	TossBank Corp.	–	1,720,000	(1,720,000)	–	–
	Shinjin International Corporation	1,444	–	(1,444)	–	–
	Sinsa Station area Complex Development PFV Co., Ltd.	9,800	–	–	–	9,800
	KEB Hana stay No.1 Consignment Management Real Estate Investment Company	–	14,189	–	–	14,189
Subtotal		122,750	1,938,681	(1,954,410)	1,052	108,073
Joint venture	PT. SINARMAS HANA FINANCE	37,144	1,227	(793)	2,709	40,287
Entities under common control (*4)	Hana Securities Co., Ltd.	3,239	–	(638)	–	2,601
	Hana F&I Inc	–	890,200	(710,500)	–	179,700
Subtotal		3,239	890,200	(711,138)	–	182,301
Other related parties	Mirae Credit Information Services Corp.	7,000	–	(7,000)	–	–
	Hana Power Infrastructure No. 1 Private Investment Co., Ltd.	11,116	–	(418)	–	10,698
	Daegu MBC Site Complex Development PFV	94,708	15,787	–	–	110,495
	YH Leisure Development Co., Ltd.	112,323	–	(8,323)	–	104,000
Subtotal		225,147	15,787	(15,741)	–	225,193
Key management	Key management	774	137	–	–	911
Total		389,054	2,846,032	(2,682,082)	3,761	556,765

- (*1) Intraday overdrafts between related parties are excluded.
- (*2) Others include the effect of changes in exchange rate.
- (*3) Including transactions with subsidiaries of related companies.
- (*4) Including transactions with subsidiaries of the same controlling company.

51-2-2 Details of significant cash investments with related parties for the nine-month periods ended September 30, 2024 and 2023, are as follows
(KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Entity	Investment in cash	
		Investment	Collection and others
Associates (*1)	Beijing Langzi Asset Management	–	(1,215)
	Korea Credit Bureau	–	(90)
	Templeton Hana Asset Management Co., Ltd.	–	(396)
	Company K Startup Winwin Fund	–	(790)
	BSK-6 Patent Technology Investment	–	(955)
	Hana – KVIC Unicorn Fund of Funds	–	(6,000)
	Harvest Private Equity Fund Specializing in Start-Up and Venture Business	–	(560)
	All Together Korea Fund 5	315	(315)
	Growth Finance Hana Corporate Growth General Private Investment Trust	13,500	–
	Taurus Cloud Fund	68	–
	Hana Beyond Finance Fund	8,000	(17,289)
	Defense Technology Innovation General Private Investment Trust (*4)	1,180	–
	Union No.2 New Technology Financial Investment Association	2,400	–
	Hana 1Q Short-Term Financial Bond Active	–	(61,812)
	Bitgo Korea Co., Ltd.	1,499	–
	Hana WISH Value Growth Fund	3,600	–
	Subtotal	30,562	(89,422)
Entities under common control (*2)	Hana Alternative Infra Special Investment Private Trust No.3-1	359	(150)
	Hana Alternative Infra Special Investment Private Trust No.3-2	6,589	(25)
	Hana Alternative Infra Special Investment Private Trust No.3-4	33	–
	Hana Alternative General Private Real Estate Investment Trust No.180	36,595	–
	Hana Alternative Investment Infrastructure General Private Placement Special Asset Investment Trust No.1	15,108	(8,370)
	Hana Balance General Private Securities Investment Trust No.1	–	(11,122)
	Hana Private Securities Investment Trust No.12 [Bonds]	–	(51,550)
	Hana Private Securities Investment Trust No.15 [Bonds]	–	(51,330)
	Hana Private Securities Investment Trust No.16 [Bonds]	–	(51,449)
	Hana HFG Real Estate Financial Stabilization General Private Investment Trust No. 2	19,650	–
	Hana Private Securities Investment Trust No.17 [Bonds]	34,398	–
	Hana Private Securities Investment Trust No.18 [Bonds]	50,000	–
	Hana Private Securities Investment Trust No.19 [Bonds]	34,130	–
	Hana Private Securities Investment Trust No.20 [Bonds]	50,000	–

Classification	Entity	Investment in cash	
		Investment	Collection and others
	Hana Private Securities Investment Trust No.21 [Bonds]	50,000	–
	Subtotal	296,862	(173,996)
Other related parties	Hana Digital Transformation Fund	–	(268)
	Hana Innovation Venture Scale Up FundHana Innovation Venture Scale-up Fund	520	–
	Gyeonggi Hana Turn around Fund No. 2	450	(304)
	Hana Untact Digital Innovation Fund	450	–
	Hana K New deal Unicorn Fund	5,400	(1,056)
	KDBI Hana Business Reorganization Value Business Private Equity Partnership	6,248	–
	Subtotal	13,068	(1,628)
	Total	340,492	(265,046)

- (*1) Including transactions with subsidiaries of related companies.
- (*2) Including transactions with subsidiaries of the same controlling company.
- (*3) The company name has changed from KTOP 25-08 Corporate Bond (A+ or higher) Active

For the nine-month period ended September 30, 2023:

Classification	Entity	Investment in cash	
		Investment	Collection and others
Associates(*1)	Bank of Jilin	–	(13,864)
	Beijing Langzi Asset Management	–	(1,178)
	Korea Credit Bureau	–	(90)
	Templeton Hana Asset Management Co., Ltd.	–	(396)
	BSK-6 Patent Technology Investment	–	(409)
	Hana – KVIC Unicorn Fund of Funds	–	(6,000)
	Harvest Private Equity Fund Specializing in	–	(2,377)
	All Together Korea Fund 5	210	(210)
	TossBank Corp.	8,877	–
	Growth Finance Hana Corporate Growth General Private Investment Trust	4,500	–
	Taurus Cloud Fund	68	–
	Cheongna Medipolis PFV Co., Ltd.	16,628	–
	Hana Beyond Finance Fund	–	(721)
	Defense Technology Innovation General Private Investment Trust	1,475	–
	Hana Proptech New Technology Business	3,000	–
	Union No.2 New Technology Financial Investment Association	1,200	–
	Artificial Photosynthesis Research Institute	1,666	–
Subtotal		37,624	(25,245)
Entities under common control(*2)	KDB Hana Business Reorganization Value Business Private Equity Partnership	27,703	–
	Hana Alternative Investment Private Placement Real Estate Investment Trust No.123-1	–	(7,469)
	Hana Alternative Infra Special Investment Private Trust No.3-1	4,926	(1,250)
	Hana Alternative Infra Special Investment Private Trust No.3-2	–	(31)
	Hana Alternative Infra Special Investment Private Trust No.3-4	–	(597)
	Hana Alternative General Private Real Estate Investment Trust No.180	35,956	–
	Hana Alternative Investment Infrastructure General Private Equity Special Asset Investment Trust No.1	12,072	–
Subtotal		80,657	(9,347)
Other related parties	Hana Digital Transformation Fund	–	(1,000)
	Apollon Private equity fund	–	(394)
	Hit Private Equity Limited Partnership	–	(1,008)
	Hana Innovation Venture Scale Up Fund	–	(208)
	Hana – KVIC Unicorn Fund of Funds	1,800	–
Subtotal		1,800	(2,610)
Total		120,081	(37,202)

(*1) Including transactions with subsidiaries of related companies.

(*2) Including transactions with subsidiaries of the same controlling company.

51-2-3 Details of significant deposits with related parties for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Entity	Deposits (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
Associates(*3)	Templeton Hana Asset Management Co., Ltd.	10,500	–	–	–	10,500
	Hana-Capstone AI Platform Fund	43	–	–	–	43
	Cheongna Medipolis PFV Co., Ltd.	2,570	37	–	–	2,607
	Artificial Photosynthesis Research Institute Co., Ltd.	–	1,100	–	–	1,100
	Mashup Angels No.2 Valuation Development Venture Investment Association	3,250	1,021	(4,271)	–	–
	Bitgo Korea Co., Ltd.	–	4,500	–	–	4,500
Subtotal		16,363	6,658	(4,271)	–	18,750
Entities under common control (*4)	Hana Securities Co., Ltd.	17,000	51,507	(17,000)	–	51,507
	Hana Card Co., Ltd.	10	95,005	(40,010)	–	55,005
	Hana Asset Trust	30,000	5,000	(30,000)	–	5,000
	Hana TI Co., Ltd.	4,288	3,682	(3,592)	(722)	3,656
	Hana Fund Services Company	7,000	2,000	(3,000)	–	6,000
	Hana Ventures Inc.	16,000	–	(9,000)	–	7,000
	Finnq Co., Ltd.	40,000	1,103	(7,103)	–	34,000
	Hana Alternative Investment Asset Management	–	1,461	–	–	1,461
Subtotal		114,298	159,758	(109,705)	(722)	163,629
Other related parties	GMHB Co., Ltd.	100	–	–	–	100
	Hana Financial Twenty-second Special-Purpose Acquisition Company	–	1,500	–	–	1,500
	Hana Financial Twenty-fifth Special-Purpose Acquisition Company	–	6,000	–	–	6,000
	Hana Financial Twenty-sixth Special-Purpose Acquisition Company	1,530	–	–	–	1,530
	Hana Financial Twenty-seventh Special-Purpose Acquisition Company	–	1,600	–	–	1,600
	SmilegateKairos Server one Equity Partnership	520	406	(520)	–	406
	Hana Financial Twenty-eighth Special-Purpose Acquisition Company	2,200	–	–	–	2,200
	Hana Financial Twenty-ninth Special-Purpose Acquisition Company	1,000	–	–	–	1,000
	Hana Financial Thirtieth Special-Purpose Acquisition Company	–	2,300	–	–	2,300
	Hana Financial Thirtieth Special-Purpose Acquisition Company	–	1,650	–	–	1,650
	Fount Finance	–	7,500	(8,000)	1,500	1,000
	Hana Financial Thirtieth Special-Purpose Acquisition Company	–	600	–	–	600
	Hana Financial Thirtieth Special-Purpose Acquisition Company	–	900	–	–	900
	Hana Financial Thirtieth Special-Purpose Acquisition Company	–	900	–	–	900
Subtotal		5,350	22,456	(8,520)	1,500	20,786
Key management	Key management	7,421	–	(2,312)	–	5,109
Total		143,432	188,872	(124,808)	778	208,274

- (*1) Deposits/withdrawals arising from operations between related parties are excluded.
- (*2) Others include the effect of changes in exchange rate.
- (*3) Including transactions with subsidiaries of related companies.
- (*4) Including transactions with subsidiaries of the same controlling company.

For the nine-month period ended September 30, 2023:

Classification	Entity	Deposits (*1)			
		Beginning balance	Increase	Decrease	Ending balance
Associates(*2)	Korea Credit Bureau	8,000	–	(8,000)	–
	Templeton Hana Asset Management Co., Ltd.	10,500	7,500	(7,500)	10,500
	Hana Ventures No.7 New Technology Business Investment Association	200	–	–	200
	HORIZON PRIVATE EQUITY FUND	–	2,944	–	2,944
	Hana-Capstone AI Platform Fund	42	–	–	42
	Cheongna Medipolis PFV Co., Ltd	2,500	70	–	2,570
	Hana Beyond Finance Fund	35,000	–	(25,000)	10,000
Subtotal		56,242	10,514	(40,500)	26,256
Joint venture	PT. SINARMAS HANA FINANCE	5	–	(5)	–
Entities under common control (*3)	Hana Securities Co., Ltd.	11,045	10,015	(13,060)	8,000
	Hana Card Co., Ltd.	10	10	(10)	10
	Hana Capital Co., Ltd.	1,900	–	(200)	1,700
	Hana Asset Trust	175,000	115,000	(245,000)	45,000
	Hana Alternative Asset Management Co., Ltd.	13,000	–	(13,000)	–
	Hana TI Co., Ltd.	–	8,747	(4,340)	4,407
	Hana Fund Services Company	3,000	3,000	(3,000)	3,000
	Hana Ventures Inc.	11,000	59,000	(52,000)	18,000
	Hana Ventures No.4 New Technology Business Investment Association	200	–	(200)	–
	Hana Ventures No.6 New Technology Business Investment Association	200	–	(200)	–
	Finnq Co., Ltd.	47,500	–	(7,500)	40,000
Subtotal		262,855	195,772	(338,510)	120,117
Other related	UBS Hana Asset Management Co., Ltd.	18,000	9,000	(12,000)	15,000
	GMHB Co., Ltd.	100	–	–	100
	YH Leisure Development Co., Ltd.	5,000	–	(5,000)	–
	Hana Ventures No.5 New Technology Business Investment Association	500	–	(100)	400
	Hana Innovation Venture Scale-up Fund	5,000	–	–	5,000
	Hana Financial nineteenth Special-Purpose Acquisition Company	1,813	–	(1,813)	–
	Gyeonggi Hana Turn around Fund No.2	7,000	–	(7,000)	–
	Hana Untact Digital Innovation Fund	3,000	–	(3,000)	–
	Hana Financial Twenty-first Special-Purpose Acquisition Company	2,100	–	–	2,100
	Hana Financial Twenty-second Special-Purpose	1,600	–	–	1,600

Classification	Entity	Deposits (*1)			
		Beginning balance	Increase	Decrease	Ending balance
parties	Acquisition Company				
	Hana Financial Twenty-third Special-Purpose Acquisition Company	1,500	–	–	1,500
	Hana Financial Twenty-fourth Special-Purpose Acquisition Company	2,450	–	–	2,450
	Hana Financial Twenty-fifth Special-Purpose Acquisition Company	5,800	–	–	5,800
	Hana Financial Twenty-sixth Special-Purpose Acquisition Company	–	1,700	–	1,700
	Hana Financial Twenty-seventh Special Purpose Acquisition Company	–	1,650	–	1,650
	Hana Financial Twenty-eighth Special Purpose Acquisition Company	–	2,200	–	2,200
	Hana Financial Twenty-ninth Special Purpose Acquisition Company	–	1,000	–	1,000
Subtotal		53,863	15,550	(28,913)	40,500
Key management	Key management	5,502	–	(688)	4,814
Total		378,467	221,836	(408,616)	191,687

- (*1) Deposits/withdrawals arising from operations between related parties are excluded.
- (*2) Including transactions with subsidiaries of related companies.
- (*3) Including transactions with subsidiaries of the same controlling company.

51-2-4 Details of significant borrowings from related parties for the nine-month periods ended September 30, 2024 and 2023, are as follows (KRW in millions):

For the nine-month period ended September 30, 2024:

Classification	Entity	Beginning balance	Increase	Decrease	Others (*1)	Ending balance
Associate (*2)	Bank of Jilin	36,276	–	(37,644)	1,368	–
	BIDV	–	228,872	(202,072)	–	26,800
Total		36,276	228,872	(239,716)	1,368	26,800

(*1) Others include the effect of changes in exchange rate.

(*2) Including transactions with subsidiaries of related companies.

For the nine-month period ended September 30, 2023:

Classification	Entity	Beginning balance	Increase	Decrease	Others (*1)	Ending balance
Associate (*2)	BIDV	10,740	81,548	(92,568)	280	–

(*1) Others include the effect of changes in exchange rate.

(*2) Including transactions with subsidiaries of related companies.

51-3 Outstanding receivables and payables with related parties arising from the above transactions as of September 30, 2024, and December 31, 2023, are summarized as follows (KRW in millions):

September 30, 2024:

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Ultimate parent company	Hana Financial Group (HFG)	-	5,229	-	11,800	242,417
Associate (*1)	Bank of Jilin	-	-	-	4,670	9,753
	CM International financing leases	61,930	-	49,588	18	-
	Beijing Langzi Asset Management	-	-	-	2,007	-
	Korea Credit Bureau	10,000	-	4	816	-
	Templeton Hana Asset Management Co., Ltd.	-	-	-	11,787	-
	Midan City Development Co., Ltd.	-	-	-	2	-
	Hana – KVIC Unicorn Fund of Funds	-	-	-	2,722	-
	BIDV	-	7,934	-	34,389	26,911
	Hana Ventures No.7 New Technology Business Investment Association	-	-	-	271	-
	TossBank Corp.	-	45,684	-	-	45,902
	SHINJIN INTERNATIONAL CORPORATION	-	1	-	-	-
	Hana-Capstone AI Platform Fund	-	-	-	10,547	-
	Cheongna Medipolis PFV Co., Ltd	-	-	-	2,607	-
	Hana Beyond Finance Fund	-	-	-	15,970	-
	Union No.2 New Technology Financial Investment Association	-	-	-	6,340	-
	Artificial Photosynthesis Research Institute Co., Ltd	-	-	-	1,130	-
	KEB Hana stay No.1 Consignment Management Real Estate Investment Company	18,641	-	7	3,123	-
	Mashup Angels No.2 Valuation Development Venture Investment Association	-	-	-	1,273	-
	Bitgo Korea Co., Ltd.	-	-	-	5,173	-
	Hana WISH Value Growth Fund	-	-	-	7,898	-
Subtotal		90,571	53,619	49,599	110,743	82,566
Joint venture	PT. SINARMAS HANA FINANCE	39,711	49	279	1	-
Entities under common control (*2)	Hana Securities Co., Ltd.	2,485	216,889	119	421,522	222,112
	Hana Card Co., Ltd.	-	9,597	219	513,565	51,692
	Hana Capital Co., Ltd.	-	7	113	421,222	4,927
	Hana Asset Trust Co., Ltd.	-	1	-	29,135	81
	Hana Alternative Asset Management Co., Ltd.	-	2,498	-	106,430	941
	Hana TI Co., Ltd.	-	195,601	-	13,601	214,211
	Hana Life Insurance Co., Ltd.	-	5,597	-	4	15,279
	Hana Savings Bank	-	1	-	-	-
	Hana Fund Services Company	-	2,416	-	7,276	814
	Hana Ventures Inc.	-	-	-	11,306	1,377
	Hana F&I Inc	-	845	141	62,708	271
	Hana Ventures No.4 New Technology Business Investment	-	-	-	117	-
	Hana Insurance Co., Ltd.	-	2	-	367	-

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
	HANA ASSET MANAGEMENT ASIA PTE. LTD.	-	-	-	7,811	-
	Hana Ventures No.6 New Technology Business Investment	-	-	-	16	-
	Hana Alternative Investment Chinese logistics Private Trust No.1	6,598	-	-	-	-
	Finng Co., Ltd.	-	-	-	39,265	-
Subtotal		9,083	433,454	592	1,634,345	511,705
Other related parties	Mirae Credit Information Services Corp.	-	-	-	1,486	-
	F&U Credit Information Co., Ltd.	-	-	-	1,709	-
	Lotte Ventures Corp.	-	-	-	16	-
	Hana Power Infrastructure No.1 Private Investment Co., Ltd.	-	-	-	3,058	-
	GMHB Co., Ltd.	-	-	-	100	-
	KORAMCO THE ONE REIT	-	1,354	-	-	-
	Daegu MBC Site Complex Development PFV	135,774	-	2,069	3	-
	Hlt Private Equity Limited Partnership	-	-	-	2	-
	YH Leisure Development Co., Ltd.	100,000	-	137	234	-
	Creation Innovation Co., Ltd	-	-	-	11	-
	Civic Center PFV Co., Ltd.	28,703	-	191	-	-
	Hana Ventures No.5 New Technology Business Investment Association	-	-	-	417	-
	Hana Innovation Venture Scale-Up Fund	-	-	-	9,297	-
	Hyoje PFV Co., Ltd.	-	-	-	39	-
	Hana Must 7th Enterprise Acquisition Purpose Co., Ltd.	-	-	-	12	-
	Hana Financial Company No.16 Acquisition Purpose Co., Ltd.	-	-	-	20	-
	People Korea Two Co., Ltd.	-	-	-	29	-
	Gyeonggi Hana Turn around Fund No.2	-	-	-	650	-
	Hana Untact Digital Innovation Fund	-	-	-	1,379	-
	Imgok Rental Housing Co., Ltd.	-	-	-	1	-
	Hana Financial Twenty-first Special-Purpose Acquisition Company	-	-	-	2,567	-
	Choice & Soyern Construction Co., Ltd.	-	-	-	104	-
	Daeyoung DLMFV Co., Ltd.	-	-	-	634	-
	Hana Financial Twenty-second Special Purpose Acquisition Company	-	-	-	2,051	-
	Hana Financial Twenty-fifth Special-Purpose Acquisition Company	-	-	-	6,398	-
	Eugene Asia Food Tech Fund-1	-	-	-	159	-
	Hana Financial Twenty-sixth Special Purpose Acquisition Company	-	-	-	2,228	-
	Hana Financial Twenty-seventh Special Purpose Acquisition Company	-	-	-	2,093	-
	Anda Mobility Infrastructure Investment Association No.1	-	-	-	583	-
	SmilegateKairos Server one Equity Partnership	-	-	-	406	-
	Hana Financial Twenty-eighth Special-Purpose Acquisition Company	-	-	-	3,248	-
	Hana Financial Twenty-ninth Special-Purpose Acquisition Company	-	-	-	2,000	-
	Anda Mobility Infrastructure Investment Association No.2	-	-	-	535	-
	Hlt-DCP Equipment New Technology Association No.1	-	-	-	137	-
	Hana Financial Thirtieth Special Purpose Acquisition Company	-	-	-	3,029	-

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
	Hana Financial Thirth-first Special Purpose Acquisition Company	-	-	-	2,198	-
	Fount Finance	-	-	-	1,253	-
	Hana Financial Thirth-second Special Purpose Acquisition Company	-	-	-	1,018	-
	Hana Financial Thirth-third Special Purpose Acquisition Company	-	-	-	1,221	-
	Hana Financial Thirth-fourth Special Purpose Acquisition Company	-	-	-	1,981	-
	Subtotal	264,477	1,354	2,397	52,306	-
Key management	Key management	1,781	-	1	6,060	-
	Total	405,623	493,705	52,868	1,815,255	836,688

(*1) Including transactions with subsidiaries of related companies.

(*2) Including transactions with subsidiaries of the same controlling company.

December 31, 2023:

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Ultimate parent company	Hana Financial Group (HFG)	-	6,578	-	281,569	86,654
Associate (*1)	Bank of Jilin	-	-	-	3,068	36,450
	OM International financing leases	59,778	-	47,866	17	-
	Beijing Langzi Asset Management	-	-	-	3,035	-
	Hana Equity Partners I, L.P	-	-	-	114	-
	Korea Credit Bureau	10,000	-	4	894	-
	Templeton Hana Asset Management Co., Ltd.	-	-	-	11,391	-
	Midan City Development Co., Ltd.	-	-	-	2	-
	Hana - KVIC Unicorn Fund of Funds	-	-	-	1,863	-
	BIDV	-	1,270	-	372	835
	Hana Ventures No.7 New Technology Business Investment Association	-	-	-	385	-
	SHINJIN INTERNATIONAL CORPORATION	-	1	-	-	-
	Sinsa Station area Complex Development PFV Co., Ltd.	9,800	-	9,957	-	-
	Hana-Capstone AI Platform Fund	-	-	-	14,462	-
	Cheongna Medipolis PFV Co., Ltd	-	-	-	2,570	-
	Hana Beyond Finance Fund	-	-	-	14,913	-
	Union No.2 New Technology Financial Investment Association	-	-	-	627	-
	Artificial Photosynthesis Research Institute Co., Ltd	-	-	-	1,718	-
	KEB Hana stay No.1 Consignment Management Real Estate Investment Company	18,641	-	6	7,211	-
	Mashup Angels No.2 Valuation Development Venture Investment Association	-	-	-	4,453	-
	Subtotal	98,219	1,271	57,833	67,095	37,285
Joint venture	PT. SINARMAS HANA FINANCE	38,051	54	246	3	-
Entities under common control (*2)	Hana Securities Co., Ltd.	2,601	239,866	112	555,567	237,736
	Hana Card Co., Ltd.	-	11,961	199	918,319	47,505
	Hana Capital Co., Ltd.	-	27	112	134,104	4,789
	Hana Asset Trust Co., Ltd.	-	1	-	33,937	373
	Hana Alternative Asset Management Co., Ltd.	-	3,172	-	112,125	968
	Hana TI Co., Ltd.	-	207,398	-	17,932	221,166
	Hana Life Insurance Co., Ltd.	-	5,454	-	-	3,769
	Hana Investors Services Company	-	3,067	-	7,758	819
	Hana Ventures Inc.	-	-	-	21,007	636
	Hana F&I Inc	90,200	1,073	202	36,067	283
	Hana Ventures No.4 New Technology Business Investment Association	-	-	-	148	-
	Hana Insurance Co., Ltd.	-	1	-	519	-
	Hana Ventures No.6 New Technology Business Investment Association	-	-	-	116	-
	Hana Alternative Investment Chinese logistics Private Trust No.1	6,447	-	-	-	-
	Finnq Co., Ltd.	-	-	-	46,270	-
	Subtotal	99,248	472,020	625	1,883,869	518,044
	Hana Power Infrastructure No.1 Private Investment Co., Ltd.	10,698	-	135	37,978	-
	Mirae Credit Information Services Corp.	-	-	-	1,888	-
	F&U Credit Information Co., Ltd.	-	-	-	996	-

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Other related parties	Lotte Ventures Corp.	-	-	-	1,554	-
	GMHB Co., Ltd.	-	-	-	100	-
	KORAMCO THE ONE REIT	-	1,354	-	-	-
	Daegu MBC Site Complex Development PFV	116,895	-	1,785	2	-
	YH Leisure Development Co., Ltd.	103,000	-	141	164	-
	Creation Innovation Co., Ltd.	-	-	-	106	-
	Hana Ventures No.5 New Technology Business Investment Association	-	-	-	509	-
	Hana Innovation Venture Scale-Up Fund	-	-	-	5,564	-
	Hana Must 7th Enterprise Acquisition Purpose Co., Ltd.	-	-	-	1,331	-
	People Korea Two Co., Ltd.	-	-	-	36	-
	Gyeonggi Hana Turn around Fund No.2	-	-	-	6,120	-
	Hana Untact Digital Innovation Fund	-	-	-	2,477	-
	Imgok Rental Housing Co., Ltd.	-	-	-	1	-
	Hana Financial Twenty-first Special-Purpose Acquisition Company	-	-	-	2,624	-
	Choice & Sojern Construction Co., Ltd.	-	-	-	104	-
	Hana Financial Twenty-second Special-Purpose Acquisition Company	-	-	-	2,050	-
	Hana Financial Twenty-third Special-Purpose Acquisition Company	-	-	-	1,475	-
	Hana Financial Twenty-fourth Special-Purpose Acquisition Company	-	-	-	3,024	-
	Hana Financial Twenty-fifth Special-Purpose Acquisition Company	-	-	-	6,636	-
	Eugene Asia Food Tech Fund-1	-	-	-	204	-
	Hana Financial Twenty-sixth Special-Purpose Acquisition Company	-	-	-	2,238	-
	Hana Financial Twenty-seventh Special-Purpose Acquisition Company	-	-	-	2,101	-
	Anda Mobility Infrastructure Investment Association No.1	-	-	-	760	-
	Hana Financial Twenty-eighth Special-Purpose Acquisition Company	-	-	-	3,262	-
	Hana Financial Twenty-ninth Special-Purpose Acquisition Company	-	-	-	2,007	-
	Anda Mobility Infrastructure Investment Association No.2	-	-	-	809	-
	Hii-DCP Equipment New Technology Association No.1	-	-	-	141	-
	Hana Financial Thirtieth Special-Purpose Acquisition Company	-	-	-	3,051	-
	Hana Financial Thirty-first Special-Purpose Acquisition Company	-	-	-	2,388	-
Subtotal		230,593	1,354	2,061	91,700	-
Key management	Key management	895	-	1	9,367	-
Total		467,006	481,277	60,766	2,333,603	641,983

(*1) Including transactions with subsidiaries of related companies.

(*2) Including transactions with subsidiaries of the same controlling company.

51-4 Significant payment guarantees and collaterals provided to related parties as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Entity	Payment guarantees or collaterals provided	Limit
Associate (*1)	Korea Credit Bureau	Unused loan commitments in Korean won	30,000
	Hana Micro Finance Ltd.	Acceptance and guarantees in foreign currencies	34,310
	All Together Korea Fund 5	Purchase of securities	990,000
	Taurus Cloud Fund	Purchase of securities	362
	Hana Beyond Finance Fund	Purchase of securities	40,000
	Mashup Angels No.2 Valuation Development Venture Investment Association	Purchase of securities	1,800
	Defense Technology Innovation General Private Investment Trust	Purchase of securities	48,970
	Growth Finance Hana Corporate Growth General Private Investment Trust	Purchase of securities	47,700
	Union No.2 New Technology Financial Investment Association Investment Association	Purchase of securities	8,400
	Hana WSH Value Growth Fund	Purchase of securities	7,200
	KEB Hana stay No.1 Consignment Management Real Estate Investment Company	Unused loan commitments in Korean won	1,259
Joint venture	PT. SINARMAS HANA FINANCE	Unused loan commitments in foreign currencies	5,232
Entities under common control (*2)	Hana Securities Co., Ltd.	Unused guarantees in Korean currencies	130,000
		Unused loan commitments in foreign won	1,873
		Acceptance and guarantees in Korean won	320
	Hana Card Co., Ltd.	Unused loan commitments in Korean won	500,000
		Acceptance and guarantees in foreign currencies	40,000
	Hana Capital Co., Ltd.	Unused loan commitments in Korean won	260,000
	Hana TI Co., Ltd.	Purchase of securities	7
	Hana F&I Inc	Purchase of securities	340,000
	Hana Alternative Infra Special Investment Private Trust No.3-1	Purchase of securities	1,726
	Hana Alternative Infra Special Investment Private Trust No.3-2	Purchase of securities	319
	Hana Alternative Infra Special Investment Private Trust No.3-4	Purchase of securities	12,517
	Hana Alternative Investment Infra general Private Trust No.1	Purchase of securities	24,125
	Hana Alternative General Private Real Estate Investment Trust No.180	Purchase of securities	41,807
	Hana HFG Real Estate Financial Stabilization General Private Investment Trust No.2	Purchase of securities	20,350
Other related parties	Hana Digital Transformation Fund	Purchase of securities	1,000
	Daegu MBC Site Complex Development PFV	Unused loan commitments in Korean won	24,226
	Gyeonggi Hana Turn around Fund No.2	Purchase of securities	304
	Notic Green Innovation ESG Joint Investment No.1 Private Investment Limited Partnership	Purchase of securities	196
	Civic Center PFV Co., Ltd.	Unused loan commitments in Korean won	1,297
	KDBI Hana Business Reorganization Value Business Private Equity Partnership	Purchase of securities	36,050
	Hana K-New Deal Unicorn Fund	Purchase of securities	3,600

(*1) Including transactions with subsidiaries of related companies.

(*2) Including transactions with subsidiaries of the same controlling company.

December 31, 2023:

Classification	Entity	Payment guarantees or collaterals provided	Limit
Associate (*1)	Korea Credit Bureau	Unused loan commitments in Korean won	30,000
	Hana Micro Finance Ltd.	Acceptance and guarantees in foreign currencies	64,470
	All Together Korea Fund 5	Purchase of securities	990,000
	Growth Finance Hana Corporate Growth General Private Investment Trust	Purchase of securities	61,200
	Taurus Cloud Fund	Purchase of securities	430
	Hana Beyond Finance Fund	Purchase of securities	48,000
	Defense Technology Innovation General Private Investment Trust	Purchase of securities	50,150
	Union No.2 New Technology Financial Investment Association	Purchase of securities	10,800
	KEB Hana stay No.1 Consignment Management Real Estate Investment Company	Acceptance and guarantees in foreign currencies	1,259
	Mashup Angels No.2 Valuation Development Venture Investment Association	Purchase of securities	1,800
Joint venture	PT. SINARMAS HANA FINANCE	Unused loan commitments in foreign currencies	3,113
Entities under common control (*2)	Hana Securities Co., Ltd.	Unused loan commitments in Korean won	130,000
		Acceptance and guarantees in Korean won	626
	Hana Card Co., Ltd.	Unused loan commitments in Korean won	500,000
		Acceptance and guarantees in foreign currencies	40,000
	Hana Capital Co., Ltd.	Unused loan commitments in Korean won	260,000
	Hana TI Co., Ltd.	Unused loan commitments in Korean won	7
	Hana F&I Inc.	Unused loan commitments in Korean won	249,800
	Hana Alternative Infra Special Investment Private Trust No.3-1	Purchase of securities	2,085
	Hana Alternative Infra Special Investment Private Trust No.3-2	Purchase of securities	983
	Hana Alternative Infra Special Investment Private Trust No.3-4	Purchase of securities	18,451
	Hana Alternative General Private Real Estate Investment Trust No.180	Purchase of securities	78,402
	Hana Alternative Investment infra general Private Trust No.1	Purchase of securities	30,863
Other related parties	Hana Digital Transformation Fund	Purchase of securities	1,000
	Daegu MBC Site Complex Development PFV	Unused loan commitments in Korean won	43,105
	Hana Innovation Venture Scale-up Fund	Purchase of securities	520
	Gyeonggi Hana Turn around Fund No.2	Purchase of securities	450
	Hana Untact Digital Innovation Fund	Purchase of securities	450
	Hana K-NewDeal Unicorn Fund	Purchase of securities	9,000
	Notic Green Innovation ESG Joint Investment No.1 Private Investment Limited Partnership	Purchase of securities	672
	KDBI Hana Business Reorganization Value Business Private Equity Partnership	Purchase of securities	42,298

(*1) Including transactions with subsidiaries of related companies.

(*2) Including transactions with subsidiaries of the same controlling company.

51-5 Significant payment guarantees and collaterals provided from related parties as of September 30, 2024, and December 31, 2023, are as follows (KRW in millions):

September 30, 2024:

Classification	Entity	Payment guarantees or Collaterals provided	Limit
Associate (*2)	BIDV	Acceptance and guarantees in foreign currencies	31,811
Entities under common control (*3)	Hana Securities Co., Ltd.(*1)	Collateral provided	70,000
		Unsettled arrangements (Currency forward)	1,142,215
	Hana Card Co., Ltd.	Unused loan commitments in Korean won	135,036
		Unsettled arrangements (Currency forward)	207,017
	Hana Capital Co., Ltd.	Collateral provided	471,591
	Hana Life Insurance Co., Ltd.	Collateral provided	15,000
		Unsettled arrangements (Currency forward)	408,286
	Hana F&I Inc	Collateral provided	738,489
	Finnq Co., Ltd.	Collateral provided	50

- (*1) As a swap bank of investment trust to which Hana Securities Co., Ltd. is committed to purchase private bonds, the Group is provided with an obligation for additional investment or supplementation of forward exchange or currency swap of investment trust.
- (*2) Including transactions with subsidiaries of related companies.
- (*3) Including transactions with subsidiaries of the same controlling company.

December 31, 2023:

Classification	Entity	Payment guarantees or Collaterals provided	Limit
Associates (*2)	BIDV	Acceptance and guarantees in foreign currencies	59,120
Entities under common control (*3)	Hana Securities Co., Ltd.(*1)	Collateral provided	70,000
		Unsettled arrangements (Currency forward)	2,550,693
	Hana Card Co., Ltd.	Unused loan commitments in Korean won	138,607
		Unsettled arrangements (Currency forward)	206,857
	Hana Capital Co., Ltd.	Collateral provided	475,557
	Hana Life Insurance Co., Ltd.	Collateral provided	15,000
		Unsettled arrangements (Currency forward)	104,872
	Hana F&I Inc	Collateral provided	790,621
	Hana Insurance Co., Ltd.	Collateral provided	1,870
	Finnq Co., Ltd.	Collateral provided	50

- (*1) As a swap bank of investment trust to which Hana Securities Co., Ltd. is committed to purchase private bonds, the Group is provided with an obligation for additional investment or supplementation of forward exchange or currency swap of investment trust.
- (*2) Including transactions with subsidiaries of related companies.
- (*3) Including transactions with subsidiaries of the same controlling company.

51-6 The amount of intangible assets and others acquired by Hana TI Co., Ltd. for the nine-month periods ended September 30, 2024 and 2023, is ₩5,623 million and ₩2,875 million, respectively.

51-7 The defined benefit plans deposited to the Hana Securities Co., Ltd. as of September 30, 2024, and December 31, 2023, are ₩119,419 million and ₩116,406 million, respectively.

51-8 The amounts of bond, etc., purchased from Hana Securities Co., Ltd. as of September 30, 2024 and 2023, are ₩1,813,896 million and ₩987,797 million, respectively, and sold as of September 30, 2024 and 2023, are ₩408,872 million and ₩102,325 million, respectively.

51-9 Details of compensation for standing directors and executive officers for the nine-month periods ended September 30, 2024 and 2023, are summarized as follows (KRW in millions):

Classification	For the nine-month period ended September 30, 2024		For the nine-month period ended September 30, 2023	
	For the three-month period ended	For the nine-month period ended	For the three-month period ended	For the nine-month period ended
Short-term employee payment	3,988	13,080	3,877	12,595
Retirement benefit	675	775	42	246
Share-based payment	1,015	5,389	945	2,812

Independent Auditor's Report

(English Translation of Independent Auditor's Report

Originally Issued in Korean on February 29, 2024)

To the Shareholders and Board of Directors of

Hana Bank Co., Ltd. and its Subsidiaries:

Report on the Audited Consolidated Financial Statements

Audit Opinion

We have reviewed the accompanying consolidated financial statements of Hana Bank Co., Ltd. (the "Bank") and its subsidiaries (collectively, the "Group"), which comprise the consolidated statements of financial position as of December 31, 2023 and 2022, respectively, and the related consolidated statements of profit or loss and comprehensive income, consolidated statements of changes in equity and consolidated statements of cash flows for the years ended December 31, 2023 and 2022, respectively, and notes to the consolidated financial statements including a summary of material accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of the Group as of December 31, 2023 and 2022, respectively, and its financial performance and its cash flows for the years ended December 31, 2023 and 2022, respectively, in accordance with Korean International Financial Reporting Standards ("K-IFRSs").

Basis for Audit opinion

We conducted our audits in accordance with Korean Standards on Auditing ("KSA"). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audits of the consolidated financial statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and presentation of these consolidated financial statements in accordance with K-IFRSs, and for such internal control as management determines is necessary to enable the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern; disclosing, as applicable, matters related to going concern and using the going concern; basis of accounting, unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative, but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's responsibility for the Audit of Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with KSAs we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error; design and perform audit procedures responsive to those risks; and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Bank to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Deloitte Idnjin LLC

February 29, 2024

This audit report is effective as of February 29, 2024, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the date of the independent auditor's report to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

Consolidated Statements of Financial Position

As of December 31, 2023 and 2022

Hana Bank Co., Ltd. and its subsidiaries

(Korean won in millions)

Accounts	December 31, 2023		December 31, 2022	
Assets				
1. Cash and due from banks (Notes 4, 5, 6, 8, 10 and 50)	30,564,279		41,087,857	
2. Financial assets at FVTPL (Notes 4, 5, 6, 7, 8, 11, 14 and 16)	17,514,876		18,455,415	
3. Derivative assets used for hedging (Notes 4, 5, 6, 7, 8 and 16)	1,723		8,062	
4. Financial assets at FVOCI (Notes 4, 5, 6, 7, 8, 12 and 14)	36,894,111		32,960,581	
5. Securities at amortized cost (Notes 4, 5, 6, 7, 8, 13 and 14)	36,337,949		37,583,487	
6. Loans (Notes 4, 5, 6, 7, 8 and 15)	347,246,910		330,186,341	
7. Investments in associates and a joint venture (Note 17)	3,280,152		2,958,288	
8. Property, plant and equipment (Notes 9 and 18)	2,415,210		2,426,014	
9. Investment properties (Notes 9 and 19)	675,523		664,942	
10. Intangible assets (Notes 9 and 20)	428,880		386,107	
11. Net defined benefit assets (Note 27)	–		77,160	
12. Current tax assets	37,770		24,733	
13. Deferred tax assets (Note 47)	133,742		316,018	
14. Other assets (Notes 4, 5, 6, 7, 8 and 22)	18,634,009		13,505,955	
15. Merchant banking account assets (Notes 4, 5, 6, 8 and 22)	4,637,824		4,631,361	
16. Non-current assets held for sale (Note 21)	40,478		36,423	
Total assets		498,843,436		485,308,744
Liabilities				
1. Deposits (Notes 4, 5, 6, 8 and 23)	369,749,453		359,858,481	
2. Financial liabilities at FVTPL (Notes 4, 5, 6, 7, 8, 16 and 24)	6,729,210		11,228,307	
3. Derivative liabilities used for hedging (Notes 4, 5, 6, 7, 8 and 16)	390,979		516,418	
4. Borrowings (Notes 4, 5, 6, 7, 8, 25 and 50)	22,033,914		22,256,597	
5. Debentures (Notes 4, 5, 6, 8, 26 and 50)	26,542,179		26,233,339	
6. Net defined benefit liabilities (Note 27)	173,575		9,106	
7. Provisions (Note 28)	760,573		564,978	
8. Current tax liabilities	165,398		726,579	
9. Deferred tax liabilities (Note 47)	253,200		2,259	
10. Other liabilities (Notes 4, 5, 6, 7, 8, 29 and 50)	35,805,942		30,280,039	
11. Merchant banking account liabilities (Notes 4, 5, 6, 8 and 29)	4,154,697		3,667,273	
Total liabilities		466,759,120		455,343,376
Equity				
Equity attributable to owners of the parent		31,782,740		29,685,969
1. Capital stock (Note 30)	5,359,578		5,359,578	
2. Capital surplus (Note 30)	6,161,303		6,159,820	
3. Hybrid equity securities (Note 30)	353,738		533,475	

Accounts	December 31, 2023		December 31, 2022	
4. Capital adjustments (Note 30)	(37,921)		(37,686)	
5. Retained earnings (Note 32)	21,050,087		19,236,315	
(Regulatory reserve for credit loss :				
December 31, 2023: ₩2,690,108 million				
December 31, 2022: ₩2,714,034 million				
Regulatory reserve for credit loss to reversed :				
December 31, 2023: ₩112,706 million				
December 31, 2022: ₩23,926 million				
Planned reversal of regulatory reserve for credit loss :				
December 31, 2023: ₩112,706 million				
December 31, 2022: ₩23,926 million) (Note 33)				
6. Accumulated other comprehensive loss (Note 31)	(1,104,045)		(1,565,533)	
Non-controlling interests		301,576		279,399
Total equity		32,084,316		29,965,368
Total liabilities and equity		498,843,436		485,308,744

See notes to consolidated financial statements.

Consolidated Statements of Profit or Loss and Other Comprehensive Income

For the years ended December 31, 2023 and 2022

Hana Bank Co., Ltd. and its subsidiaries

(Korean won in millions)

Accounts	2023		2022	
I. Net interest income (Notes 9, 34 and 35)		7,917,411		7,608,677
1. Interest income	19,793,063		13,347,231	
Interest income on financial instruments at FVOCI and AC	19,617,392		13,282,377	
Interest income on financial instruments at FVTPL	175,671		64,854	
2. Interest expenses	(11,875,652)		(5,738,554)	
II. Net fee and commission income (Notes 9, 34 and 36)		661,464		593,612
1. Fee and commission income	931,532		874,721	
2. Fee and commission expenses	(270,068)		(281,109)	
III. Net gain on financial instruments at FVTPL (Notes 16, 34 and 37)		491,748		124,701
IV. Net gain (loss) on derivative financial instruments used for hedging (Notes 34 and 38)		26,336		(63,551)
V. Net gain on financial instruments at FVOCI (Notes 34 and 39)		84,433		2,162
VI. Net gain on financial instruments at AC (Notes 13, 34 and 40)		232		4
VII. Provision for allowance for credit loss (Notes 34 and 41)		(658,307)		(657,649)
VIII. General and administrative expenses (Notes 9, 34 and 42)		(3,448,610)		(3,318,831)
IX. Other operating income (Notes 34 and 43)		7,934,269		7,615,689
X. Other operating expenses (Notes 34 and 44)		(8,403,458)		(7,838,212)
XI. Operating income		4,605,518		4,066,602
XII. Net non-operating income		7,565		104,884
1. Non-operating income (Notes 9, 17 and 45)	222,566		267,293	
Gain from using equity method	179,345		221,832	
Other income	43,221		45,461	
2. Non-operating expenses (Notes 9, 17 and 46)	(215,001)		(162,409)	
Loss from using equity method	(11,232)		(32,819)	
Other expenses	(203,769)		(129,590)	
XIII. Income before income tax expenses		4,613,083		4,171,486
XIV. Income tax expenses (Notes 9 and 47)		(1,125,650)		(1,059,787)
XV. Net income for the year		3,487,433		3,111,699
1. Owners of the parent (Adjusted income after regulatory reserve for credit loss in the amount of 2023: ₩3,589,342 million 2022: ₩3,119,771 million) (Note 33)		3,476,636		3,095,845
2. Non-controlling interests		10,797		15,854
XVI. Other comprehensive income (loss) (Note 31)		521,365		(663,519)
Items that may be reclassified subsequently to profit or loss:	610,797		(600,406)	
1. Gain (loss) on valuation of debt securities at FVOCI (Note 50)	570,926		(578,842)	

Accounts	2023		2022	
2. Gain (loss) on translation of foreign operations (Note 50)	70,733		(2,710)	
3. Changes in equity on investments in associates (Note 50)	(8,766)		1,675	
4. Loss on valuation of net investment hedges of foreign operations (Note 16)	(22,096)		(20,529)	
Items that will not be reclassified subsequently to profit or loss:	(89,432)		(63,113)	
1. Remeasurement of defined benefit plans	(148,717)		6,395	
2. Gain (loss) on valuation of equity securities at FVOCI (Note 50)	59,086		(57,920)	
3. Changes in equity on investments in associates (Note 50)	199		273	
4. Loss on valuation of fair value hedges	–		(11,861)	
XVII. Total comprehensive income for the year		4,008,798		2,448,180
1. Owners of the parent	3,989,094		2,443,568	
2. Non-controlling interests	19,704		4,612	
XVIII. Earnings per share (Note 48) (Korean won)				
1. Basic earnings per share		3,221		2,866
2. Diluted earnings per share		3,221		2,866

See notes to consolidated financial statements.

Consolidated Statements of Changes in Equity

For the years ended December 31, 2023 and 2022

Hana Bank Co., Ltd. and its subsidiaries

(Korean won in millions)

Accounts	Capital stock	Capital surplus	Hybrid equity securities	Capital adjustments	Retained earnings	Accumulated other comprehensive gain (loss)	Equity attributable to equity holder of the parent	Non-controlling interests	Total
I. As of January 1, 2022	5,359,578	9,653,888	533,475	(38,279)	13,897,317	(915,977)	28,489,982	266,489	28,756,471
Dividends	-	-	-	-	(660,400)	-	(660,400)	-	(660,400)
Interim dividends	-	-	-	-	(570,000)	-	(570,000)	-	(570,000)
Dividends on hybrid equity securities	-	-	-	-	(23,770)	-	(23,770)	-	(23,770)
Stock option	-	-	-	15	-	-	15	-	15
Reduction in capital surplus	-	(3,500,000)	-	-	3,500,000	-	-	-	-
Paid-in capital increases of subsidiaries	-	5,952	-	-	-	44	5,996	8,298	14,294
Reclassification of valuation gain or loss on equity securities at FVOCI upon derecognition	-	-	-	-	(2,677)	2,677	-	-	-
Others	-	-	-	578	-	-	578	-	578
Subtotal	5,359,578	6,159,820	533,475	(37,686)	16,140,470	(913,256)	27,242,401	274,787	27,517,188
Net income for the year	-	-	-	-	3,095,845	-	3,095,845	15,854	3,111,699
Loss on valuation of debt securities at FVOCI	-	-	-	-	-	(575,486)	(575,486)	(3,356)	(578,842)
Loss on valuation of equity securities at FVOCI	-	-	-	-	-	(57,920)	(57,920)	-	(57,920)
Gain (loss) on translation of foreign operations	-	-	-	-	-	5,158	5,158	(7,888)	(2,710)
Loss on valuation of net investment hedges of foreign operations	-	-	-	-	-	(20,529)	(20,529)	-	(20,529)
Loss on valuation of fair value hedges	-	-	-	-	-	(11,861)	(11,861)	-	(11,861)
Remeasurement of defined benefit plans	-	-	-	-	-	6,413	6,413	(18)	6,395
Changes in equity on investments in associates	-	-	-	-	-	1,948	1,948	-	1,948
Total comprehensive income for the year	-	-	-	-	3,095,845	(652,277)	2,443,568	4,612	2,448,180
II. As of December 31, 2022	5,359,578	6,159,820	533,475	(37,686)	19,236,315	(1,565,533)	29,685,969	279,399	29,965,368

Accounts	Capital stock	Capital surplus	Hybrid equity securities	Capital adjustments	Retained earnings	Accumulated other comprehensive gain (loss)	Equity attributable to equity holder of the parent	Non-controlling interests	Total
I. As of January 1, 2023	5,359,578	6,159,820	533,475	(37,686)	19,236,315	(1,565,533)	29,685,969	279,399	29,965,368
Dividends	-	-	-	-	(880,000)	-	(880,000)	-	(880,000)
Interim dividends	-	-	-	-	(810,000)	-	(810,000)	-	(810,000)
Dividends on hybrid equity securities	-	-	-	-	(23,834)	-	(23,834)	-	(23,834)
Redemption of hybrid equity securities	-	-	(179,737)	(263)	-	-	(180,000)	-	(180,000)
Stock option	-	-	-	(14)	-	-	(14)	(3)	(17)
Paid-in capital increases of subsidiaries	-	1,483	-	-	-	-	1,483	2,476	3,959
Reclassification of valuation gain or loss on equity securities at FVOCI upon derecognition	-	-	-	-	50,970	(50,970)	-	-	-
Other capital adjustment	-	-	-	42	-	-	42	-	42
Subtotal	5,359,578	6,161,303	353,738	(37,921)	17,573,451	(1,616,503)	27,793,646	281,872	28,075,518
Net income for the year	-	-	-	-	3,476,636	-	3,476,636	10,797	3,487,433
Gain on valuation of debt securities at FVOCI	-	-	-	-	-	570,812	570,812	114	570,926
Gain on valuation of equity securities at FVOCI	-	-	-	-	-	59,086	59,086	-	59,086
Gain on translation of foreign operations	-	-	-	-	-	62,053	62,053	8,680	70,733
Loss on valuation of net investment hedges of foreign operations	-	-	-	-	-	(22,096)	(22,096)	-	(22,096)
Remeasurement of defined benefit plans	-	-	-	-	-	(148,830)	(148,830)	113	(148,717)
Changes in equity on investments in associates	-	-	-	-	-	(8,567)	(8,567)	-	(8,567)
Total comprehensive income for the year	-	-	-	-	3,476,636	512,458	3,989,094	19,704	4,008,798
II. As of December 31, 2023	5,359,578	6,161,303	353,738	(37,921)	21,050,087	(1,104,045)	31,782,740	301,576	32,084,316

See notes to consolidated financial statements.

Consolidated Statements of Cash Flows

For the years ended December 31, 2023 and 2022

Hana Bank Co., Ltd. and its subsidiaries

(Korean won in millions)

Accounts	2023	2022
I. Net cash provided by (used in) operating activities	(4,228,757)	27,162,831
1. Net income for the year	3,487,433	3,111,699
2. Adjustments to income and expenses:	(6,803,290)	(6,559,688)
Income tax expenses	1,125,650	1,059,787
Interest expenses	11,875,652	5,738,554
Interest income	(19,793,063)	(13,347,231)
Dividend income	(11,529)	(10,798)
3. Adjustments to non-cash items:	194,060	2,142,309
Loss (gain) on valuation of financial instruments at FVTPL	(1,024,232)	957,084
Loss (gain) on disposal of financial instruments at FVTPL	(49,134)	17,774
Loss (gain) on valuation of derivative instruments used for hedging	(19,051)	77,479
Gain on disposal of financial instruments at FVOCI	(84,433)	(2,162)
Provision for (reversal of) credit loss allowance on financial assets measured at FVOCI	867	(603)
Gain on disposal of financial instruments at amortized cost	(232)	(4)
Provision for (reversal of) allowance for financial instruments at amortized cost	(36,277)	66,966
Net allowance for loans and other assets	693,717	591,286
Gain on disposal of investments in associates and a joint venture	(652)	(2,315)
Impairment loss on investments in associates and a joint venture	1,395	520
Gain on equity method	(168,113)	(189,013)
Depreciation and amortization	531,763	465,049
Gain on disposal of property and equipment and intangible assets	(1,095)	(11,923)
Impairment loss on property and equipment and intangible assets	10	232
Loss on termination of right-of-use assets	230	360
Loss on disposal of right-of-use assets	—	670
Retirement benefits	126,643	144,346
Share-based payment expenses	7,287	10,797
Net provisions transferred in	250,501	85,264
Gain on foreign currency translation	(19,046)	(68,484)
Others	(16,088)	(1,014)
4. Changes in operating assets and liabilities:	(9,141,180)	20,866,397
Financial assets at FVTPL (items held for trading)	1,956,560	(7,437,089)
Loans	(11,036,429)	(15,917,597)
Net defined benefit assets	—	(77,160)
Other assets	(3,540,411)	1,152,513
Merchant banking account assets	(6,695)	111,591
Deposits	4,662,660	34,242,815
Financial liabilities at FVTPL	(4,318,787)	6,588,007
Net defined benefit liabilities	(87,455)	(303,480)
Provisions	(55,179)	(39,253)
Other liabilities	2,804,295	1,786,326

Accounts	2023		2022	
Merchant banking account liabilities	487,424		758,993	
Derivative assets used for hedging	(7,163)		731	
5. Cash provided by operating activities:	19,595,603		12,958,964	
Interest received	19,559,546		12,935,766	
Dividend received	36,057		23,198	
6. Cash used in operating activities:	(11,561,383)		(5,356,850)	
Interest paid	(10,135,618)		(4,391,698)	
Income tax paid	(1,425,765)		(965,152)	
II. Net cash used in investing activities		(2,506,107)		(14,765,081)
1. Increase in financial assets at FVTPL (other than items held for trading)	(7,339,054)		(6,985,446)	
2. Decrease in financial assets at FVTPL (other than items held for trading)	7,207,280		6,213,194	
3. Increase in financial assets at FVOCI	(19,188,176)		(10,734,129)	
4. Decrease in financial assets at FVOCI	15,885,655		12,359,959	
5. Increase in securities at amortized cost	(1,208,227)		(16,705,097)	
6. Decrease in securities at amortized cost	2,719,852		1,664,805	
7. Increase in investments in associates and a joint venture	(203,174)		(159,719)	
8. Decrease in investments in associates and a joint venture	17,535		11,664	
9. Acquisition of property and equipment	(241,763)		(375,988)	
10. Disposal of property and equipment	2,643		25,559	
11. Disposal of investment properties	2,550		19,997	
12. Acquisition of intangible assets	(174,549)		(151,556)	
13. Disposal of intangible assets	686		15	
14. Receipt of government grants	—		1,536	
15. Disposal of non-current assets held for sale	16,552		9,275	
16. Others	(3,917)		40,850	
III. Net cash provided by (used in) financing activities		(3,266,493)		1,022,872
1. Net cash flows of derivative instruments used for hedging	13,433		—	
2. Net increase (decrease) in borrowings	(1,339,106)		3,926,509	
3. Issuance of debentures	14,722,290		10,945,334	
4. Redemption of debentures	(14,572,250)		(12,410,394)	
5. Dividends paid	(1,690,000)		(1,230,400)	
6. Redemption of hybrid equity securities	(180,000)		—	
7. Dividends on hybrid equity securities	(23,834)		(23,770)	
8. Redemption of lease liabilities	(201,285)		(199,280)	
9. Change in equity ownership of subsidiaries	4,259		14,873	
IV. Net increase (decrease) in cash and cash equivalents (I+ II+ III)		(10,001,357)		13,420,622
V. Cash and cash equivalents at the beginning of the year		38,500,426		25,478,635
VI. Effect of changes in exchange rate on cash and cash equivalents		(216,766)		(398,831)
VII. Cash and cash equivalents at the end of the year (Note 50)		28,282,303		38,500,426

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

As of and for the years ended December 31, 2023 and 2022

Hana Bank Co., Ltd. and its subsidiaries

1. General information

General information on Hana Bank Co., Ltd., previously Korea Exchange Bank (the "Bank" or the "Parent company") and its subsidiaries (collectively, the "Group") in accordance with Korean International Financial Reporting Standard ("K-IFRS") 1110, *Consolidated Financial Statements*, is as follows:

1-1 Summary of the Parent company (The Bank)

The Bank was established on January 30, 1967, as a government-controlled bank, to engage in foreign exchange and trade finance business under the *Korea Exchange Bank Act* enacted on July 28, 1966.

On December 30, 1989, the *Korea Exchange Bank Act* was repealed, and the Bank was reorganized as a stock company under the Commercial Act of the Republic of Korea. On April 4, 1994, the Bank was listed on the Korea Exchange (previously, Korea Stock Exchange). On February 28, 2004, the Bank merged its subsidiary, Korea Exchange Bank Credit Service Co., Ltd. On August 31, 2014, the Bank spun off its credit card division.

On February 9, 2012, Hana Financial Group Inc. ("HFG") had control over the Bank by acquiring 52.27% equity interest in the Bank and later on April 5, 2013, the Bank became a wholly owned subsidiary of HFG after HFG acquired the remaining interest in the Bank through an all-inclusive exchange of the shares.

The Bank changed to its current name on September 1, 2015, following the merger of Korea Exchange Bank and Hana Bank.

The Bank provides commercial banking service under the Banking Act of the Republic of Korea, trust banking service under the Financial Investment Services And Capital Markets Act, merchant banking service due to the merger with the Korea International Merchant Bank, foreign exchange business and other related businesses. As of December 31, 2023, the Bank's headquarters is located at Seoul, with 597 domestic branches (including 64 satellite offices) and 24 overseas branches (including one satellite office and four offices).

The Bank is authorized to issue 2,000 million shares (par value amount : ₩5,000) of common stock, and as of December 31, 2023, after a number of capital increases and decreases, stock splits and conversion of preferred shares to common shares, the Bank has 1,071,915,717 shares of common stock issued and outstanding with the total capital stock amounting to ₩5,359,578 million.

The consolidated financial statements of the Group as of and for the year ended December 31, 2023, were approved by the Board of Directors on January 30, 2024, and will be approved finally at the shareholders' meeting to be held on March 20, 2024.

1-2 Scope and overview of consolidation

The Group's ownership percentages in its consolidated subsidiaries as of December 31, 2023, are summarized as follows (ownership in %):

Investee	Country	Major business	Share ratio (%)	Reporting date
Subsidiaries of Hana Bank				
Hana Bank (China) Co., Ltd.	China	Financial business	100.00	2023.12.31
KEB Hana Bank Canada	Canada	Financial business	100.00	2023.12.31
KEB Hana Bank (Deutschland) A.G. (KEBDAG)	Germany	Financial business	100.00	2023.12.31
PT Bank KEB Hana (KEBI)	Indonesia	Financial business	69.01	2023.12.31
Banco KEB Hana Do Brasil S.A. (KEBB)	Brazil	Financial business	100.00	2023.12.31
KEB Hana NY Financial Corp. (NYFinCo)	USA	Financial business	100.00	2023.12.31
KEB Hana LA Financial Corp. (LAFinCo)	USA	Financial business	100.00	2023.12.31
KEB Hana Global Finance Limited (KHGF)	Hong Kong	Financial business	100.00	2023.12.31
KEB Hana Bank Russia	Russia	Financial business	99.99	2023.12.31

Investee	Country	Major business	Share ratio (%)	Reporting date
Hana Bancorp, Inc.	USA	Financial business	96.77	2023.12.31
KEB Hana Bank Mexico	Mexico	Financial business	99.99	2023.12.31
GLN international Co., Ltd.	Korea	Other financial business	82.24	2023.12.31
Hana Tech Value-Up Investment Fund (*)	Korea	Other financial business	98.04	2023.12.31
Hana 1Q Startup Investment Fund (*)	Korea	Other financial business	90.91	2023.12.31
Hana UBS Power PEF Invest Trust 21 [Bond] (*)	Korea	Asset management company	100.00	2023.12.31
Hyundai Trust PEF Invest 16 [Bond] (*)	Korea	Asset management company	100.00	2023.12.31
Kyobo AXA Tomorrow PEF Invest Trust KH-1 [Bond] (*)	Korea	Asset management company	100.00	2023.12.31
Sevenstar Co., Ltd. (*)	Korea	Other financial business	-	2023.12.31
Marine Solution Co., Ltd. (*)	Korea	Other financial business	-	2023.12.31
Joong-ang star Co., Ltd. (*)	Korea	Other financial business	-	2023.12.31
Ocean Betts The First Co., Ltd. (*)	Korea	Other financial business	-	2023.12.31
Hana H in the holdings 1st LLC (*)	Korea	Other financial business	-	2023.12.31
H-Plus 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
Hana OK 1st Co., Ltd. (*)	Korea	Other financial business	-	2023.12.31
Hana H in the holdings 2nd LLC (*)	Korea	Other financial business	-	2023.12.31
HEONEQ1st, LLC (*)	Korea	Other financial business	-	2023.12.31
H-Hotel1Q 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
BBQ 1Q 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
SK Office 1Q 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
Cleanenergy 1Q 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
HANA DL First Co., Ltd. (*)	Korea	Other financial business	-	2023.12.31
HANA TERMINUS First Co., Ltd. (*)	Korea	Other financial business	-	2023.12.31
HANA I.S 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
HANA I.G 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
GRAND ONEQ 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
DONG DAEGU TERMINAL 2nd, LLC (*)	Korea	Other financial business	-	2023.12.31
KENDALL NO.9 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
BYK 3rd Co., Ltd. (*)	Korea	Other financial business	-	2023.12.31
Mini Hana 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
Jinwoori 1Q 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
H-ECHO 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
HANA STARLORD 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
CLEAN WORLD 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
H-HANA 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
HANA ANANTI 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
One Q B777F 66872 Co., Ltd. (*)	Cayman Islands	Other financial business	-	2023.12.31
NAE CHON HANA 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
DRAGON HANA 1st, LLC (*)	Korea	Other financial business	-	2023.12.31
HANA BAEKSA LOGISTICS 1st, LLC (*)	Korea	Other financial business	-	2023.12.31

Investee	Country	Major business	Share ratio (%)	Reporting date
HANA S ONE Q 1st, LLC (*)	Korea	Other financial business	–	2023.12.31
HOME PLUS HANA CONNECT, LLC (*)	Korea	Other financial business	–	2023.12.31
Antarctica 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Enerbility Hana 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Hana Plant 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
GS Hana 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Cha Cha Hana 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
T A 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Neostar 6th, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Galaxia 1Q 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Antarctica 2nd, Ltd. (*)	Korea	Other financial business	–	2023.12.31
HCONEQ 2nd, LLC (*)	Korea	Other financial business	–	2023.12.31
H Advanced 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Hana Display 2nd, LLC (*)	Korea	Other financial business	–	2023.12.31
Doosan Hana 1st, LLC (*)	Korea	Other financial business	–	2023.12.31
H Seven 1st, LLC (*)	Korea	Other financial business	–	2023.12.31
Hana Privia 1st, LLC (*)	Korea	Other financial business	–	2023.12.31
Hana Plant 2nd, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Hana Plant 3rd, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Hana Supreme 1st, LLC (*)	Korea	Other financial business	–	2023.12.31
Hana H in the holdings 3rd LLC (*)	Korea	Other financial business	–	2023.12.31
Netoneq 2nd, LLC (*)	Korea	Other financial business	–	2023.12.31
Exteer Hana 1st, LLC (*)	Korea	Other financial business	–	2023.12.31
Hana Spark 1st, LLC (*)	Korea	Other financial business	–	2023.12.31
H Seven 2nd, LLC (*)	Korea	Other financial business	–	2023.12.31
Antarctica 3rd, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Daehan Hana 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
GS Hana 2nd, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Happy World Hana 1st, Ltd. (*)	Korea	Other financial business	–	2023.12.31
Trust accounts guaranteeing the repayment of principal (*)	Korea	Trust account	–	2023.12.31
Subsidiaries of Hana Bancorp, Inc.				
KEB Hana Bank USA	USA	Bank	100.00	2023.12.31

(*) Although the entity is a structured special-purpose-company (SPC), the Group recognized the entity as a subsidiary considering its exposure to variable returns and ability to direct its activities.

Condensed financial statements as of December 31, 2023 and 2022, are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)
Hana Bank (China) Co., Ltd.	10,150,671	9,030,295	1,120,376	531,511	4,893	7,677
KEB Hana Bank Canada	1,804,745	1,533,228	271,517	113,485	15,766	26,177
KEB Hana Bank (Deutschland) A.G.	1,212,141	995,228	216,913	83,193	9,904	20,112
PT Bank KEB Hana	3,977,538	3,048,892	928,646	335,991	38,099	66,626
Banco KEB Hana Do Brasil S.A.	285,110	236,975	48,135	38,601	3,355	7,786
KEB Hana NY Financial Corp.	474,249	398,377	75,872	25,382	2,296	3,529
KEB Hana LA Financial Corp.	808,015	706,431	101,584	50,314	8,798	10,278
KEB Hana Global Finance Limited	251,134	148,513	102,621	19,636	6,279	8,071
KEB Hana Bank Russia	837,148	741,873	95,275	63,203	15,476	(2,039)
Hana Bancorp, Inc.(*)	554,578	425,162	129,416	26,967	4,561	6,772
KEB Hana Bank Mexico	365,050	238,516	126,534	29,448	3,429	21,054
GLN International Co., Ltd.	60,616	7,163	53,453	964	(6,661)	(6,661)
Trust accounts guaranteeing the repayment of principal	1,564,740	1,528,439	36,301	107,112	14,925	14,925

(*) The amounts are consolidated amounts of the intermediate parent.

◁December 31, 2022▷

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)
Hana Bank (China) Co., Ltd.	10,666,735	9,554,035	1,112,700	526,554	(97,191)	(124,308)
KEB Hana Bank Canada	1,788,935	1,543,596	245,339	76,573	16,039	16,303
KEB Hana Bank (Deutschland) A.G.	1,157,221	1,028,804	128,417	44,421	8,627	9,374
PT Bank KEB Hana	3,841,423	2,979,403	862,020	316,465	51,563	15,327
Banco KEB Hana Do Brasil S.A.	208,558	168,209	40,349	25,795	2,791	6,908
KEB Hana NY Financial Corp.	368,894	296,550	72,344	10,870	980	5,569
KEB Hana LA Financial Corp.	682,091	590,785	91,306	24,511	6,441	11,807
KEB Hana Global Finance Limited	215,235	120,686	94,549	12,119	4,574	10,023
KEB Hana Bank Russia	1,208,118	1,110,804	97,314	67,425	13,862	20,559
Hana Bancorp, Inc.(*)	488,768	366,125	122,643	15,125	(940)	151
KEB Hana Bank Mexico	356,088	250,609	105,479	16,271	346	12,139
GLN International Co., Ltd.	57,439	1,267	56,172	257	(6,132)	(6,132)
Trust accounts guaranteeing the repayment of principal	1,579,252	1,557,875	21,377	39,811	(24,356)	(24,356)

(*) The amounts are consolidated amounts of the intermediate parent.

The following entities are excluded from the Group's scope of consolidation as of December 31, 2023 and 2022, since the Group aimed at investing in majority-owned companies or securities and has no control over the power of investee-related activities, exposure to variable profits and the ability to use power to influence the Group's variable profits.

<December 31, 2023>

Company name	Country	Major business	Share ratio (%)
Hana – KMC Unicom Fund of Funds	Korea	Investment	90.91
All Together Korea Fund 5	Korea	Investment	100.00
Hana-New Deal K-Growth fund	Korea	Investment	90.00
Defense Technology Innovation Private Investment Trust	Korea	Investment	98.33
Hana Prop-Tech Fund No.1	Korea	Investment	88.24

<December 31, 2022>

Company name	Country	Major business	Share ratio (%)
Hana – KMC Unicom Fund of Funds	Korea	Investment	90.91
All Together Korea Fund 5	Korea	Investment	100.00
Hana-New Deal K-Growth fund	Korea	Investment	90.00
Defense Technology Innovation Private Investment Trust	Korea	Investment	98.33

Subsidiaries included in and excluded from the consolidation scope for the year ended December 31, 2023, are as follows:

Company	Reasons
Included in scope of consolidation:	
Subsidiaries of Hana Bank	
Antarctica 2nd, Ltd.	Newly invested
HCONEQ 2nd, LLC	Newly invested
H Advanced 1st, LLC	Newly invested
Hana Display 2nd, LLC	Newly invested
Doosan Hana 1st, LLC	Newly invested
H Seven 1st, LLC	Newly invested
Hana Privia 1st, LLC	Newly invested
Hana Plant 2nd, Ltd.	Newly invested
Hana Plant 3rd, Ltd.	Newly invested
Hana Supreme 1st, LLC	Newly invested
Hana H in the holdings 3rd LLC	Newly invested
Netoneq 2nd, LLC	Newly invested
Exteer Hana 1st, LLC	Newly invested
Hana Spark 1st, LLC	Newly invested
H Seven 2nd, LLC	Newly invested
Antarctica 3rd, Ltd.	Newly invested
Daehan Hana 1st, Ltd.	Newly invested
GS Hana 2nd, Ltd.	Newly invested
Happy World Hana 1st, Ltd.	Newly invested
Excluded from the scope of consolidation:	
Subsidiaries of Hana Bank	
Hana Display 1st Co., Ltd.	Excluded due to the disposal (end of credit offering)
HCONEQ 1st, LLC	Excluded due to the disposal (end of credit offering)
PIOTOWER 1st, LLC	Excluded due to the disposal (end of credit offering)
THE HAM ONEQ 1st, LLC	Excluded due to the disposal (end of credit offering)
Hana Double H 1Q 4th Co., Ltd.	Excluded due to the disposal (end of credit offering)
Hana Double H 1Q 5th Co., Ltd.	Excluded due to the disposal (end of credit offering)
DPS 2nd, LLC	Excluded due to the disposal (end of credit offering)
HANA BAY 1st, LLC	Excluded due to the disposal (end of credit offering)
THE MIRAE ONEQ 1st, LLC	Excluded due to the disposal (end of credit offering)

1-2-1 Hana Bank (China) Co., Ltd. (Hana Bank China)

Hana Bank (China) Co., Ltd. (Hana Bank China) was incorporated in Beijing to engage in commercial banking, foreign currency exchanges and other related operations in China on December 14, 2007. The Bank contributed the assets and liabilities of the branches in Shanghai and Shenyang, and its interests in the International Bank of Qingdao, which is the subsidiary of the Bank, to the Hana Bank China in the form of equity contributions on December 24, 2007. Hana Bank China, one of subsidiaries in China, acquired and merged with KEB China, one of affiliates in the HFG, on December 15, 2014. (Before the merger, equity interests in Hana Bank China were 59.7% for Hana Bank and 40.3% for Korea Exchange Bank). Its paid-in capital is 3.35 billion yuan as of December 31, 2023 (Share ratio : 100%).

1-2-2 KEB Hana Bank Canada

KEB Hana Bank Canada was established in Toronto, Canada, on October 6, 1981, to provide financial services to Korean companies and residents in Toronto and the surrounding area. Its paid-in capital is 83,400 thousand Canadian dollars as of December 31, 2023 (Share ratio : 100%).

1-2-3 KEB Hana Bank (Deutschland) A.G. (KEBDAG)

KEBDAG was established in Frankfurt, Germany, on December 29, 1992, to provide financial services to Korean companies and residents in Frankfurt and the surrounding area. Paid-in capital is increased by issuing new shares by KEBDAG in 2023. Its paid-in capital is 73,008 thousand euro as of December 31, 2023 (Share ratio : 100%).

1-2-4 PT Bank KEB Hana

PT Bank KEB Hana was established in Jakarta, Indonesia, on November 5, 1990, to provide financial services to Korean companies and residents in Jakarta. In accordance with the regulations of the Bank Indonesia, two or more local banks with the same ultimate parent company are prohibited to operate as an independent entity in Indonesia. Accordingly, PT Bank KEB Indonesia, a subsidiary of the Bank, and PT Bank Hana, a subsidiary of Hana Bank, have completed a merger process on February 20, 2014, and changed the name to PT Bank KEB Hana. PT Bank KEB Hana was incorporated into a subsidiary of KEB on February 28, 2014, since KEB owned the major shares of PT Bank KEB Hana after the acquisition. Its paid-in capital is 3,160,093 million rupiah as of December 31, 2023 (Share ratio : 69.01%).

1-2-5 Banco KEB Hana Do Brasil S.A. (KEBB)

KEBB was incorporated on May 21, 1999, to provide investment finance services for foreign clients, advisory services for domestic companies that seek to invest overseas, finance arrangement and security investment trust services. Its paid-in capital is 126,351 thousand reals as of December 31, 2023 (Share ratio : 100%).

1-2-6 KEB Hana NY Financial Corp. (NYFinCo)

NYFinCo was established in New York, USA, on April 8, 2004, to provide financial services to Korean companies and residents in New York and the surrounding area. Its paid-in capital is 1 dollar as of December 31, 2023 (Share ratio : 100%).

1-2-7 KEB Hana LA Financial Corp. (LAFinCo)

LAFinCo was established in Los Angeles, USA, on April 8, 2004, to provide financial services to Korean companies and residents in Los Angeles and the surrounding area. Its paid-in capital is 2 dollars as of December 31, 2023 (Share ratio :100%).

1-2-8 KEB Hana Global Finance Limited (KHGF)

KHGF was established on July 2, 2009, in Hong Kong to provide investment finance services for foreign clients, advisory services for domestic companies that seek to invest overseas, finance arrangement and security investment trust services. Its paid-in capital is 50,000 thousand dollars as of December 31, 2023 (Share ratio : 100%).

1-2-9 KEB Hana Bank Russia

KEB launched a Moscow representative office in 2008 to provide financial information and consulting services for Korean and local companies in Russia. KEB Hana Bank Russia was established on August 15, 2014, after obtaining permission to operate corporation from Russian supervisory authorities in order to expand the business area. Its paid-in capital is 4.78 billion RUB as of December 31, 2023 (Share ratio : 99.99%).

1-2-10 Hana Bancorp, Inc.

Hana Bancorp, Inc. (previously, BNB Financial Services Corporation) was incorporated on April 8, 1988, to engage in the bank and related businesses. HFG acquired ownership of BNB Financial Services Corporation and incorporated Hana Bancorp, Inc. as its subsidiary on August 30, 2013, and changed the name to Hana Bancorp, Inc.. The Bank purchased the securities from HFG on March 28, 2016. Its paid-in capital is 48,596 thousand dollars as of December 31, 2023 (Share ratio : 96.77%).

1-2-11 KEB Hana Bank Mexico

KEB Hana Bank Mexico was established in Mexico City on November 3, 2017, to engage in provision of financial services to Korean companies and local corporations and obtained approval for the commencement of business from the local supervisory agency on January 31, 2019. Its paid-in capital is 1,666,828 thousand Mexican pesos as of December 31, 2023 (Share ratio : 99.99%).

1-2-12 GLN International Co., Ltd.

GLN International Co., Ltd. was established in Korea on July 7, 2021, and primarily engages in the electronic finance business (global payment brokerage, etc.). Paid-in capital is increased by issuing new shares by GLN International Co., Ltd. in 2023. Its paid-in capital is 60.8 billion Korean won as of December 31, 2023 (Share ratio : 82.24%).

1-3 Structured entities

1-3-1 Consolidated structured entities

1-3-1-1 Hana UBS Power PEF Invest Trust 21 and a set of two other private equity investment vehicles

In accordance with K-IFRS 1110, two other private equity investment vehicles and Hana UBS Power PEF Invest Trust 21 were included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-2 Sevenstar Co., Ltd. and 60 other special-purpose entities

In accordance with K-IFRS 1110, 60 SPCs and Sevenstar Co., Ltd. were included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-3 Trust accounts

In accordance with K-IFRS 1110, trust accounts are included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-4 Hana Tech Value-Up Investment Fund and one other fund

In accordance with K-IFRS 1110, Hana Tech Value-Up Investment Fund and one other fund are included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-5 Contractual commitments to consolidated structured entities

The consolidated structured company for the securitization of assets is established for the securitization of loans. The Group is involved in the acquisition of subordinated bonds issued by the consolidated structured company or provide credit for the asset-backed commercial paper ("ABCP") and others, and is exposed to the risk of not being able to recover the acquisition amounts based on the investment performance. Characteristics and intentions of contractual commitments offered by the Group to the consolidated structured entities are as follows:

Company name	The characteristics and purposes	Intention
Development trust and other trusts	The Group offers principal conservation commitment to trust accounts. The Group is required to conserve the deficit amount in case the trust account stands below the principal as a result of the operation.	Credit risk mitigation on financial management of trust account
Ocean Betts The First Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Ocean Betts The First Co., Ltd..	Operating activities
Hana H in the holdings 1st LLC	The Group partially purchased ABCP (purchase commitment of ₩150,000 million) from Hana H in the holdings 1st LLC.	Operating activities
H-Plus 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from H-Plus 1st, LLC.	Operating activities
Hana CK 1st Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩56,400 million) from Hana CK 1st Co., Ltd..	Operating activities
Hana H in the holdings 2nd LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Hana H in the holdings 2nd LLC.	Operating activities

Company name	The characteristics and purposes	Intention
HEONEQ1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HEONEQ 1st, LLC.	Operating activities
H+Hotel1Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩48,000 million) from H+Hotel1Q 1st, LLC.	Operating activities
BBQ 1Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩12,000 million) from BBQ 1Q 1st, LLC.	Operating activities
SK Office 1q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from SK Office 1q 1st, LLC.	Operating activities
Cleanenergy 1Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩58,200 million) from Cleanenergy 1Q 1st, LLC.	Operating activities
HANA DL First Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HANA DL First Co., Ltd..	Operating activities
HANA TERMINUS First Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HANA TERMINUS First Co., Ltd..	Operating activities
HANA I.G 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from HANA I.G 1st, LLC.	Operating activities
GRAND ONEQ 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩40,000 million) from GRAND ONEQ 1st, LLC.	Operating activities
DONG DAEGU TERMINAL 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from DONG DAEGU TERMINAL 2nd, LLC.	Operating activities
KENDALL NO.9 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,300 million) from KENDALL NO.9 1st, LLC.	Operating activities
BYK 3rd Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩11,000 million) from BYK 3rd Co., Ltd..	Operating activities
Mini Hana 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from Mini Hana 1st, LLC.	Operating activities
Jinwoori 1Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from Jinwoori 1Q 1st, LLC.	Operating activities
H+ECHO 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩80,000 million) from H+ECHO 1st, LLC.	Operating activities
HANA STARLORD 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from HANA STARLORD 1st, LLC.	Operating activities
CLEAN WORLD 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩17,500 million) from CLEAN WORLD 1st, LLC.	Operating activities
H+HANA 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩90,000 million) from H+HANA 1st, LLC.	Operating activities
HANA ANANTI 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HANA ANANTI 1st, LLC.	Operating activities
NAE CHON HANA 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩49,600 million) from NAE CHON HANA 1st, LLC.	Operating activities
DRAGON HANA 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from DRAGON HANA 1st, LLC.	Operating activities
HANA BAEKSA LOGISTICS 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩34,600 million) from HANA BAEKSA LOGISTICS 1st, LLC.	Operating activities
HANA S ONE Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from HANA S ONE Q 1st, LLC.	Operating activities
HOME PLUS HANA CONNECT, LLC	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from HOME PLUS HANA CONNECT, LLC.	Operating activities
Antarctica 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from Antarctica 1st, Ltd..	Operating activities
Enerbility Hana 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Enerbility Hana 1st, Ltd..	Operating activities
Hana Plant 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from Hana Plant 1st, Ltd..	Operating activities
	The Group partially purchased ABCP (purchase commitment of ₩60,000 million)	

Company name	The characteristics and purposes	Intention
GS Hana 1st, Ltd.	from Gs Hana 1st, Ltd..	Operating activities
Cha Cha Hana 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from Cha Cha Hana 1st, Ltd..	Operating activities
T A 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩10,000 million) from T A 1st, Ltd..	Operating activities
Neostar 6th, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩16,400 million) from Neostar 6th, Ltd..	Operating activities
Galaxia 1Q 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩11,300 million) from Galaxia 1Q 1st, Ltd..	Operating activities
Antarctica 2nd, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from Antarctica 2nd, Ltd..	Operating activities
HCONEQ 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from HCONEQ 2nd, LLC.	Operating activities
H Advanced 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from H Advanced 1st, LLC.	Operating activities
Hana Display 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩200,000 million) from Hana Display 2nd, LLC.	Operating activities
Doosan Hana 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Doosan Hana 1st, LLC.	Operating activities
H Seven 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from H Seven 1st, LLC.	Operating activities
Hana Privia 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩10,000 million) from Hana Privia 1st, LLC.	Operating activities
Hana Plant 2nd, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Hana Plant 2nd, Ltd..	Operating activities
Hana Supreme 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from Hana Supreme 1st, Ltd..	Operating activities
Hana H in the holdings 3rd LLC	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from Hana H in the holdings 3rd LLC.	Operating activities
Exteer Hana 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Exteer Hana 1st, LLC	Operating activities
Hana Spark 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from Hana Spark 1st, LLC	Operating activities
H Seven 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from H Seven 2nd, LLC	Operating activities
Antarctica 3rd, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Antarctica 3rd, Ltd.	Operating activities
GS Hana 2nd, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from GS Hana 2nd, Ltd.	Operating activities
Happy World Hana 1st, Ltd.	The Group partially purchased ABCP (purchase commitment of ₩120,000 million) from Happy World Hana 1st, Ltd.	Operating activities

1-3-2 Unconsolidated structured entities

1-3-2-1 The nature of the Group's interests in unconsolidated structured entities

Details of the nature of the Group's interests in unconsolidated structured entities as of December 31, 2023 and 2022, are as follows
(Korean won in millions):

Type	Characteristics and purposes	Major method of financing arrangement	Total assets	
			December 31, 2023	December 31, 2022
SPC securitization	Securitization of backed asset	Issuing asset-backed loan/ABCP and others	6,173,286	7,029,016
Real estate finance	Operation for real estate (including social overhead capital) development	Investment and borrowing	130,483,848	114,016,572
Shipping finance and primary market finance	Building or purchasing ships and non-performing loan purchase, and mergers and acquisitions	Investment and borrowing	165,015,514	40,597,660
Investment fund and trust	Managing investment property	Issuing beneficiary certificates	207,687,103	135,837,775

1-3-2-2 Maximum exposure to loss from interests in unconsolidated structured entities (Korean won in millions):

◁December 31, 2023▷

Classification	SPC	Real estate finance	Shipping finance and primary market finance	Investment fund and trust
Assets				
Loans (A)	455,569	4,819,535	2,345,541	1,234,369
Securities (B)	1	81,125	–	13,285,051
Derivatives (C)	7,437	919	20,717	–
Others (D)	1,503	44,227	21,479	–
Liabilities				
Derivative liabilities	20,451	92,227	5,921	–
Provisions	2,516	3,789	1,346	214
Others	46	3	94	–
Carrying amount of net asset	441,497	4,849,787	2,380,376	14,519,206
Maximum exposure to loss	967,920	5,771,137	2,843,725	16,888,885
Financial assets (A+B+C+D)	464,510	4,945,806	2,387,737	14,519,420
Credit and other commitment	503,410	825,331	455,988	2,369,465

◁December 31, 2022▷

Classification	SPC	Real estate finance	Shipping finance and primary market finance	Investment fund and trust
Assets				
Loans (A)	772,224	3,594,661	1,523,953	1,022,347
Securities (B)	1	65,156	–	11,640,474
Derivatives (C)	8,778	6,104	19,536	–
Others (D)	1,430	16,301	8,883	–
Liabilities				
Derivative liabilities	41,255	90,348	6,460	–
Provisions	206	2,365	490	63
Others	17	61	45	–
Carrying amount of net asset	740,955	3,589,448	1,545,377	12,662,758
Maximum exposure to loss	1,077,495	4,508,450	1,906,570	15,013,673
Financial assets (A+B+C+D)	782,433	3,682,222	1,552,372	12,662,821
Credit and other commitment	295,062	826,228	354,198	2,350,852

2. Basis of preparation and material accounting policies

2-1 Basis of preparation

The Group prepares statutory consolidated financial statements in accordance with K-IFRS enacted by the *Act on External Audit of Stock Companies*.

The accompanying consolidated financial statements have been translated into English from Korean consolidated financial statements prepared in Korean. In the event of any differences in interpreting the consolidated financial statements or the independent auditor's report thereon, the Korean version, which is used for regulatory reporting purposes, shall prevail.

The directors have, at the time of approving the consolidated financial statements a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. Thus they continue to adopt the going-concern basis of accounting in preparing the consolidated financial statements.

2-2 Changes in material accounting policies

The material accounting policies used for the preparation of the consolidated financial statements are the same as those adopted in preparing annual financial statements as of and for the year ended December 31, 2022, except for the adoption of new standards and interpretations effective as of January 1, 2023.

Changes in accounting policies in accordance with the adoption of new standards and interpretations for the current reporting period are as follows:

2-2-1 K-IFRS 1001, *Presentation of Financial Statements and IFRS Practice Statement 2 Making Materiality Judgments – Disclosure of Accounting Policies (Amendments)*

The amendments change the requirements in K-IFRS 1001 with regard to disclosure of accounting policies. The amendments replace all instances of the term 'significant accounting policies' with 'material accounting policy information.' Accounting policy information is material if, when considered together with other information included in an entity's financial statements, it can reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements.

The supporting paragraphs in K-IFRS 1001 are also amended to clarify that accounting policy information that relates to immaterial transactions, other events or conditions is immaterial and need not be disclosed. Accounting policy information may be material because of the nature of the related transactions, other events or conditions, even if the amounts are immaterial. However, not all accounting policy information relating to material transactions, other events or conditions is itself material.

The International Accounting Standards Board has also developed guidance and examples to explain and demonstrate the application of the 'four-step materiality process' described in International Financial Reporting Standard Practice Statement 2.

There is no material impact of this amendment on the Group's consolidated financial statements.

2-2-2 K-IFRS 1001, *Presentation of Financial Statements– Disclosure of financial liabilities with condition to adjust exercise price (Amendments)*

The amendments require disclosure of valuation gains or losses (limited to those recognized in the profit or loss) of the conversion options or warrants (or financial liabilities including them), if all or part of the financial instrument with exercise price that is adjusted depending on the issuer's share price change is classified as financial liability as defined in paragraph 11 (2) of K-IFRS 1032.

There is no material impact of this amendment on the Group's consolidated financial statements.

2-2-3 K-IFRS 1008, *Accounting Policies, Changes in Accounting Estimates and Errors – Definition of Accounting Estimates (Amendments)*

The amendments replace the definition of a change in accounting estimates with a definition of accounting estimates. Under the new definition, accounting estimates are "monetary amounts in financial statements that are subject to measurement uncertainty" and the definition of a change in accounting estimates was deleted.

There is no material impact of this amendment on the Group's consolidated financial statements.

2-2-4 K-IFRS 1012, *Income Taxes – Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments)*

The amendments reduce the scope of the initial recognition exemption. Depending on the applicable tax law, equal taxable and deductible temporary differences may arise on initial recognition of an asset and liability in a transaction that is not a business combination and affects neither accounting profit nor taxable profit.

Under the amendments, an entity does not apply the initial recognition exemption for transactions that give rise to equal taxable and deductible temporary differences and is required to recognize the related deferred tax asset and liability with the recognition of any deferred tax asset being subject to the recoverability criteria in K-IFRS 1012.

There is no material impact of this amendment on the Group's consolidated financial statements.

2-2-5 K-IFRS 1012, Income Taxes – International Tax Reform – Pillar Two Model Rules (Amendments)

The amendments clarify that the standard applies to income taxes arising from tax law enacted or substantively enacted to implement the Pillar Two Model Rules published by the Organisation for Economic Co-operation and Development including tax law that implements qualified domestic minimum top-up taxes described in those rules. The amendments introduce a temporary exception to the accounting requirements for deferred taxes in K-IFRS 1012, so that an entity would neither recognize nor disclose information about deferred tax assets and liabilities related to Pillar Two income taxes. Following the amendments, the Group is required to disclose that it has applied the exception and to disclose separately its current tax expense (income) related to Pillar Two income taxes.

The Group applies a temporary exception to the accounting requirements for deferred taxes related to Pillar Two Model Rules, and as the law will be enforced from January 1, 2024, the current corporate tax expense related to Pillar Two income taxes is not recognized. The potential tax impact from the law enforcement is under consideration.

2-2-6 K-IFRS 1117, *Insurance Contracts (New standard)*

K-IFRS 1117 establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts and supersedes K-IFRS 1104, *Insurance Contracts*. The standard mainly features measuring the current value of insurance liabilities, recognizing insurance income on accrual basis and indicating the distinction between insurance gains and investment gains.

The Group does not have any contracts that meet the definition of an insurance contract under K-IFRS 1117, and there is no material impact of this amendment on the Group's consolidated financial statements.

The new and amended standards and interpretations that are issued, but not yet effective up to the date of issuance of the Group's consolidated financial statements are disclosed below.

2-2-7 K-IFRS 1001, *Presentation of Financial Statements – Classification of Liabilities as Current or Non-current (Amendments of 2020)*

The amendments clarify that the classification of liabilities as current or non-current is based on the entity's right to defer settlement of liabilities at the end of the reporting period, not by the likelihood that the entity will exercise the right or not. The amendments highlight that the right exists if the entity complies with the borrowing agreement at the end of the reporting period and the definition of settlement is transferring cash, equity instruments, other assets or services to the counterparty.

The amendments are effective for annual reporting periods beginning on or after January 1, 2024, must be applied retrospectively and early adoption is permitted. If an entity applies this amendments for an earlier period, it is also required to apply the 2023 amendments early.

2-2-8 K-IFRS 1001, *Presentation of Financial Statements – Non-current Liabilities with Covenants (Amendments of 2023)*

Only the borrowing agreement to be complied within the end of the reporting period ("Agreement"), affects the entity's right to defer settlement of liabilities at least 12 months after the reporting period.

Even if compliance of Agreement is assessed only after the reporting period, Agreement defines the existence of rights at the end of the reporting period. Agreement to be complied with only after the reporting period does not affect the right to defer settlement. However, if the deferral right depends on Agreement complied within 12 months after the reporting period, the entity should disclose information about the risk that the liability may be settled within 12 months. Disclosure includes information about Agreement (including the nature and the time for the entity to comply with Agreement), the carrying amount of the liability and the facts and circumstances indicating that the arrangement may be difficult to comply with.

The amendments are effective for annual reporting periods beginning on or after January 1, 2024, must be applied retrospectively, and early adoption is permitted. If an entity applies the amendments for an earlier period, it is also required to apply the 2020 amendments early.

2-2-9 K-IFRS 1007, *Statement of Cash Flows* and K-IFRS 1107, *Financial Instruments: Disclosures– Supplier Finance Arrangements (Amendments)*

These amendments add a requirement to disclose information about financing arrangements to enable financial statement users of K-IFRS 1007 to assess the impact of financing arrangements on the entity's liabilities and cash flows.

Additionally, K-IFRS 1107 has been amended to include financing arrangements as an example of requirements to disclose information related to exposure to liquidity concentration. This aims to ensure that users can evaluate the impact of financing arrangements on the entity's financial position accurately.

The term 'supplier finance arrangements' is not defined. Instead, the amendments describe the characteristics of an arrangement for which an entity would be required to provide the information.

To meet the disclosure objective, an entity will be required to disclose in aggregate for its supplier finance arrangements:

- The terms and conditions of the arrangements
- The carrying amount and associated line items presented in the entity's statement of financial position of the liabilities that are part of the arrangements
- The carrying amount and associated line items for which the suppliers have already received payment from the finance providers
- Ranges of payment due dates for both those financial liabilities that are part of a supplier finance arrangement and comparable trade payables that are not part of a supplier finance arrangement
- Types and effects of non-cash changes in the carrying amount of financial liabilities that are part of a supplier finance arrangement
- Liquidity risk information

The amendments, which contain specific transition reliefs for the first annual reporting period in which an entity applies the amendments, are applicable for annual reporting periods beginning on or after January 1, 2024. Earlier application is permitted.

2-2-10 K-IFRS 1116 *Leases- Lease Liability in a Sale and Leaseback (Amendments)*

The amendments add subsequent measurement requirements for sale and leaseback transactions that satisfy the requirements in K-IFRS 1115 to be accounted for as a sale. The amendments require the seller-lessee to determine 'lease payments' or 'revised lease payments' such that the seller-lessee does not recognize a gain or loss that relates to the right of use retained by the seller-lessee, after the commencement date.

The amendments are effective for annual reporting periods beginning on or after January 1, 2024. Earlier application is permitted.

2-2-11 K-IFRS 1001 *Presentation of Financial Statements– Disclosure of Virtual Assets (Amendments)*

The amendments add additional disclosure requirements required by other standards for transactions related to virtual assets, setting out disclosure requirement for each case of 1) holding virtual assets, 2) holding virtual assets on behalf of customer and 3) issuing virtual assets.

When holding a virtual asset, disclosure on the general information about virtual assets, the accounting policy applied and each virtual asset's acquisition method, cost and the fair value at the end of the reporting period are required. Also, when issuing a virtual asset, the entity's obligations and status of fulfilment of the obligation related to the issued virtual asset, the timing and amount of the recognized revenue of the sold virtual asset, the number of virtual assets held after issuance and important contract details shall be disclosed.

The amendments are effective for annual reporting periods beginning on or after January 1, 2024. Earlier application is permitted.

2-3 Scope and principles of consolidation

Significant methods of accounting for consolidation when preparing consolidated financial statements are as follows:

2-3-1 Subsidiaries

The Bank has the ability to determine the financial and operating policies of subsidiaries. Generally, the Bank classified the entity as subsidiary in case the Bank has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee. Subsidiaries are fully consolidated from the date on which the

control is transferred to the Group and excluded from the subsidiaries at the point when the Group loses the control.

2-3-2 Offset of the investment accounts of the Group and the corresponding equity accounts

The investment accounts of the Group and the corresponding equity accounts of the subsidiaries are eliminated in consolidation.

2-3-3 Process of difference between the costs of investment

The consolidated financial statements reflect on only the share of the consolidated subsidiaries post application of purchase accounting method. When applying the acquisition method, if the transfer consideration, the amount of non-controlling interest in the acquiree and the total fair value of the parent's previous holdings exceed the fair value of the subsidiary's asset liabilities, the difference is recognized as goodwill and is considered for impairment at the end of each reporting period.

Changes in the parent's ownership interest in a subsidiary that does not lose control after the date of acquisition of control are treated as capital transactions. When the group loses control of a subsidiary, a gain or loss on disposal is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), less liabilities of the subsidiary and any non-controlling interests.

2-3-4 Elimination of intercompany transactions and the unrealized gain or loss, etc.

All significant intercompany transactions and the account balances among the consolidated companies are eliminated on consolidation. Unrealized gains or losses included in loans and borrowings arising from transactions between consolidated companies are eliminated on consolidation. The related accounts receivable and payable are also eliminated on consolidation.

2-3-5 Investments in associates and a joint venture

Investments in entities over which the Group has control or significant influence are accounted for using the equity method. Under the equity method of accounting, the Group's initial investment in an investee is recorded at acquisition cost. Subsequently, a share of changes in equity (the Group's share of amount of the changes in associates' net assets) is adjusted to reflect in the carrying value. The share of changes in equity is accounted differently per sources. If the change in net asset has occurred due to net income or loss, it is accounted for as gain or loss on equity method. If it has occurred due to unappropriated retained earnings carried over from prior years, it is accounted for as changes in retained earnings under equity method. The change in net assets due to changes in equity, except those mentioned above, is accounted for as equity adjustments in equity method or negative equity changes in equity method.

If the carrying amount of investments in associates is equal to or under '0,' it suspends equity method and carries the investments value at '0.' If the Group has investment assets, such as preferred shares and long-term bonds of associates, it continues recognizing its share of further losses to the extent of the carrying amount of such asset's value '0.' The Group resumes the application of the equity method if the Group's share of income or change in equity of an investee exceeds the Group's share of losses accumulated during the period of suspension of the equity method of accounting. When the Group retains an interest in the former associate or a joint venture and the retained interest is a financial asset, the Group measures the retained interest at fair value at that date and the difference between the carrying amount of the associate or a joint venture at the date the equity method was discontinued, and the fair value of any retained interest and any proceeds from disposing of a part interest in the associate or a joint venture is included in the determination of the gain or loss on disposal of the associate or joint venture.

At the date of acquisition, the excess of the cost of the investment over the Group's share of the net fair value of the investee's identifiable assets and liabilities is accounted for as goodwill or negative goodwill. The goodwill is not amortized, and if there is any indication that investment shares in associates and joint ventures, including those, have been impaired, it is being considered against the recoverable value (greater of net fair value and value in use). In addition, the difference between the fair value and the carrying amount of the identifiable assets and liabilities of the investee at the time of stock acquisition is amortized or reversed according to the equity method of the investee.

The Group's share in the investee's unrealized profits and losses resulting from transactions between the Group and its investee is eliminated to the extent of the interest in the investee.

2-3-6 Special reserve on trust accounts

A special reserve provided under the arrangement of guaranteed fixed rate of return and guaranteed repayment of the principal is included under the retained earnings in the consolidated financial statements.

2-3-7 Non-controlling interests

Subsidiaries' equity that is not included in the Group's share is accounted as non-controlling interests. In case, subsidiaries' non-controlling interests are below '0,' negative non-controlling interests are presented as deduction of equity.

2-4 Foreign currency transaction

2-4-1 Functional currency

When preparing for the consolidated financial statements, the Group measures and recognizes all items and transactions according to the functional currency. The term functional currency is defined as the monetary unit of account of the principal economic environment in which the entity operates and trades between entities using its own functional currency and other currencies that are converted to the Group's functional currency to be measured and recognized.

2-4-2 Transactions and balances at the end of the reporting period

Transactions in foreign currencies are initially recognized as functional currency, applying spot or average exchange rates. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange at the reporting date and differences arising on settlement or translation of monetary items are recognized in profit or loss. Non-monetary assets and liabilities at fair value in a foreign currency are translated at the exchange rates at the end of the reporting date. When a gain or loss on a non-monetary item is recognized in profit or loss, any exchange differences of that gain or loss are recognized in profit or loss and when a gain or loss on a non-monetary item is recognized in other comprehensive income, any exchange differences of that gain or loss are recognized in other comprehensive income. Non-monetary items not measured at fair value in a foreign currency are translated using the exchange rates as at the dates of the initial transactions and thus, there are no exchange differences.

However, an item for which settlement is neither planned nor likely to occur in the foreseeable future is, in substance, a part of the entity's net investment in that foreign operation. Exchange differences arising on a monetary item that forms a part of a reporting entity's net investment in a foreign operation are recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal of the net investment.

2-4-3 Translation of the presentation currency

As of the reporting date, the assets and liabilities of overseas branches are translated into the Group's presentation currency, Korean won ("KRW").

The Group's assets and liabilities are translated at the rate of exchange prevailing at the reporting date and the Group's consolidated statements of profit or loss and other comprehensive income and changes in equity are translated using the exchange rates at the transaction date or the average exchange rates for the period. The exchange differences arising on translation are recognized in other comprehensive income.

2-5 Cash and cash equivalents

Cash and cash equivalents in the consolidated statements of financial position are composed of cash at bank and on hand, etc. The purpose of cash and cash equivalents is not to make short-term investments, but to meet short-term cash demands. Cash and cash equivalents are highly liquid, easily convertible and subject to an insignificant risk of changes in value.

Deposits restricted from use by the Group under contracts with third parties are included as part of cash, unless such restrictions prevent deposits from meeting the definition of cash any longer. Contractual restrictions affecting the use of cash and deposits are described in Note 10-2.

2-6 Financial asset classification and subsequent measurement

At initial recognition, financial assets are classified as measured at fair value through profit or loss ("FVTPL"), fair value through other comprehensive income ("FVOCI") and amortized cost, and financial liabilities are classified as measured at FVTPL and amortized cost and in accordance with the business model and characteristics of the contractual cash flows.

Regular-way purchase or sale of financial assets is recognized at the trade date that an entity commits itself to purchase or sell an asset. Regular-way purchase or sale of financial assets means purchase or sale of financial assets under a contract whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned.

Financial assets and liabilities are initially measured at fair value and the transaction costs directly attributable to the acquisition (issuance) of financial assets (liabilities) are added to (deducted from) the fair value at initial recognition if they are not measured at FVTPL. The fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of financial instruments is generally measured at the transaction price (the fair value of the consideration received or transferred) at initial recognition.

2-6-1 Financial assets at FVTPL

Financial assets held for trading or designated as at FVTPL and financial assets that are not classified as at FVOCI or amortized cost are classified as FVTPL.

Also, the Group may designate a financial asset as measured at FVTPL if doing so eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on a different base.

Financial assets at FVTPL are measured at fair value and the gain or loss on valuation is recognized as profit or loss. Dividends and interest income from the financial assets are also recognized as profit or loss.

2-6-2 Financial assets at FVOCI

The Group classifies debt securities, which are held within a business model, whose objective is achieved by both collecting contractual cash flows and selling financial assets and meet the assessment of contractual cash flow characteristics and equity securities designated as measured at FVOCI, which are held not with intention to sell, but for strategic purpose, as financial assets at FVOCI. Financial assets at FVOCI are measured at fair value after initial recognition. Gain or loss arising from changes in the fair value is recognized as other comprehensive income, except for interest income under the effective interest method, dividends and foreign exchange differences on monetary assets that are directly recognized in profit or loss.

When financial assets at FVOCI are disposed of, the cumulative income recognized in other comprehensive income is transferred to the current profit or loss. However, the cumulative income recognized for equity securities designated as financial assets at FVOCI is not transferred to the current profit or loss.

The fair value of financial assets at FVOCI presented in foreign currencies is translated using the exchange rate at the end of the reporting period. Changes in the fair value from exchange differences due to changes in amortized cost are recognized in the current profit or loss, while other changes are recognized directly in equity.

2-6-3 Financial assets at amortized cost

Financial assets within a business model whose objective is achieved by collecting contractual cash flows, which meet the contractual cash flow characteristics are classified as financial assets at amortized cost. After initial recognition, the financial assets are measured at amortized cost using the effective interest rate ("EIR") method and presented by deducting from the amortized cost the allowance for loan losses. Interest income is recognized using the effective interest method.

The Group defers loan origination fees ("LOF")/ loan origination costs ("LOC") associated with originating loans and LOCs that have future economic benefits. Loan balances are reported net of these LOF/LOCs. The deferred LOF/LOCs are amortized based on the effective interest method, with the amortization recognized as adjustments to interest income.

2-7 Derivative financial instruments and hedge accounting

Derivative instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are classified as trading derivatives or hedging derivatives depending on whether hedge accounting is applied. After initial recognition, derivative instruments are subsequently remeasured at fair value. Any gains or losses arising from changes in fair value on derivatives are taken directly to the consolidated financial statements, except for the effective portion of cash flow hedges or hedges of net investment in a foreign operation, which is recognized in other comprehensive income.

The Group applies fair value hedge accounting to hedge the changes in fair value, as a whole or some parts, of recognized assets or liabilities from particular risks or an unrecognized firm commitment. Cash flow hedge is accounted to hedge the changes in cash flows of recognized assets or liabilities from particular risks or a highly probable forecast transaction.

The Group documents the hedge relationship, risk management objective, strategy, the nature of the risk being hedged and method to assess the effectiveness of hedge to apply hedge accounting. The effectiveness of hedge means the effect of offsetting the exposure to changes in fair value or cash flow of hedged items by changes in fair value or cash flow of derivatives attributed by the hedged risk. The Group assesses and documents whether such hedges are expected to be highly effective at the end of the reporting period.

An ineffective part of the hedge may be due to differences between underlying variables, such as acquisition date, credit risk or liquidity and the hedging

instruments that the entity accepts to achieve an effective cost-to-cost hedging relationship with.

2-7-1 Fair value hedges

When fair value hedge accounting is applied, the unrealized gain or loss on hedged items that are attributable to a hedged risk and hedging instruments is symmetrically recognized in the consolidated financial statements as current income for the same reporting period to ensure that changes in the fair value of the hedged items are offset by changes in the fair value of the hedging instruments. When the hedged item is an equity instrument designated at FVOCI, the hedging gain or loss remains in other comprehensive income. If an application of hedge accounting is no longer valid, the Group discontinues the hedge accounting prospectively. Any adjustment to the carrying amount of hedged items is amortized to profit or loss in the consolidated statements of profit or loss and other comprehensive income over the remaining maturity using the effective interest method.

2-7-2 Cash flow hedges

When cash flow hedge accounting is applied, the effective portion of the unrealized gain or loss on the hedging instrument is directly recognized in other comprehensive income (loss) in the consolidated statements of financial position to ensure that changes in the cash flows of the hedged items are offset by changes in the cash flows of the hedging instruments while any ineffective portion is recognized immediately in the consolidated statements of profit or loss and other comprehensive income. Amounts recognized as other comprehensive income are transferred to the consolidated statement of comprehensive income when the hedged transaction affects profit or loss. If an application of hedge accounting no longer meets the criteria, the Group discontinues the hedge accounting prospectively and the cumulative gain or loss on the hedging instrument previously recognized in other comprehensive income is transferred to profit or loss in the consolidated statements of profit or loss and other comprehensive income.

2-7-3 Hedge accounting of net investment in a foreign operation

When applying hedge accounting of net investment in a foreign operation, the effective portion of changes in fair value of the hedging instrument is recognized in other comprehensive income and the ineffective portion of the hedge is recognized as current profit or loss in order to offset changes in the fair value of the hedged item caused by the hedging with changes in the fair value of the hedging instrument. The effective portion of hedge recognized in other comprehensive income will be reclassified from other comprehensive income to current profit or loss in accordance with K-IFRS 1021, *The Effects of Changes in Foreign Exchange Rates*, at the time of disposal of a foreign operation or disposal of a portion of its foreign operations in the future.

2-7-4 Embedded derivatives

An embedded derivative is a component of a hybrid contract that also includes a non-derivative host with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative. Derivatives embedded in other financial instruments or other host contracts are accounted for as separate derivatives when their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

2-7-5 'Day 1' profit or loss

In case of derivatives in Level 3, fair value is determined using data that is not observable from markets. The difference between the transaction price and fair value at initial recognition (a 'Day 1' profit or loss) is deferred and amortized up to its maturity using the straight-line method.

2-7-6 Credit risk valuation adjustment

When assessing derivatives at fair value, expected loss from credit risk is measured and deducted from derivative assets to reflect credit risk of counterparties.

2-8 Expected credit loss ("ECL") for financial assets

Loss allowance is recognized for financial assets at FVOCI and amortized cost using the ECL model.

ECL is the weighted-average amount of possible outcomes within a certain range, reflecting the time value of money; estimates on the past; current and future situations; and information accessible without excessive cost or effort.

The ECL can be measured in following three ways:

- General approach: when financial assets do not fall into below two categories and are off-balance-sheet undrawn commitments
- Simplified approach: when financial assets are trade receivables, contract assets or lease receivables
- Credit-impaired approach: when financial assets are credit impaired at initial recognition

The general approach is applied differently depending on the significance of the increase of the credit risk. If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Group shall measure the loss allowance for that financial instrument at an amount equal to 12-month ECL. If the credit risk on that financial instrument has increased significantly since initial recognition, the Group shall measure the loss allowance for a financial instrument at an amount equal to the lifetime ECL at each reporting date.

The loss allowance is measured at an amount equal to lifetime ECL for the simplified approach and the Group shall only recognize the cumulative changes in lifetime ECL since initial recognition as a loss allowance for purchased or originated credit-impaired financial assets at each reporting date for the credit-impaired approach.

The following non-exhaustive list of information may be relevant in assessing changes in credit risk:

- Significant changes in internal price indicators of credit risk as a result of a change in credit risk since inception
- Other changes in the rates or terms of an existing financial instrument that would be significantly different
- An actual or expected significant change in the financial instrument's external credit rating
- An actual or expected internal credit rating downgrade for the borrower or decrease in behavioral scoring used to assess credit risk internally
- An actual or expected significant change in the operating results of the borrower
- Past-due information, etc.

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

Despite the foregoing, the Group assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low credit risk at the reporting date.

2-8-1 Reflecting forward-looking information

The Group measures the significance of the increase of the credit risk and the ECL using forward-looking information.

The Group assumes that the risk component is correlated with changes in market conditions and calculates the ECL using the forward-looking information by modeling macroeconomic variables and risk components.

The forward-looking information used to measure the ECL is derived from 'stress-case' or 'worst-case' scenarios.

2-8-2 Measurement of ECL for financial assets at amortized cost

ECL for financial assets at amortized cost is measured as the present value of the difference between the contractual cash flows that are due to the Group under the contract and the cash flows that the Group expects to receive. For this purpose, the Group calculates expected contractual cash flows for individually significant financial assets (allowance for loan losses on an individual assessment). Financial assets insignificant in value individually are measured on a collective basis with financial assets with similar credit risks (allowance for loan losses on a collective assessment).

2-8-2-1 Allowance for loan losses on an individual assessment basis

Allowance for loan losses on an individual assessment basis is based on the best estimates of management with regard to the present value of cash flows expected to be recovered from receivables. In estimating the cash flows, the Group uses all available information, including the financial conditions, such as the operating cash flows of counterparties and the net realizable value of collateral provided.

2-8-2-2 Allowance for loan losses on a collective assessment basis

Allowance for loan losses on a collective assessment basis uses the estimation model that accounts for the forward-looking information based on the past loss rate to measure the ECL. The model considers the probability of default and the loss given default ("LGD") reflecting the type of instruments and borrowers, credit rating, portfolio size and collection period. Also, certain assumptions are applied to model the ECL measurement and to determine input variables based on past experiences and forward-looking information. Methodologies and assumptions for this model are regularly reviewed to minimize the difference between the allowance for loan losses and the actual loss.

The ECL for financial assets at amortized cost is recognized as the allowance for loan losses, and when the financial asset is determined to be irrecoverable, the carrying amount and allowance for loan losses are decreased. If financial assets previously written off are recovered, the allowance for loan losses is increased and the difference is recognized in the current profit or loss.

2-8-3 ECL measurement for financial assets at FVOCI

The measurement method is the same as the one for financial assets at amortized cost, but the change in the allowance is recognized as other comprehensive income. The allowance for financial assets at FVOCI is reclassified from other comprehensive income to current profit or loss when the assets are disposed of or repaid.

2-9 Derecognition of financial assets

A financial asset is derecognized when the contractual rights to the cash flows from the financial asset expire, or the Group transfers substantially all the risks and rewards of ownership of the financial asset. If the Group neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, but has retained control, the Group recognizes the asset and the associated liability to the extent of the Group's continuing involvement in the financial asset. If most of the risks and rewards of owning a financial asset are controlled without holding or transferring it, the Group recognizes them in its consolidated statements of financial position as the Group continues to be involved in the financial asset and related liabilities to be paid.

On derecognition of a financial asset measured at amortized cost, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognized in profit or loss. In addition, on derecognition of an investment in a debt instrument classified as at FVOCI, the cumulative gain or loss previously accumulated in the investments revaluation reserve is reclassified to profit or loss. In contrast, on derecognition of an investment in equity instrument that the Group has elected on initial recognition to measure at FVOCI, the cumulative gain or loss previously accumulated in the investments revaluation reserve is not reclassified to profit or loss, but is transferred to retained earnings.

2-10 Classification and measurement of financial liabilities

All financial liabilities that are classified as financial liabilities at FVTPL, borrowings or others are measured initially at their fair value, minus transaction costs, except in the case of financial liabilities recorded at FVTPL.

2-10-1 Financial liabilities at FVTPL

Financial liabilities at FVTPL include financial liabilities held for trading and financial liabilities designated upon initial recognition as at FVTPL. Financial liabilities are classified as held for trading if they are acquired for the purpose of selling in the near term. All derivatives, including an embedded derivative separated from the host contract, are reclassified as financial liabilities at FVTPL, except for financial liabilities designated as effective hedging instruments or financial guarantee contracts. After initial recognition, the changes in the fair value of the financial liabilities at FVTPL and the related interest expenses are recognized as profit or loss. However, for financial liabilities that are designated as at FVTPL, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognized in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss.

The Group performs securities lending and borrowing classified as held-for-trading financial liabilities. When the Group borrows securities from Korea Securities Depository, securities borrowed are managed as memorandum value and when selling them, they are recorded as securities sold. At closing, the difference between the price securities are sold and the market price prevailing on the closing date is taken into account as valuation gain or loss on securities sold, and at the time of selling the securities, the difference in book value and the price at which securities are purchased is recorded as trading gain or loss on securities sold.

2-10-2 Deposits, borrowings and debentures

Interest-bearing deposits, borrowings and debentures are subsequently measured at amortized cost using the effective interest method. The difference between the consideration received after deducting transaction costs and the amount repayable on maturity is amortized by the effective interest method and recognized in profit or loss for the relevant period.

2-11 Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged, canceled or expired. When an existing financial liability is replaced by another from the same lender on substantially different terms or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the consolidated statements of profit or loss and other comprehensive income. It is assumed that the terms are substantially different if the discounted present value of the cash flows under the new terms, discounted using the original EIR is at least 10% different from the discounted present value of the remaining cash flows of the original financial liability.

2-12 Offsetting of financial assets and liabilities

Financial assets and financial liabilities are offset, and the net amount reported in the consolidated statements of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

2-13 Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. If the obligation is expected, it is unlikely or the amount of the loss cannot be estimated reliably, the amount is disclosed. If the effect of the time value of money is material, provisions are stated at present value. At the end of each reporting period, the remaining provision balance is reviewed and assessed to determine if the current best estimate is being recognized. If the existence of an obligation to transfer economic benefit is no longer probable, the related provision is reversed during the period.

The Group accounts for the payment guarantee provision in the same way in accounting allowance for loan losses on a collective assessment basis by applying the Cash Conversion Factor to the confirmed/unconfirmed payment guarantees and bills endorsed. The Group provides an allowance for loan losses on a certain portion of unused credit line. The Group records the provision for such unused balances as an allowance for loan losses on unused commitments, which are calculated by applying a credit conversion factor and provision rates.

2-14 Financial guarantee contract

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument and is measured at fair value on the date of initial recognition. After initial recognition, the Group, as an issuer of such a contract, measures it at the higher of (i) the amount determined in accordance with K-IFRS 1109, *Financial Instruments*, or (ii) the amount initially recognized less, when appropriate, cumulative amortization recognized in accordance with K-IFRS 1115, *Revenue from Contract with Customer*.

2-15 Bonds purchased under resale agreements and bonds sold under repurchase agreements

Bonds purchased under resale agreements and bonds sold under repurchase agreements are included in loans and borrowings, respectively, in the accompanying consolidated statements of financial position. Interest income and expenses from purchase or sale are recognized as interest income on loans and interest expenses on borrowings, respectively.

2-16 Property, plant and equipment

Property, plant and equipment are measured at cost, and the carrying amount after initial recognition is expressed as the amount of the acquisition cost minus the accumulated depreciation and the accumulated impairment loss. The cost of property, plant and equipment is an expenditure directly related to the purchase or construction of the asset, including the cost directly related to the location and condition required to operate the asset in the manner intended by management and the cost initially estimated to be required to dismantle, remove or restore the site.

The subsequent costs are recognized as an asset when it is probable that future economic benefits associated with the asset will flow to the Group and the costs of the asset can be measured reliably. The other maintenances and repairs are expensed in the year in which they are incurred, and the carrying amount of certain parts that are replaced is derecognized.

Land is not depreciated. For depreciation of other assets, amount of acquisition cost, less residual value is calculated on a straight-line basis and declining-balance basis over the following estimated useful life of the asset:

Classification	Depreciation method	Years
Buildings, building components and structures	Straight-line method	5 to 55
Leasehold improvements	Straight-line method	3 to 10
Equipment and vehicles	Declining-balance method	3 to 20

If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is immediately reduced to its recoverable amount.

The residual value and economic useful life are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for, if necessary. Any gain or loss arising on the derecognition of the asset is recognized in 'Non-operating income' or 'Non-operating expenses' in the consolidated statements of profit or loss and other comprehensive income in the year the asset is derecognized.

2-17 Investment properties

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are stated using the cost model.

Investment properties are derecognized either when they have been disposed of or the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in the consolidated statements of profit or loss and other comprehensive income in the period of derecognition, and transfers are made to or from investment property only when there is a change in use. Land is not depreciated among investment properties, and the depreciation method of the buildings is a straight-line method, and their useful life is 5 to 55 years. The depreciation method, residual value and useful life of investment property are reviewed at the end of each reporting period, and if it is deemed appropriate to change it, it is accounted for as a change in accounting estimates.

2-18 Intangible assets

An intangible asset, which comprises industrial property rights, software, development costs and others, is recognized as an asset only if it is probable that future economic benefits associated with the asset will flow to the Group and the costs of the asset can be measured reliably. Intangible assets acquired individually are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is their fair value as of the date of acquisition in accordance with K-IFRS 1103, *Business Combination*.

Amortization of intangible assets with definite useful lives is calculated on the following amortization method over the estimated useful life of the assets:

Classification	Depreciation method	Years
Industrial property rights, software and system development costs	Straight-line method	5
Core deposits	Straight-line method	14
Other intangible assets	Straight-line method	1 to 12

Intangible assets with indefinite useful lives are not amortized, but are annually tested for impairment or whenever there is an indication that the intangible asset may be impaired. The assessment of indefinite useful life is reviewed annually to determine whether the indefinite useful life continues to be supportable.

2-19 Impairment of non-financial assets

The Group tests the depreciable asset for impairment whenever there is a change of environment or an event that the carrying amount may not be recoverable. The Group recognizes an excess of the carrying amount over the recoverable amount as an impairment loss. The Group defines recoverable amount as the higher of an asset's or cash-generating unit ("CGU")'s fair value, less costs to sell, or its value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels (CGUs) for which there are separate and identifiable cash flows. The Group assesses the reversal of an impairment loss recognized for the non-financial assets other than goodwill at the end of the reporting period.

2-20 Net defined benefit liabilities (assets)

The Group calculates defined benefit liabilities and pension benefit expenses based on a defined benefit plan and defined contribution plan when an employee retires in accordance with pension-related regulations. For defined benefit plans, the cost of retirement benefits is measured by an actuary services company, using the projected unit credit method. The present value of a defined benefit obligation is computed by discounting expected future cash outflows with market rate of return measured against the yield of high-graded corporate bond, whose date of payment and maturity is similar to that of a defined benefit obligation. Actuarial gains and losses, incurred from the change in actuarial assumptions and the difference between the assumptions and the actual results, are recognized in other comprehensive income for the period. Past service cost is recognized immediately to the extent that the benefits are already vested and otherwise is amortized on a straight-line basis over the period until the benefits become vested.

The Group has entered into retirement trust fund and retirement pension plan agreements to pay retirement benefits to its employees. The retirement benefit obligation represents the present value of the defined benefit obligation as adjusted for unrecognized past service costs and as reduced by the fair value of plan assets. Any asset resulting from this calculation is limited to unrecognized actuarial losses and past service costs, plus the present value of available refunds and reductions in future contributions to the plan.

Discretionary contributions made by employees or third parties reduce service cost upon payment of these contributions to the plan. When the formal terms of the plans specify that there will be contributions from employees or third parties, the accounting treatment depends on whether the contributions are linked to service, as follows:

- If the contributions are not linked to services (e.g. contributions are required to reduce a deficit arising from losses on plan assets or from actuarial losses), they are reflected in the remeasurement of the net defined benefit liability (asset).
- If contributions are linked to services, they reduce service costs. For the amount of contribution that is dependent on the number of years of service, the entity reduces service cost by attributing the contributions to periods of service using the attribution method required by K-KFRS 1019 paragraph 70 for the gross benefits. For the amount of contribution that is independent of the number of years of service, the entity reduces service cost in the period in which the related service is rendered.

2-21 Share-based payment

In the case of equity-settled share-based payment, the goods or services received and the corresponding increase in equity are measured directly at the fair value of the goods or services and accounted for as compensation costs and equity. If the goods or services provided cannot be reliably measured, the endowed equity is indirectly estimated at fair value and the Group accounts for compensation costs and equity (capital adjustment). The cost of cash-settled transactions is measured initially at fair value at the grant date, taking into account the terms and conditions upon which the instruments were granted. This fair value is expensed over the period until vesting with recognition of a corresponding liability. The liability is remeasured to fair value at each reporting date including the settlement date, with changes in fair value recognized in the consolidated statements of profit or loss and other comprehensive income. Also, in the case of a selectable share-based payment transaction in which the employees have a choice between a cash-settled transaction and an equity-settled transaction, the Group records the amount depending on its substance.

2-22 Employee benefits

2-22-1 Short-term employee benefits

When employees have rendered services to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits. This amount is expected to be settled in whole before 12 months after the end of the reporting period, in exchange for those services.

2-22-2 Termination benefits

The Group recognizes an expense for termination benefits when an employee accepts the offer or when a restriction on the Group's ability to withdraw the offer takes effect.

2-23 Recognition of income tax expenses and deferred tax assets and liabilities

Income taxes are composed of current and deferred taxes. All items related to taxes, other than those recognized directly in equity, are accounted for in the consolidated statements of profit or loss and other comprehensive income.

Accordingly, items recognized directly in equity and the related taxes are accounted for as other comprehensive income in the consolidated statements of profit or loss and other comprehensive income.

The tax rates and tax laws used to compute the amount are those that are enacted, or substantively enacted, by the reporting date, in the countries where the Group operates and generates taxable income. If the applied tax laws require an interpretation, the Group calculates income tax payable expected to be paid to the taxation authorities based on the opinion made when the taxes were reported.

Deferred tax is provided on the temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

The Group measures deferred tax assets and liabilities at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted, or substantively enacted by the end of the reporting period.

The Group recognizes a deferred tax asset for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilized.

The Group recognizes a deferred tax liability for all taxable temporary differences with investments in subsidiaries and associates, except to the extent that both of the following conditions are satisfied: (a) the Group is able to control the timing of the reversal of the temporary difference and (b) it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments and interests are only recognized to the extent that it is probable that there will be sufficient taxable profits against which to utilize the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

The Group offsets deferred tax assets and liabilities if, and only if, the Group has a legally enforceable right to set off current tax assets against current tax liabilities, and the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either on the same taxable entity or different taxable entities, which intend either to settle current tax liabilities and assets on a net basis or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred tax liabilities or assets are expected to be settled or recovered.

2-24 Equity

2-24-1 Classification of equity

The Group classifies financial instruments at initial recognition as either financial liabilities or financial equity depending on the contractual materiality. In the case where it is possible to avoid the related contractual obligations, the financial item is classified as a financial equity. An equity is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities.

2-24-2 Stock issuance costs

New stock issuance costs or incremental costs related to the stock issuance for business combinations are recorded as a deduction from paid-in capital, net of tax effects.

2-25 Earnings per share

Basic and diluted earnings per share ("EPS") are computed by dividing net income by the weighted-average number of shares of common stock outstanding during the year.

2-26 Accounting basis for trust accounts

The Group accounts for trust operations (the "trust accounts") separately from the Group's accounts in accordance with the *Financial Investment Services and Capital Markets Act*. In this regard, the funds lent by the Group to the trust account are accounted for as due to trust accounts of the Group's accounts, and the funds borrowed by the Group from the trust account are accounted as due from trust accounts of the Group's accounts. Trust compensation paid to the trustee (the Group) in connection with the operation, management and disposal of trust property is accounted as trust operation profits. The Group recognizes trust commissions earned from trust accounts as income from trust operations in connection with the operation, management and disposal of trust property. In addition, in the case of a joint operation money trust with a "guarantee contract of the principal or profits" of the trust account, if the operating profit falls short of the "principals to be preserved or profits to be guaranteed" and this shortage is more than covered by the trust compensation and special reserves, the Group accounts the amount paid to the trust account as the trust account's operating losses.

2-27 Lease accounting

Under K-IFRS 1116, *Leases*, the Group applies a single recognition and measurement method for all leases, except for leases of low-value assets. This standard provides guidance on specific requirements and simplified methods applied by an entity.

The Group recognized the right-of-use assets and the lease liabilities that were previously classified as operating leases, except for leases of low-value assets. Right-of-use assets for most leases were recognized as carrying amounts measured as if they had been applying the standards from the inception of the lease, except that they were discounted at the lessee's incremental borrowing rate as of the date of initial application. In some leases, the right-of-use asset was recognized based on the amount equal to the lease liabilities, adjusted for any related prepaid and accrued lease payments previously recognized. The lease liability was measured at the present value of the remaining lease payments, discounted at the incremental borrowing rate as of the date of the initial application.

The practical expedients that the Group applied are as follows:

- Application of a single discount rate to a portfolio of leases with significantly similar characteristics
- Replacement of impairment review by determining whether leases are onerous before the initial application date
- Exclusion of initial direct costs from the measurement of the right-of-use asset at the initial application date
- Using hindsight for lessee

Leases for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

Amounts due from lessees under finance leases are recognized as receivables at the amount of the Group's net investment in the leases. Finance lease income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

2-28 Merchant banking account

As permitted by the Restructuring of Financial Institutions Act, the Group may continue its merchant banking operations, including leasing business, until the existing contracts acquired from the Korea International Merchant Bank upon merger are terminated.

Material accounting policies applied to the Group's merchant banking operations are summarized as follows:

2-28-1 Revenue recognition on discounted notes

Interest income on discounted notes is accrued over the term of the notes. Income from the sale of discounted notes is recognized at the date of transaction based on the difference between the purchase prices and sales prices of the notes, adjusted for interest earned during the holding period.

2-28-2 Cash Management Accounts ("CMA")

The Group recognizes interest income from CMA investments and interest expenses from CMA deposits as operating income and operating expenses, respectively.

2-29 Interest income and interest expenses

Interest income and interest expenses are recognized over time using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a financial asset or a financial liability and allocating the interest income or interest expenses over the relevant period. The EIR is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. When calculating the EIR, the Group estimates cash flows considering all contractual terms of the financial instrument, but does not consider future credit losses. Cash flows at the time of

the calculation include all the fees and points paid to, or received, from parties to the contract that are an integral part of the EIR, including transaction costs, and all other premiums or discounts.

2-30 Fees and commission income

The Group's revenue recognition standard varies depending on the type of service provided to customers. Fee income, which is an integral part of the EIR of financial instruments, is adjusted using the EIR and recognized as interest income.

Fee income is recognized using the five-stage revenue recognition model (Identification of a contract with a customer → Identification of performance obligations in the contract → Determination of the transaction price → Allocation of the transaction price to the separate performance obligations in the contract → Recognition of revenue upon satisfying the performance obligations) in accordance with K-IFRS 1115.

2-31 Dividend income

Dividend income is recognized when the Group's right to receive the payment is established.

2-32 Government grants

Government grants are recognized at fair value when there is a reasonable assurance that the entity will comply with the conditions attached to it and that the grant will be received. Grants related to income are recognized as revenue on a systematic basis over the period necessary to match the related costs that the grant is intended to cover. On the other hand, grants related to an asset are presented by subtracting the carrying amount of the asset and accounting for by deducting depreciation expenses over the useful life of the asset.

3. Material judgments and accounting estimates

In the application of the Group's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily observable from objective sources. The estimation and assumption are based on other factors that are related to historical experience. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future period if the revision affects both current period and future period.

In the process of applying the Group's accounting policies, management has made the following judgments that have a material effect on the amounts recognized in the consolidated financial statements:

3-1 Fair value of financial instruments

The fair value of financial instruments is determined by referencing quoted market prices in active markets in the first place. For financial instruments not traded in an active market, the fair value is determined using appropriate valuation techniques, including (i) between knowledgeable and willing parties in a recent arm's-length transaction, (ii) reference to the current fair value of another instrument that is substantially the same, (iii) discounted cash flow ("DCF") analysis and (iv) option-pricing models.

3-2 ECL of financial assets

The Group recognizes impairment losses on debt instruments, lease receivables, loan commitment and financial guarantee contracts that were accounted for at amortized cost, or at FVOCI, based on the ECL impairment model using a three-stage model for 12-month ECL, or lifetime ECL, based on changes in credit risk since initial recognition of financial assets.

Classification		Loss allowance
STAGE 1	Credit risk on a financial instrument has not increased significantly since initial recognition.	12-month ECL: Expected credit losses that result from default events on a financial instrument that are possible within the 12 months after the reporting date.
STAGE 2	Credit risk on a financial instrument has increased significantly since initial recognition.	Lifetime ECL: Expected credit losses that result from all possible default events over the expected life of a financial instrument.
STAGE 3	Credit-impaired.	

The cumulative changes in lifetime ECL since initial recognition are recognized as loss allowance for a financial asset that is considered credit impaired at initial recognition.

3-3 Retirement benefit

The cost of providing benefits under the defined benefit plans is determined using the actuarial valuation. Actuarial assumptions were made for the discount rate and an increase in the future pay rate. Retirement benefits include significant uncertainties in the estimates due to the longer duration of the period.

3-4 Impairment of non-financial assets

The Group assesses at the end of each reporting period, whether there is an indication that non-financial assets may be impaired. An intangible asset with an indefinite useful life is tested for impairment annually or tested whenever there is an indication that the intangible asset may be impaired. Other non-financial assets are tested for impairment whenever there is an indication that the book value cannot be recovered. For the calculation of value in use, management estimates an expected future cash flow incurred from the asset or CGU. For the calculation of present value of the expected future cash flow, appropriate discount rate is selected.

3-5 Income tax

There have been various transactions and tax accounting methods, which have made computing the final tax expenses for the period uncertain. The contingent liability from any future tax assessments is based on the estimates of the likelihood of additional taxes imposed and has been included in the Group's consolidated financial statements for the current period. When the finalized tax expense assessments are different from the appropriated amounts, the differences, if any, are recognized in current deferred tax assets, liabilities and expenses for the period.

4. Fair value measurement of financial assets and liabilities

The standards the Group applies when measuring fair values of financial assets and liabilities are described below:

- a. Quoted market prices at the settlement date in an active market are the best evidence of fair value and should be used when available.
- b. If a market for a financial instrument is not active, the Group establishes fair value using a valuation technique that makes maximum use of market inputs and includes (i) between knowledgeable and willing parties in a recent arm's-length transaction, (ii) reference to the current fair value of another instrument that is substantially the same, (iii) DCF analysis and (iv) option-pricing models. An acceptable valuation technique incorporates all factors that market participants would consider in setting a price and is consistent with accepted economic methodologies for pricing financial instruments.
- c. When determining fair value using the valuation techniques, comparison with the current market transaction of another instrument that is substantially the same as the financial instrument needed to be objectively substantiated or inclusion of variables in the marketable data must be performed. Not all significant market variables are observable and in relevant cases, reasonable estimates or assumptions are required to determine the fair value.

4-1 Fair value hierarchy of financial instruments

Fair value hierarchy of financial instruments as of December 31, 2023 and 2022, is as follows (Korean won in millions):

<December 31, 2023>

Classification	Levels of the fair value hierarchy (*1)			Total
	Level 1	Level 2	Level 3	
Financial assets				
Financial assets at FVTPL				
Equity securities	74,230	–	24,995	99,225
Debt securities	4,997,752	5,139,180	1,305,400	11,442,332
Derivative assets held for trading	–	5,929,311	36,561	5,965,872
Private convertible bonds	–	–	7,447	7,447
Subtotal	5,071,982	11,068,491	1,374,403	17,514,876
Financial assets at FVOCI				
Equity securities	159,851	37	490,578	650,466
Debt securities	13,499,102	22,744,543	–	36,243,645
Subtotal	13,658,953	22,744,580	490,578	36,894,111
Derivative assets used for hedging	–	1,723	–	1,723
Merchant banking account assets	–	4,637,824	–	4,637,824
Total	18,730,935	38,452,618	1,864,981	59,048,534
Financial liabilities				
Financial liabilities at FVTPL				
Derivative liabilities held for trading	979	6,002,522	38,565	6,042,066
Securities borrowed	452,426	–	–	452,426
Financial liabilities designated at FVTPL	–	234,718	–	234,718
Subtotal	453,405	6,237,240	38,565	6,729,210
Derivative liabilities used for hedging	–	363,174	27,805	390,979
Total	453,405	6,600,414	66,370	7,120,189

(* 1) The Group recognizes transfers between levels at the beginning of reporting period when events or changes in circumstances causing the transfers between levels have occurred.

<December 31, 2022>

Classification	Levels of the fair value hierarchy (*1)			Total
	Level 1	Level 2	Level 3	
Financial assets				
Financial assets at FVTPL				
Equity securities	17,943	–	24,945	42,888
Debt securities	2,148,533	5,459,986	944,860	8,553,379
Derivative assets held for trading	213	9,814,434	37,107	9,851,754
Private convertible bonds	–	–	7,394	7,394
Subtotal	2,166,689	15,274,420	1,014,306	18,455,415
Financial assets at FVOCI				
Equity securities	252,039	34	558,432	810,505
Debt securities	10,351,695	21,798,381	–	32,150,076
Subtotal	10,603,734	21,798,415	558,432	32,960,581
Derivative assets used for hedging	–	8,062	–	8,062
Merchant banking account assets	–	4,631,361	–	4,631,361
Total	12,770,423	41,712,258	1,572,738	56,055,419
Financial liabilities				
Financial liabilities at FVTPL				
Derivative liabilities held for trading	1,176	10,681,705	59,696	10,742,577
Securities borrowed	323,661	–	–	323,661
Financial liabilities designated at FVTPL	–	162,069	–	162,069
Subtotal	324,837	10,843,774	59,696	11,228,307
Derivative liabilities used for hedging	–	485,580	30,838	516,418
Total	324,837	11,329,354	90,534	11,744,725

(*1) The Group recognizes transfers between levels at the beginning of each reporting period when events or changes in circumstances causing the transfers between levels have occurred.

The Group classifies and discloses the fair value of the financial instruments into the following three hierarchies:

- a. Level 1: The fair values are based on quoted prices (unadjusted) in active markets.
- b. Level 2: The fair values are based on techniques using observable market data.
- c. Level 3: The fair values are based on techniques using unobservable inputs.

Details of fair value, valuation technique and inputs used to develop those measurements classified into Level 2 assets and liabilities that are measured at fair value as of December 31, 2023 and 2022, are as follows
(Korean won in millions):

◁December 31, 2023>

Classification	Fair value	Valuation techniques	Inputs
Financial assets			
Financial assets at FVTPL			
Debt securities	5,139,180	Net asset value and DCF model	Underlying asset prices, such as bonds, stock, etc., and Discount rate
Derivative assets held for trading	5,929,311	Black-Scholes model, Black model, DCF model and Hull-White 1 factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility and Yield curve of each currency
Subtotal	11,068,491		
Financial assets at FVOCI			
Equity securities	37	Market value	Stock price
Debt securities	22,744,543	DCF model	Discount rate
Subtotal	22,744,580		
Derivative assets used for hedging	1,723	Hull-White 1 factor model and DCF model	Exchange rate, Swap yield curve, Swaption volatility and Yield curve of each currency
Merchant banking account assets	4,637,824	DCF model	Discount rate
Total	38,452,618		
Financial liabilities			
Financial liabilities at FVTPL			
Derivative liabilities held for trading	6,002,522	Black-Scholes model, Black model, DCF model and Hull-White 1 factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility and Yield curve of each currency
Financial liabilities designated at FVTPL	234,718	Hull-White 1 factor model	Swap yield curve and Swaption volatility
Subtotal	6,237,240		
Derivative liabilities used for hedging	363,174	Hull-White 1 factor model and DCF model	Exchange rate, Swap yield curve, Swaption volatility and Yield curve of each currency
Total	6,600,414		

<December 31, 2022>

Classification	Fair value	Valuation techniques	Inputs
Financial assets			
Financial assets at FVTPL			
Debt securities	5,459,986	Net asset value and DCF model	Underlying asset prices, such as bonds, stock, etc., and Discount rate
Derivative assets held for trading	9,814,434	Black-Scholes model, Black model, DCF model and Hull-White 1 factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility and Yield curve of each currency
Subtotal	15,274,420		
Financial assets at FVOCI			
Equity securities	34	Market value	Stock price
Debt securities	21,798,381	DCF model	Discount rate
Subtotal	21,798,415		
Derivative assets used for hedging	8,062	Hull-White 1 factor model	Exchange rate, Swap yield curve, Swaption volatility and Yield curve of each currency
Merchant banking account assets	4,631,361	DCF model	Discount rate
Total	41,712,258		
Financial liabilities			
Financial liabilities at FVTPL			
Derivative liabilities held for trading	10,681,705	Black-Scholes model, Black model, DCF model and Hull-White 1 factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility and Yield curve of each currency
Financial liabilities designated at FVTPL	162,069	Hull-White 1 factor model	Swap yield curve and Swaption volatility
Subtotal	10,843,774		
Derivative liabilities used for hedging	485,580	Hull-White 1 factor model and DCF model	Exchange rate, Swap yield curve, Swaption volatility and Yield curve of each currency
Total	11,329,354		

Details of fair value, valuation techniques, inputs used to develop those measurements and quantitative information about the significant unobservable inputs classified into Level 3 assets and liabilities that are measured at fair value as of December 31, 2023 and 2022, are as follows (Korean won in millions):

<December 31, 2023>

Classification	Fair value	Valuation techniques	Inputs	Significant unobservable inputs	Range (%)	The effect of changes in unobservable inputs on fair value
Financial assets						
Financial assets at FVTPL						
Equity securities	24,995	Third-party transaction	—	—	—	—
Debt securities	1,305,400	Dividend discount model, Binomial model and Net asset value	Discount rate, Liquidating value, Underlying asset price and Volatility of underlying assets	Discount rate	5.15	Negative
				Liquidating value		Positive
				Volatility of underlying assets	26.03~29.98	Positive
Derivative assets held for trading	36,561	Hull-White 2 factor model and Monte-Carlo Method	Discount rate, Stock index, Swap yield curve, Volatility of underlying assets, and Correlation within evaluation model and Exchange rate	Discount rate	23.68	Negative
				Correlation between Interest rate swap rates, Correlation between Exchange rate and Stock index and Correlation between Stock index and Stock index	-24.00~78.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Volatility of underlying assets	—	Positive
Private convertible bonds	7,447	Acquisition cost	—	—	—	—
Subtotal	1,374,403					
Financial assets at FVOCI						
Equity securities	490,578	Free cash flow to equity model, DCF model, Comparable Company Analysis and Net asset value	Growth rate, Discount rate, Liquidating value and Underlying asset price	Growth rate	—	Positive
				Discount rate	9.25~19.90	Negative
				Liquidating value	—	Positive
Total	1,864,981					
Financial liabilities						
Financial liabilities at FVTPL						
Derivative liabilities held for trading	38,565	Hull-White 2 factor model and Monte-Carlo Method	Stock index, Swap yield curve, Volatility of underlying assets and Correlation within evaluation model and Exchange rate	Correlation between Interest rate swap rates, Correlation between Exchange rate and Stock index, Correlation between Stock index and Stock index	-24.00~78.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Volatility of underlying assets	—	Positive
Derivative liabilities used for hedging	27,805	Hull-White 2 factor model	Swap yield curve, Swaption volatility and Correlation within evaluation model and Exchange rate	Correlation between Interest rate swap rates	60.00~97.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
Total	66,370					

<December 31, 2022>

Classification	Fair value	Valuation techniques	Inputs	Significant unobservable inputs	Range (%)	The effect of changes in unobservable inputs on fair value
Financial assets						
Financial assets at FVTPL						
Equity securities	24,945	Dividend discount model and DCF model	Growth rate, Discount rate and Liquidating value	Growth rate	–	Positive
				Discount rate	5.19~11.95	Negative
				Liquidating value	–	Positive
Debt securities	944,860	Dividend discount model, Binomial model and Net asset value	Discount rate, Liquidating value, Underlying asset price and Volatility of underlying assets	Discount rate	5.68~6.88	Negative
				Liquidating value	–	Positive
				Volatility of underlying assets	23.56~35.06	Positive
Derivative assets held for trading	37,107	Binomial model and Hull-White 2 factor model	Stock index, Swap yield curve, Volatility of underlying assets and Correlation within evaluation model and Exchange rate	Correlation between Interest rate swap rates, Correlation between Exchange rate and Stock index, Correlation between Stock index and Stock index	–25.30~74.90	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Volatility of underlying assets	21.83~31.73	Positive
Private convertible bonds	7,394	Acquisition cost	–	–	–	–
Subtotal	1,014,306					
Financial assets at FVOCI						
Equity securities	558,432	Binomial model, Free cash flow to equity model, DCF model, Comparable Company Analysis and Net asset value	Growth rate, Discount rate, Liquidating value, Underlying asset price and Volatility of underlying assets	Growth rate	–	Positive
				Discount rate	9.08~19.14	Negative
				Liquidating value	–	Positive
				Volatility of underlying assets	21.98~46.53	Positive
Total	1,572,738					
Financial liabilities						
Financial liabilities at FVTPL						
Derivative liabilities held for trading	59,695	Binomial model and Hull-White 2 factor model	Stock index, Swap yield curve, Volatility of underlying assets and Correlation within evaluation model and Exchange rate	Correlation between Interest rate swap rates, Correlation between Exchange rate and Stock index, Correlation between Stock index and Stock index	–5.90~73.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Volatility of underlying assets	21.83~46.53	Positive
Derivative liabilities used for hedging	30,838	Hull-White 2 factor model	Swap yield curve, Swaption volatility and Correlation within evaluation model and Exchange rate	Correlation between KRW Interest rate swap rates and Correlation between USD Interest rate swap rates,	39.00~96.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
Total	90,533					

4-2 Changes in the fair value hierarchy of financial instruments categorized as Level 3

Changes in the fair value of financial assets and liabilities categorized as Level 3 that are measured at fair value in the consolidated financial statements for the years ended December 31, 2023 and 2022, are as follows
(Korean won in millions):

<2023>

Classification		Financial assets at FVTPL			Financial assets at FVOCI		Net derivative instruments	
		Equity securities	Debt securities	Private convertible bonds	Equity securities	Debt securities	Held for trading	Designated as hedging
Beginning balance		24,945	944,860	7,394	558,432	—	(22,588)	(30,838)
Transfers between fair value hierarchies (*)		(1,000)	—	—	—	—	—	—
Total profit or loss	Profit or loss	808	17,740	135	—	—	(7,867)	3,033
	Other comprehensive income	—	—	—	(22,509)	—	—	—
Purchases and issues		1,648	459,585	1,000	238	—	491	—
Sales and settlements		(1,406)	(116,785)	(1,082)	(45,583)	—	27,960	—
Ending balance		24,995	1,305,400	7,447	490,578	—	(2,004)	(27,805)

(*) Changes in the availability of observable market data for the financial instrument have resulted in a transfer between fair value hierarchies.

<2022>

Classification		Financial assets at FVTPL			Financial assets at FVOCI		Net derivative instruments	
		Equity securities	Debt securities	Private convertible bonds	Equity securities	Debt securities	Held for trading	Designated as hedging
Beginning balance		14,900	611,871	170,873	584,998	—	(695)	(9,124)
Total profit or loss	Profit or loss	608	(11,451)	1,550	—	—	(22,790)	(21,714)
	Other comprehensive income	—	—	—	(26,024)	—	—	—
Purchases and issues		10,027	453,969	7,337	—	—	897	—
Sales and settlements		(590)	(109,529)	(172,366)	(542)	—	—	—
Ending balance		24,945	944,860	7,394	558,432	—	(22,588)	(30,838)

4-3 Amount recognized in profit or loss from changes in the fair value hierarchy of financial instruments categorized as Level 3

The amount recognized in profit or loss from changes in the fair value hierarchy of financial instruments categorized as Level 3 for the years ended December 31, 2023 and 2022, is recorded in the consolidated financial statements as follows (Korean won in millions):

<2023>

Classification	Total gains or losses recognized in profit or loss	Profit or loss recognized related to financial instruments held at the end of reporting period
Gain on financial instruments at FVTPL	10,816	7,276
Gain related to derivative instruments used for hedging	3,033	3,033
Total	13,849	10,309

<2022>

Classification	Total gains or losses recognized in profit or loss	Profit or loss recognized related to financial instruments held at the end of reporting period
Loss on financial instruments at FVTPL	(32,083)	(25,872)
Loss related to derivative instruments used for hedging	(21,714)	(21,714)
Total	(53,797)	(47,586)

4-4 Transfers between fair value hierarchies

There is a transfer out of Level 3 of the fair value hierarchy for the years ended December 31, 2023 and 2022.

Classification	2023	2022
Transfer out of Level 3 to Level 1	(1,000)	—

4-5 Sensitivity analysis

Sensitivity analysis of the financial instruments classified as Level 3 from the changes in significant unobservable inputs as of December 31, 2023 and 2022, is as follows. The impact of fair value fluctuations on profit or loss or other comprehensive income is divided into favorable and unfavorable changes. The financial instruments classified as Level 3 which were excluded from the sensitivity analysis as it is practically impossible, amount to ₩1,343,558 million and ₩1,046,318 million as of December 31, 2023 and 2022, respectively. (Korean won in millions):

<December 31, 2023>

Classification	Favorable changes	Unfavorable changes
Financial assets		
Financial assets at FVTPL		
Debt securities (*3)	1,419	(1,331)
Derivative assets held for trading (*1)	118	(164)
Subtotal	1,537	(1,495)
Financial assets at FVOCI		
Equity securities (*2)	19,012	(10,743)
Total	20,549	(12,238)
Financial liabilities		
Derivative liabilities held for trading (*1)	122	(98)
Derivative liabilities used for hedging (*1)	9	(23)
Total	131	(121)

(*1) Unfavorable and favorable changes in fair value are calculated by increasing/decreasing 10% of 1) correlation between rates of Interest Rate Swap (IRS) of KRW, 2) correlation between rates of IRS of KRW and USD, 3) correlation between stock index and individual stock and 4) correlation between exchange rates of KRW/USD and stock index.

(*2) Changes in fair value of equity securities are calculated by increasing/decreasing growth rate (0.0% ~ 1.0%) and discount rate, which are main unobservable inputs.

(*3) Changes in fair value of debt securities are calculated by increasing/decreasing discount rate (-1.0% ~ 1.0%), which is the main unobservable input. It is impossible in practice to assess sensitivity based on the changes in input

variables of beneficiary securities, but favorable or unfavorable changes in fair value, only limited to real estate, are calculated by changing discount rate of lease cash flow (−1.0%~1.0%) and growth rate of selling price of real estate (−1.0%~1.0%).

<December 31, 2022>

Classification	Favorable changes	Unfavorable changes
Financial assets		
Financial assets at FVTPL		
Equity securities (*2)	21	(11)
Debt securities (*3)	1,093	(1,047)
Derivative assets held for trading (*1)	86	(72)
Subtotal	1,200	(1,130)
Financial assets at FVOCI		
Equity securities (*2)	18,160	(10,963)
Total	19,360	(12,093)
Financial liabilities		
Derivative liabilities held for trading (*1)	152	(169)
Derivative liabilities used for hedging (*1)	6	(1)
Total	158	(170)

(*1) Unfavorable and favorable changes in fair value are calculated by increasing/decreasing 10% of 1) correlation between rates of Interest Rate Swap (IRS) of KRW, 2) correlation between rates of IRS of KRW and USD, 3) correlation between stock index and individual stock and 4) correlation between exchange rates of KRW/USD and stock index.

(*2) Changes in fair value of equity securities are calculated by increasing/decreasing growth rate (0.0%~1.0%) and discount rate, which are main unobservable inputs.

(*3) Changes in fair value of debt securities are calculated by increasing/decreasing discount rate (−1.0%~1.0%), which is the main unobservable input. It is impossible in practice to assess sensitivity based on the changes in input variables of beneficiary securities, but favorable or unfavorable changes in fair value, only limited to real estate, are calculated by changing discount rate of lease cash flow (−1.0%~1.0%) and growth rate of selling price of real estate (−1.0%~1.0%).

4-6 Financial assets and liabilities which are not measured at fair value

Fair value hierarchy of financial assets and liabilities at amortized cost as of December 31, 2023 and 2022, is as follows (Korean won in millions):

〈December 31, 2023〉

Classification	Levels of the fair value hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets				
Cash and due from banks	1,742,359	28,821,920	–	30,564,279
Securities at amortized cost	3,196,264	32,286,860	–	35,483,124
Loans	–	–	347,002,271	347,002,271
Other financial assets	–	–	18,078,504	18,078,504
Total	4,938,623	61,108,780	365,080,775	431,128,178
Financial liabilities				
Deposits	–	47,761,947	321,968,921	369,730,868
Borrowings	–	934,111	21,031,181	21,965,292
Debentures	–	26,379,079	–	26,379,079
Other financial liabilities (*)	–	–	35,200,562	35,200,562
Merchant banking account liabilities	–	–	4,154,697	4,154,697
Total	–	75,075,137	382,355,361	457,430,498

(*) Lease liabilities are included in Other financial liabilities.

〈December 31, 2022〉

Classification	Levels of the fair value hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets				
Cash and due from banks	1,903,972	39,183,885	–	41,087,857
Securities at amortized cost	3,579,863	32,007,819	–	35,587,682
Loans	–	–	327,015,538	327,015,538
Other financial assets	–	–	13,107,936	13,107,936
Total	5,483,835	71,191,704	340,123,474	416,799,013
Financial liabilities				
Deposits	–	55,603,695	303,901,950	359,505,645
Borrowings	–	970,661	21,135,577	22,106,238
Debentures	–	25,675,257	–	25,675,257
Other financial liabilities (*)	–	–	29,939,149	29,939,149
Merchant banking account liabilities	–	–	3,667,273	3,667,273
Total	–	82,249,613	358,643,949	440,893,562

(*) Lease liabilities are included in Other financial liabilities.

Details of fair value, valuation technique and inputs used to develop those measurements classified into Level 2 financial assets and liabilities disclosed, but not measured at fair value as of December 31, 2023 and 2022, are as follows (Korean won in millions):

<December 31, 2023>

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Cash and due from banks	28,821,920	DCF model	Discount rate
Securities at amortized cost	32,286,860	DCF model	Discount rate
Total	61,108,780		
Financial liabilities			
Deposits	47,761,947	DCF model	Discount rate
Borrowings	934,111	DCF model	Discount rate
Debentures	26,379,079	DCF model	Discount rate
Total	75,075,137		

<December 31, 2022>

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Cash and due from banks	39,183,885	DCF model	Discount rate
Securities at amortized cost	32,007,819	DCF model	Discount rate
Total	71,191,704		
Financial liabilities			
Deposits	55,603,695	DCF model	Discount rate
Borrowings	970,661	DCF model	Discount rate
Debentures	25,675,257	DCF model	Discount rate
Total	82,249,613		

Details of fair value, valuation technique and inputs used to develop those measurements classified into Level 3 financial assets and liabilities disclosed, but not measured at fair value as of December 31, 2023 and 2022, are as follows (Korean won in millions):

〈December 31, 2023〉

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Loans	347,002,271	DCF model	Credit spread, other spread and early redemption rate
Other financial assets	18,078,504	DCF model	Discount rate
Total	365,080,775		
Financial liabilities			
Deposits	321,968,921	DCF model	Other spread and early redemption rate
Borrowings	21,031,181	DCF model	Other spread
Other financial liabilities (*1)	35,200,562	DCF model	Discount rate
Merchant banking account liabilities	4,154,697	(*2)	
Total	382,355,361		

(*1) Lease liabilities are included in Other financial liabilities.

(*2) The carrying amount is considered fair value without applying the DCF model because it is derived from various transactions and has relatively short or indefinite maturities.

〈December 31, 2022〉

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Loans	327,015,538	DCF model	Credit spread, other spread and early redemption rate
Other financial assets	13,107,936	DCF model	Discount rate
Total	340,123,474		
Financial liabilities			
Deposits	303,901,950	DCF model	Other spread and early redemption rate
Borrowings	21,135,577	DCF model	Other spread
Other financial liabilities (*1)	29,939,149	DCF model	Discount rate
Merchant banking account liabilities	3,667,273	(*2)	
Total	358,643,949		

(*1) Lease liabilities are included in Other financial liabilities.

(*2) The carrying amount is considered fair value without applying the DCF model because it is derived from various transactions and has relatively short or indefinite maturities.

4-7 Gain and loss on deferred Day 1

Changes in gain (loss) on deferred Day 1 for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Beginning balance	(2,130)	(548)
Amount of new accrual	(3,080)	(1,734)
Amounts recognized as current profit or loss	3,749	152
Ending balance	(1,461)	(2,130)

4-8 Financial instruments transfer transaction

4-8-1 Bonds sold under repurchase agreements

As of December 31, 2023 and 2022, details of financial instruments that did not meet the derecognition requirements due to the sale of securities held by the Group on condition of repurchase at a fixed price during the bonds sold under repurchase agreements are as follows (Korean won in millions):

Classification	December 31, 2023		December 31, 2022	
	Book value	Fair value	Book value	Fair value
Transferred asset sets				
Financial assets at FVOCI	532,760	532,760	46	46
Financial assets at amortized cost	801,692	770,167	484,066	443,630
Total	1,334,452	1,302,927	484,112	443,676
Related liabilities				
Bonds sold under repurchase agreements	1,140,937	1,119,671	487,732	436,183

4-8-2 Loaned securities

When lending securities held by the Group, ownership of the securities is transferred; however, the securities would be returned at the end of the rental period. Therefore, the Group continues to recognize the entire loaned securities as it retains most of the risks and rewards of the securities. Details of loaned securities as of the end of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023		December 31, 2022	
	Book value(*)	Fair value	Book value(*)	Fair value
Financial assets at FVTPL	9,936	9,936	412,492	412,492
Financial assets at FVOCI	1,051,270	1,051,270	1,925,345	1,925,345
Financial assets at amortized cost	194,312	188,457	416,386	395,502
Total	1,255,518	1,249,663	2,754,223	2,733,339

(*) Carrying amount is before allowances for doubtful debts.

4-8-3 Asset-backed securitization

The Group's consolidated structured companies issued asset-backed securities by securitizing their securities and loans. The Group retains the contractual right to receive cash flows from the financial assets, but the received cash flows are effectively transferred to the holder of asset-backed securities. In addition, the Group bears related risks through purchase agreements or credit exposures.

As of the end of December 31, 2023 and 2022, details of financial instruments that were transferred, but not derecognized in relation to asset-backed securitization transactions by the Group, are as follows (Korean won in millions):

Classification		December 31, 2023	December 31, 2022
		Book value(*)	Book value(*)
Transferred asset sets	Financial assets at FVTPL	40,000	20,000
	Loans at amortized cost	2,482,508	1,291,332
	Total	2,522,508	1,311,332
Related liabilities	Asset-backed securitization borrowing	2,537,828	1,321,944

(*) Carrying amount is before allowances for doubtful debts.

5. Fair value of financial assets and liabilities

Book values and fair values of financial assets and liabilities as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023		December 31, 2022	
	Book value	Fair value	Book value	Fair value
Financial assets				
Cash and due from banks	30,564,279	30,564,279	41,087,857	41,087,857
Financial assets at FVTPL	17,514,876	17,514,876	18,455,415	18,455,415
Financial assets at FVOCI	36,894,111	36,894,111	32,960,581	32,960,581
Securities at amortized cost	36,337,949	35,483,124	37,583,487	35,587,682
Loans	347,246,910	347,002,271	330,186,341	327,015,538
Derivative assets used for hedging	1,723	1,723	8,062	8,062
Other financial assets	18,078,742	18,078,504	13,108,142	13,107,936
Merchant banking account assets	4,637,824	4,637,824	4,631,361	4,631,361
Total	491,276,414	490,176,712	478,021,246	472,854,432
Financial liabilities				
Financial liabilities at FVTPL	6,729,210	6,729,210	11,228,307	11,228,307
Deposits	369,749,453	369,730,868	359,858,481	359,505,645
Borrowings	22,033,914	21,965,292	22,256,597	22,106,238
Debentures	26,542,179	26,379,079	26,233,339	25,675,257
Derivative liabilities used for hedging	390,979	390,979	516,418	516,418
Other financial liabilities (*)	35,200,562	35,200,562	29,939,149	29,939,149
Merchant banking account liabilities	4,154,697	4,154,697	3,667,273	3,667,273
Total	464,800,994	464,550,687	453,699,564	452,638,287

(*) Lease liabilities are included in Other financial liabilities.

The following standards are applied in measuring the fair value of financial instruments:

- a. Loans: Expected cash flows, current market interest rates and discount rates, including borrowers' credit risks are factors to calculate the fair value of loans. For lines of credit available for deposit and withdrawal from time to time and loans with a short-term maturity (less than three months), it is assumed that the carrying amounts approximate their fair value.
- b. Securities at amortized cost: The fair value of securities at amortized cost is as stated by the market, broker or by credible sources. If none of the information from these entities is usable, quoted market price of financial instruments with similar credit rating, maturity and return on investment is used to estimate the fair value.
- c. Deposits: For deposits without an explicit maturity period, including deposits with no interests, deposits that have a short-term maturity (less than three months) and deposits with a floating-rate readjustment period of less than three months, it is assumed that the carrying amounts approximate their fair value. The estimated fair value of fixed interest-bearing deposits is based on discounted future cash flows using interest rates for new financial liability with similar time to maturity.
- d. Borrowings: For borrowings that have a short-term maturity (less than three months) and borrowings with floating-rate readjustment period of less than three months, it is assumed that the carrying amounts approximate their fair value. The estimated fair value of fixed interest-bearing borrowings is based on discounted future cash flows using interest rates for new financial liability with similar time to maturity.
- e. Debentures: For debentures issued, the fair values are determined based on quoted market prices in active market. For those issued where quoted market prices in active market are not available, a DCF model is used based on a current interest rate yield curve appropriate for the remaining term to maturity and credit spreads.

6. Categories of financial assets and financial liabilities

6-1 The Group categorizes its financial assets as of December 31, 2023 and 2022, as follows (Korean won in millions):

<December 31, 2023>

Classification	Financial assets at FVTPL	Financial assets at FVOCI	Financial assets at amortized cost	Derivatives used for hedging	Total
Cash and due from banks	—	—	30,564,279	—	30,564,279
Financial assets at FVTPL	17,514,876	—	—	—	17,514,876
Financial assets at FVOCI	—	36,894,111	—	—	36,894,111
Securities at amortized cost	—	—	36,337,949	—	36,337,949
Loans	—	—	347,246,910	—	347,246,910
Derivative assets used for hedging	—	—	—	1,723	1,723
Other financial assets	—	—	18,078,742	—	18,078,742
Merchant banking account assets	4,637,824	—	—	—	4,637,824
Total	22,152,700	36,894,111	432,227,880	1,723	491,276,414

<December 31, 2022>

Classification	Financial assets at FVTPL	Financial assets at FVOCI	Financial assets at amortized cost	Derivatives used for hedging	Total
Cash and due from banks	—	—	41,087,857	—	41,087,857
Financial assets at FVTPL	18,455,415	—	—	—	18,455,415
Financial assets at FVOCI	—	32,960,581	—	—	32,960,581
Securities at amortized cost	—	—	37,583,487	—	37,583,487
Loans	—	—	330,186,341	—	330,186,341
Derivative assets used for hedging	—	—	—	8,062	8,062
Other financial assets	—	—	13,108,142	—	13,108,142
Merchant banking account assets	4,631,361	—	—	—	4,631,361
Total	23,086,776	32,960,581	421,965,827	8,062	478,021,246

6-2 The Group categorizes its financial liabilities as of December 31, 2023 and 2022, as follows (Korean won in millions):

〈December 31, 2023〉

Classification	Financial liabilities at FVTPL	Financial liabilities designated as measured at FVTPL	Financial liabilities at amortized cost	Derivatives used for hedging	Total
Financial liabilities at FVTPL	6,494,492	234,718	–	–	6,729,210
Deposits	–	–	369,749,453	–	369,749,453
Borrowings	–	–	22,033,914	–	22,033,914
Debentures	–	–	26,542,179	–	26,542,179
Derivative liabilities used for hedging	–	–	–	390,979	390,979
Other financial liabilities (*)	–	–	35,200,562	–	35,200,562
Merchant banking account liabilities	–	–	4,154,697	–	4,154,697
Total	6,494,492	234,718	457,680,805	390,979	464,800,994

(*) Lease liabilities are included in Other financial liabilities.

〈December 31, 2022〉

Classification	Financial liabilities at FVTPL	Financial liabilities designated as measured at FVTPL	Financial liabilities at amortized cost	Derivatives used for hedging	Total
Financial liabilities at FVTPL	11,066,238	162,069	–	–	11,228,307
Deposits	–	–	359,858,481	–	359,858,481
Borrowings	–	–	22,256,597	–	22,256,597
Debentures	–	–	26,233,339	–	26,233,339
Derivative liabilities used for hedging	–	–	–	516,418	516,418
Other financial liabilities (*)	–	–	29,939,149	–	29,939,149
Merchant banking account liabilities	–	–	3,667,273	–	3,667,273
Total	11,066,238	162,069	441,954,839	516,418	453,699,564

(*) Lease liabilities are included in Other financial liabilities.

7. Offsetting financial assets and liabilities

The Group engages in master netting agreements with counterparties through International Swaps and Derivatives Association or similar agreements in relation to over-the-counter derivatives and spot exchange transactions. Under this agreement, in the event of the counterparty's bankruptcy etc., the transaction with the counterparty will be terminated. Upon termination, the amounts to be paid or received by each party are offset and paid or received. Repurchase agreements of trade and securities lending and borrowing of securities have been made by offsetting arrangement, which is similar to the arrangement for derivatives.

In the case of uncollected domestic exchange bonds and unpaid domestic exchange obligations between banks, as the Group holds the rights of setoff and settles in net amounts, the net amounts are presented in the consolidated statements of financial position. Other financial instruments include bonds and debts related to securities traded in the market, which are presented in net amounts in the consolidated statements of financial position as there is a legally enforceable right of setoff and intention to settle on a net basis.

7-1 Financial assets offset, the executable master netting agreement and financial assets subject to a similar arrangement as of December 31, 2023 and 2022, are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	Gross amounts of recognized financial assets	Gross amounts of financial liabilities offset	Net amounts of financial assets presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	5,980,051	—	5,980,051	(4,635,080)	(361,195)	983,776
Loaned securities	1,255,518	—	1,255,518	(1,249,663)	—	5,855
Bonds purchased under repurchase agreements	13,754,130	—	13,754,130	(13,752,531)	—	1,599
Spot exchange that has not been received or settled	10,461,073	—	10,461,073	(10,455,094)	—	5,979
Uncollected domestic exchange bonds	40,928,696	36,735,331	4,193,365	—	—	4,193,365
Other accounts receivable	18,529	16,279	2,250	—	—	2,250
Total	72,397,997	36,751,610	35,646,387	(30,092,368)	(361,195)	5,192,824

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the consolidated statements of financial position as they do not meet the criteria for offsetting.

◁December 31, 2022▷

Classification	Gross amounts of recognized financial assets	Gross amounts of financial liabilities offset	Net amounts of financial assets presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	9,874,147	—	9,874,147	(7,438,461)	(1,480,302)	955,384
Loaned securities	2,754,223	—	2,754,223	(2,754,223)	—	—
Bonds purchased under repurchase agreements	11,776,664	—	11,776,664	(11,776,664)	—	—
Spot exchange that has not been received or settled	5,961,620	—	5,961,620	(5,960,185)	—	1,435
Uncollected domestic exchange bonds	40,665,026	36,441,676	4,223,350	—	—	4,223,350
Other accounts receivable	4,419	4,419	—	—	—	—
Total	71,036,099	36,446,095	34,590,004	(27,929,533)	(1,480,302)	5,180,169

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the consolidated statements of financial position as they do not meet the criteria for offsetting.

7-2 Financial liabilities offset, the executable master netting agreement and financial liabilities subject to a similar arrangement as of December 31, 2023 and 2022, are as follows (Korean won in millions):

〈December 31, 2023〉

Classification	Gross amounts of recognized financial liabilities	Gross amounts of financial assets offset	Net amounts of financial liabilities presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	6,433,045	–	6,433,045	(5,044,895)	(251,013)	1,137,137
Borrowed securities	452,426	–	452,426	(452,426)	–	–
Bonds sold under repurchase agreements	1,140,937	–	1,140,937	(1,140,937)	–	–
Spot exchange that has not been received or settled	10,463,019	–	10,463,019	(10,455,077)	–	7,942
Unpaid domestic exchange obligations	43,807,222	36,735,331	7,071,891	–	–	7,071,891
Other accounts payable	17,993	16,279	1,714	–	–	1,714
Total	62,314,642	36,751,610	25,563,032	(17,093,335)	(251,013)	8,218,684

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the consolidated statements of financial position as they do not meet the criteria for offsetting.

〈December 31, 2022〉

Classification	Gross amounts of recognized financial liabilities	Gross amounts of financial assets offset	Net amounts of financial liabilities presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	11,258,995	–	11,258,995	(9,022,247)	(59,116)	2,177,632
Borrowed securities	323,661	–	323,661	(323,661)	–	–
Bonds sold under repurchase agreements	487,732	–	487,732	(487,732)	–	–
Spot exchange that has not been received or settled	5,961,729	–	5,961,729	(5,960,245)	–	1,484
Unpaid domestic exchange obligations	41,945,503	36,441,676	5,503,827	–	–	5,503,827
Other accounts payable	9,592	4,419	5,173	–	–	5,173
Total	59,987,212	36,446,095	23,541,117	(15,793,885)	(59,116)	7,688,116

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the consolidated statements of financial position as they do not meet the criteria for offsetting.

8. Risk management

The Group is exposed to credit risk, liquidity risk, market risk and various operating risks. The objectives of risk management are to pursue economic benefits by managing the associated risk in the changing financial environment and to utilize capital efficiently.

The basic principles of risk management are as follows:

- a. Minimize the rapid fluctuation in profit by balancing the risks and the income.
- b. Maximize long-term shareholder value.
- c. Comply with procedures to ensure operating activities are confined to allowable risk limits.
- d. Examine the type and size of risk along with the changes in potential economic value of portfolios and establish risk management strategy in order to utilize assets and distribute capital efficiently.

The basic policies in order to realize the basic principles of risk management are as follows:

- a. Set and comply with allowable limits for each risk type.
- b. Establish an appropriate balance between income and associated risk.
- c. When a conflict between income and associated risk exists, the Group pursues income while complying with the allowable risk limits.
- d. Prioritize the distribution of risk in order to avoid risk concentration in certain areas.
- e. Analyze the effect of various market fluctuations on parts or the entire portfolio on a regular basis.
- f. Separate risk management segments, operational segments and other segments, which deal with trade confirmations and payments in order to maintain independence.

8-1 Strategy and procedure of risk management

8-1-1 Operation of and setting risk limits

The Group established and operates a limit management system to maintain the appropriate level of risk relative to the equity capital held. The Risk Management Committee approves total risk limits and limits by types of risks, taking into account of capital, business plans, risk management regulations and institutional changes within the risk level that the Group can manage. The Risk Management Operation Committee sets up and allocates other operational limits (e.g., by organization, product, investment and loss) to comply with allowable limits for each type of risk, approved by the Risk Management Committee, and periodically checks the status of limit management.

8-1-2 Risk measurement and management

The Group prepares the appropriate risk measurement methods considering the nature of risks and measures them by the types of risks. Risk measurement and evaluation results are regularly reviewed and reported to the Risk Management Committee, Risk Management Operation Committee and management. Risk measurement and evaluation results are also used for daily business management activities, such as establishment of business plan and management strategy.

8-1-3 Operation of risk management information system

In order to provide advanced risk management in a rapidly changing financial environment that meets the new Bank for International Settlements ("BIS") standards, the Group has established and adopted a credit risk-weighted assets ("RWA") calculation system based on Basel 3 regulation since March 2021. The market/operational RWA is calculated based on Basel 3 standard model since January 2023.

8-1-4 Operation of crisis management system

The Group operates a crisis management system that can respond effectively to the crisis caused by drastic changes in the internal and external management environment. The Group operates an early warning system in order to respond to the drastic changes in the financial market in a consistent and systematic manner. In the event of an anomaly, the holding company declares the level of crisis at the group level and the Group analyzes the impact on the portfolio in accordance with the step-by-step response plan and carries out the specific countermeasures.

8-2 Organization and structure of risk management

The risk management organization consists of the Risk Management Committee, the Risk Management Operation Committee under the Risk Management Committee within the board of directors, the risk management officer and the organization in charge of risk management, which are the top decision-making bodies for the risk management. The organization in charge of risk management, independent from operating segment, manages risk limits and risk management policies.

8-2-1 Risk Management Committee

The Risk Management Committee regularly holds meeting once every quarter and resolves the establishment and management of allowable limits for risks, establishment and changes in risk management policies and reviews the results of the management of allowable risk limits and suitability tests of risk management system.

8-2-2 Risk Management Operation Committee

The Risk Management Operation Committee is responsible for setting and allocating specific operational limits for compliance with the allowable limits for each type of risk as resolved by the Risk Management Committee, adjusting the internal capital limit between business units within the same risk type and carrying out risk management policies and strategies set by the Risk

Management Committee, including preliminary deliberations on the agenda items.

8-2-3 Organization in charge of risk management

The Risk Management Group is composed of Comprehensive Risk Management team, Credit Risk Management team and Credit Supervision team. The Risk Management Group is independent of operating and investment segments and manages the execution of risk management policies. The Comprehensive Risk Management team oversees the market, interest rate, liquidity, operational risk and middle office and supports the Risk Management Committee and the Risk Management Operation Committee. The Credit Risk Management team oversees credit risk and credit concentration risk. The Credit Supervision team oversees the loans and early warning system.

8-3 Credit risk

Credit risk is a risk incurred when the Group faces a loss because its customers or counterparties fail to discharge their contractual obligations. Credit risk arises from on-balance and off-balance accounts, including loans, derivatives, securities, financial guarantee agreements and other guarantees.

8-3-1 Management of credit risk

8-3-1-1 Loans

8-3-1-1-1 Measurement of credit risk

To determine the possibility of bankruptcy for its customers or counterparties, the Group uses various methods comprehensively. Risks pertaining to the retail sector compared to those pertaining to the corporate sector are relatively easy to predict, but cyclical and seasonal factors may influence the outcomes.

The frequency of impairment loss in the overall retail sector is relatively high, but in terms of individual cases, the loss rate is lower than in the corporate sector.

Based on these differences, the Group manages each sector differently in terms of credit rating, pricing and subsequent management.

As for the business customers, the branch managers and credit rating team carry out the credit risk assessment by using a detailed valuation model depending on the size and the nature of the industry. The corporate financial valuation model is further subdivided based on the characteristics of the loans and is a combination of statistical and expert valuation models. Also, the Loan Review team of the credit risk management regularly performs the subsequent reviews in order to establish adequacy of the credit grading. As for the retail sector, a credit scoring system is used to compute the credit scores of the borrower. The system includes an application scoring model, which is used for the application of loans and a behavioral scoring model, which has been used after handling of the loans.

Expected loss is calculated using the expected default rate based upon the historical default rate and the estimated loss rate gives a rise to the default rate from a collection of historical information. A measured expected loss is reflected on the client's interest rate and allowances when applying for or renewing a loan. Unexpected loss, which takes into account the allowance for potential volatility in the actual loss compared to the expected loss, is measured using K-function of the Basel 3 internal rating method. The value measured is used as a credit risk reference value in capital allocation and is reflected as a part of the unexpected loss when calculating interest rates.

8-3-1-1-2 Management of credit risk

8-3-1-1-2-1 Management process

Both retail and corporate sectors are developing and operating a credit risk management system appropriately designed for each sector. The Credit Risk Management Committee and the Credit Rating team measure and manage credit risks for the corporate sector; Credit Risk Management Committee and Personal Loans Committee measure and manage credit risks for the retail sector.

The Group manages as well as controls the credit risk by setting the limits on the amount of risk willing to accept for individual counterparties and for geographical and industry concentration, and by monitoring exposures relating to such limits. The Group reviews on a monthly basis in accordance with the economic conditions and industry characteristics and examines the adequacy of the limits on a quarterly basis. The Group continuously examines the adequacy of credit rating models for retail and corporate sectors, Probability of Default (PD), Loss Given Default (LGD) and Exposure At Default (EAD) and manages data related to the estimation of the credit rating models, PD, LGD and EAD.

8-3-1-1-2-2 Credit limits management and capital allocation

The Group annually performs a comprehensive analysis on economic conditions and changes in the economic environment in order to appropriately assess the credit quality of financial assets by setting credit limits on same entities, industries, countries and financial instruments. In addition, for the unexpected loss management, the Group regularly sets, distributes and checks for the compliance maintenance of internal capital limits according to the corporate and household sectors and the size of clients through the risk management system.

8-3-1-1-2-3 Risk monitoring and early warning system

The Group measures and manages the risk indicators, such as delinquency rate, roll-rate and vintage. Also, in order to assess the credit quality of the assets, the Group operates an early warning system and regularly examines companies whose credit rating is likely to degrade.

8-3-1-1-2-4 Credit rating system

In order to separately evaluate the characteristics of clients in the corporate sector, the Group operates a detailed valuation model based on the external and non-external audit and is in the process of continuing the stability of the corporate credit rating system through the subsequent examinations and performance improvements. The Group operates a detailed valuation model based on the credit rating model and the activity rating model for the household sector in accordance with the client's characteristics. The Group improves the efficiency of the model through the subsequent examinations and performance improvements. Credit rating on new clients as well as an automatic renewal and adjustments to the credit limits are managed by the household and Small Office and Home Office ("SOHO") credit extension system.

8-3-1-1-2-5 Examination of credit

For a large amount of credit line, after the approval of credit extension, the Group regularly examines the borrower's credit status and the adequacy of the borrower's credit rating as in part of the subsequent management process. In addition, the Group significantly focuses on industries by increasing credit risks based on the analysis of the risk indicators and examines the sample for smaller credit extensions.

8-3-1-1-2-6 Risk mitigation policy

The Group obtains the collateral for the granted loans in order to reduce risks. Guidelines are implemented regarding the acceptability of types of collateral and valuation parameters. The main types of the collateral obtained are as follows:

- a. Residential properties in relation to mortgage loans
- b. Business assets, such as equipments, plants and real estate properties
- c. Financial instruments, such as deposits, debt and equity securities

8-3-1-2 Debt securities

The Group trades the debt securities above the investment-grade status level in order to manage the credit risks and manage the exposure of credit ratings to maintain credit quality of the assets.

8-3-1-3 Derivative instruments

The credit risk arising from the derivative instruments is managed based on the net position and maintained under a strict control limit. The degree of credit risk exposure is measured based on the positive fair values of derivative instruments. The Group manages the exposure as a part of the unused commitment of loans.

8-3-2 Significant increase in credit risk

The Group measures the ECL for debt instruments at amortized cost or FVOCI in three stages as described below:

8-3-2-1 Stage 1: 12-month ECL

For financial assets whose credit risk has not increased significantly since initial recognition, ECLs that result from default events that are possible within 12 months after the reporting date are recognized.

8-3-2-2 Stage 2: Lifetime ECL

For financial assets whose credit risk has increased significantly, but not impaired, since initial recognition, ECLs that result from all possible default events over the expected life of the financial instrument are recognized.

8-3-2-3 Stage 3: Lifetime ECL

A financial asset is credit impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Lifetime ECL is recognized for credit-impaired financial assets and interest income is recognized using the EIR on amortized cost.

The Group assesses at each reporting date whether the credit risk increases significantly compared to that of initial recognition, using internal and external credit rating information, early warning system and number of days pastdue.

8-3-2-4 Occurrence of default

The Group considers that a default has occurred for financial assets on the following situations:

- a. When receivables are sold despite an economic loss.
- b. When receivables have decreased due to adjustments resulting in an exemption of principal, interest or related fees or delayed payments.
- c. When the borrower has been declared bankrupt or has declared bankruptcy or has taken other similar measures to delay or avoid repayments.

8-3-2-5 Method for determining whether a financial asset is credit impaired

A financial asset is deemed impaired if, and only if, there is objective evidence of impairment as a result of one or more events, which have occurred after the initial recognition of the item (an incurred 'loss event') and that loss event (or events) has an impact on the estimated future cash flows, such as changes in arrears or economic conditions, which correlate with defaults, delinquency in interest for more than 90 days, credit information management rules and damages incurred due to poor exposure.

8-3-3 Measurement of ECL

ECL is measured at the probability-weighted amounts of the present value of all cash shortfalls over the expected life of the financial instrument. A cash shortfall is the difference between the cash flows that are due to an entity in accordance with the contract and the cash flows that the Group expects to receive.

However, the Group adjusts historical data, such as credit loss experience, on the basis of current observable data to reflect the effects of the current conditions and its forecasts of future conditions that did not affect the period on which the historical data is based and to remove the effects of the conditions in the historical period that are not relevant to the future contractual cash flows. Also, the Group measures ECL using the macroeconomic factors, such as the growth rate, interest rate and stock indices. The methodology for future economic forecasts is regularly reviewed.

If the credit risk on financial instruments, for which lifetime ECLs have been recognized, subsequently improves so that the requirement for recognizing lifetime ECL is no longer met, the loss allowance should be measured at an amount equal to 12-month ECL.

8-3-4 Write-off policy

Financial assets are written off when an entity has no reasonable expectations of recovering the contractual cash flows on a financial asset in its entirety or a portion thereof. Generally, financial assets are written off when it is determined that the Group is not able to generate sufficient cash flows to make repayments. However, financial assets written off can be recovered by the Group.

8-3-5 The maximum exposure to credit risk

The maximum exposure to credit risk as of December 31, 2023 and 2022, is as follows. The following table shows the maximum exposure to credit risk before the effect of mitigation through credit enhancement and collateral agreements and reflects the impairment losses and offsetting. Equity securities in financial assets at FVTPL and financial assets at FVOCI are excluded (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
On-balance-sheet items		
Due from banks	28,821,920	39,183,885
Financial assets at FVTPL		
Debt securities	11,442,332	8,553,379
Derivative assets held for trading	5,965,872	9,851,754
Private convertible bonds	7,447	7,394
Subtotal	17,415,651	18,412,527
Financial assets at FVOCI		
Securities at amortized cost	36,337,949	37,583,487
Derivative assets used for hedging	1,723	8,062
Loans	347,246,910	330,186,341
Other financial assets	18,078,742	13,108,142
Merchant banking account assets	4,637,824	4,631,361
Total	488,784,364	475,263,881
Off-balance-sheet items		
Financial guarantee contracts	498,156	447,724
Payment guarantee	23,535,495	20,644,157
Commitments	109,725,839	101,383,405
Merchant banking account-commitment	770,000	620,000
Total	134,529,490	123,095,286

8-3-6 Details of effects of credit risk mitigation by collateral and other credit enhancements

The financial effects related to credit risk mitigated by collateral and other credit enhancements as of December 31, 2023 and 2022, are as follows

(Korean won in millions):

<December 31, 2023>

Classification	Impaired loan	
	Individual assessment	Collective assessment
Guarantees	16,627	311,605
Deposits	—	18,575
Real estates	213,417	338,703
Securities	—	1
Others	5,847	6,395
Total	235,891	675,279

<December 31, 2022>

Classification	Impaired loan	
	Individual assessment	Collective assessment
Guarantees	13,949	159,755
Deposits	92	11,930
Real estates	157,237	217,226
Others	5,694	5,283
Total	176,972	394,194

8-3-6-1 The amount of financial assets for which loss allowance is not recognized due to sufficient collaterals is ₩1,125,587 million and ₩1,288,560 million as of December 31, 2023 and 2022, respectively.

8-3-6-2 There is no change in the collateral policy of the Group.

8-3-7 Credit risk exposure

8-3-7-1 Loans

As of December 31, 2023 and 2022, gross carrying amounts of loans by internal credit rating in accordance with the loss allowance measurement method are as follows (Korean won in millions):

<December 31, 2023>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired loans	Credit-impaired loans	
Household loans				
Grade 1	94,064,000	15,117,696	—	109,181,696
Grade 2	14,459,631	7,085,140	—	21,544,771
Grade 3	196,069	550,945	452,308	1,199,322
Subtotal	108,719,700	22,753,781	452,308	131,925,789
Corporate loans				
Grade 1	124,593,684	3,608,602	—	128,202,286
Grade 2	70,465,513	13,259,903	—	83,725,416
Grade 3	580,691	3,596,942	877,162	5,054,795
Subtotal	195,639,888	20,465,447	877,162	216,982,497
Total	304,359,588	43,219,228	1,329,470	348,908,286

<December 31, 2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired loans	Credit-impaired loans	
Household loans				
Grade 1	100,581,728	18,267,978	—	118,849,706
Grade 2	6,808,923	6,154,047	—	12,962,970
Grade 3	150,384	235,570	342,308	728,262
Subtotal	107,541,035	24,657,595	342,308	132,540,938
Corporate loans				
Grade 1	122,350,304	3,063,130	—	125,413,434
Grade 2	59,477,536	10,398,130	3,258	69,878,924
Grade 3	78,389	3,031,102	553,833	3,663,324
Subtotal	181,906,229	16,492,362	557,091	198,955,682
Total	289,447,264	41,149,957	899,399	331,496,620

Net deferred origination fees and costs are not reflected in the gross carrying amounts above.

The Group categorizes loans based on the nature of the borrowers as follows:

<December 31, 2023>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.66% of PD	Less than or equal to 1.18% of PD	Less than or equal to 7.25% of PD
Grade 2	From 0.66% to 30.53% of PD	From 1.18% to 13.87% of PD	From 7.25% to 41.35% of PD
Grade 3	From 30.53% to 100% of PD	From 13.87% to 100% of PD	From 41.35% to 100% of PD

<December 31, 2022>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.49% of PD	Less than or equal to 0.58% of PD	Less than or equal to 2.85% of PD
Grade 2	From 0.49% to 24.93% of PD	From 0.58% to 12.83% of PD	From 2.85% to 27.43% of PD
Grade 3	From 24.93% to 100% of PD	From 12.83% to 100% of PD	From 27.43% to 100% of PD

8-3-7-2 Off-balance-sheet items

As of December 31, 2023 and 2022, exposures of off-balance-sheet items by internal credit rating in accordance with the loss allowance measurement method are as follows (Korean won in millions):

<December 31, 2023>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired off-balance-sheet items	Credit-impaired off-balance-sheet items	
Financial guarantee contracts				
Grade 1	345,454	63,332	–	408,786
Grade 2	61,864	25,362	–	87,226
Grade 3	1,859	285	–	2,144
Subtotal	409,177	88,979	–	498,156
Payment guarantees				
Grade 1	16,929,448	1,584,647	–	18,514,095
Grade 2	3,627,124	714,993	–	4,342,117
Grade 3	187,867	450,006	41,410	679,283
Subtotal	20,744,439	2,749,646	41,410	23,535,495
Commitments				
Grade 1	87,217,921	4,023,271	–	91,241,192
Grade 2	14,144,413	3,585,035	–	17,729,448
Grade 3	229,028	472,761	53,410	755,199
Subtotal	101,591,362	8,081,067	53,410	109,725,839
Merchant banking account-commitment				
Grade 1	770,000	–	–	770,000
Grade 2	–	–	–	–
Grade 3	–	–	–	–
Subtotal	770,000	–	–	770,000
Total	123,514,978	10,919,692	94,820	134,529,490

<December 31, 2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired off-balance-sheet items	Credit-impaired off-balance-sheet items	
Financial guarantee contracts				
Grade 1	300,233	60,616	–	360,849
Grade 2	59,553	22,248	–	81,801
Grade 3	–	5,070	4	5,074
Subtotal	359,786	87,934	4	447,724
Payment guarantees				
Grade 1	16,321,420	579,746	–	16,901,166
Grade 2	2,956,691	404,440	–	3,361,131
Grade 3	8	359,682	22,170	381,860
Subtotal	19,278,119	1,343,868	22,170	20,644,157
Commitments				
Grade 1	82,254,638	4,969,974	–	87,224,612
Grade 2	11,438,109	2,424,262	–	13,862,371
Grade 3	1,270	259,611	35,541	296,422
Subtotal	93,694,017	7,653,847	35,541	101,383,405
Merchant banking account-commitment				
Grade 1	620,000	–	–	620,000
Grade 2	–	–	–	–
Grade 3	–	–	–	–
Subtotal	620,000	–	–	620,000
Total	113,951,922	9,085,649	57,715	123,095,286

The Group categorizes off-balance-sheet items based on the nature of the borrowers as follows:

<December 31, 2023>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.66% of PD	Less than or equal to 1.18% of PD	Less than or equal to 7.25% of PD
Grade 2	From 0.66% to 30.53% of PD	From 1.18% to 13.87% of PD	From 7.25% to 41.35% of PD
Grade 3	From 30.53% to 100% of PD	From 13.87% to 100% of PD	From 41.35% to 100% of PD

<December 31, 2022>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.49% of PD	Less than or equal to 0.58% of PD	Less than or equal to 2.85% of PD
Grade 2	From 0.49% to 24.93% of PD	From 0.58% to 12.83% of PD	From 2.85% to 27.43% of PD
Grade 3	From 24.93% to 100% of PD	From 12.83% to 100% of PD	From 27.43% to 100% of PD

8-3-7-3 Debt securities

As of December 31, 2023 and 2022, gross carrying amounts of debt securities by internal credit rating in accordance with the loss allowance measurement method are as follows (Korean won in millions):

<December 31, 2023>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit- impaired debt	Credit-impaired debt	
Securities at amortized cost				
Grade 1	36,240,105	—	—	36,240,105
Grade 2	93,080	—	—	93,080
Grade 3	—	24,425	—	24,425
Subtotal	36,333,185	24,425	—	36,357,610
Financial assets at FVOCI				
Grade 1	36,243,645	—	—	36,243,645
Grade 2	—	—	—	—
Grade 3	—	—	—	—
Subtotal	36,243,645	—	—	36,243,645
Total	72,576,830	24,425	—	72,601,255

<December 31, 2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit- impaired debt	Credit-impaired debt	
Securities at amortized cost				
Grade 1	37,502,676	–	–	37,502,676
Grade 2	71,783	–	–	71,783
Grade 3	–	24,507	67,337	91,844
Subtotal	37,574,459	24,507	67,337	37,666,303
Financial assets at FVOCI				
Grade 1	32,135,336	–	–	32,135,336
Grade 2	14,740	–	–	14,740
Grade 3	–	–	–	–
Subtotal	32,150,076	–	–	32,150,076
Total	69,724,535	24,507	67,337	69,816,379

The credit ratings of debt securities based on the internal rating used by the Group and the credit ratings by external credit rating agencies are as follows:

Classification	Internal credit rating	Domestic rating agencies	Overseas rating agencies	
			Moody's	Fitch
Grade 1	A1 ~ A7	AAA ~ BBB	Aaa ~ Ba2	AAA ~ BB
Grade 2	B1 ~ B6	BBB- ~ BB-	Ba3 ~ B3	BB- ~ B-
Grade 3	C1 ~ C3	B+ ~ CCC	Caa1 ~ C	CCC+ ~ C

8-3-8 Credit risk concentration

8-3-8-1 Credit risk concentration in each major industry as of December 31, 2023 and 2022, is as follows (Korean won in millions):

<December 31, 2023>

Classification	Industry	Amounts	Ratio (%)
On-balance-sheet items			
Due from banks	Financial services	28,821,920	100.0
Financial assets at FVTPL	Financial services	11,556,003	66.4
	Manufacturing	674,647	3.9
	Public administration	4,810,962	27.6
	Construction	7,296	0.0
	Wholesale and retail	36,644	0.2
	Others	330,099	1.9
	Subtotal	17,415,651	100.0
Financial assets at FVOCI	Financial services	18,249,308	50.4
	Manufacturing	364,789	1.0
	Public administration	12,766,025	35.2
	Construction	46,547	0.1
	Wholesale and retail	49,809	0.1
	Others	4,767,167	13.2
	Subtotal	36,243,645	100.0
Securities at amortized cost	Financial services	19,145,017	52.7
	Manufacturing	202,760	0.6
	Public administration	8,882,940	24.4
	Construction	7,270	0.0
	Wholesale and retail	40,000	0.1
	Others	8,079,623	22.2
	Subtotal	36,357,610	100.0
Derivative assets used for hedging	Financial services	1,723	100.0
Loans	Household loans	131,925,789	37.8
	Corporate loans		
	Financial services	26,871,701	7.7
	Manufacturing	55,111,216	15.8
	Construction	6,372,585	1.8
	Wholesale and retail	24,890,572	7.1
	Real estate rental	49,585,167	14.2
	Others	54,151,256	15.5

Classification	Industry	Amounts	Ratio (%)
	Net deferred origination fees and costs	383,467	0.1
	Subtotal	349,291,753	100.0
Merchant banking account assets	Financial services	328,298	7.1
	Real estate rental	1,562,989	33.7
	Others	2,746,537	59.2
	Subtotal	4,637,824	100.0
Total		472,770,126	
Off-balance-sheet items			
Financial guarantee contracts	Financial services	110,699	22.2
	Manufacturing	151,852	30.5
	Construction	9,718	2.0
	Wholesale and retail	73,629	14.8
	Real estate rental	105	0.0
	Others	152,153	30.5
	Subtotal	498,156	100.0
Payment guarantees	Household	281,636	1.2
	Financial services	2,038,770	8.7
	Manufacturing	13,478,737	57.3
	Construction	1,495,516	6.3
	Wholesale and retail	3,846,168	16.3
	Real estate rental	190,164	0.8
	Others	2,204,504	9.4
	Subtotal	23,535,495	100.0
Commitments	Household commitments	30,212,375	27.5
	Corporate commitments		
	Financial services	12,719,603	11.6
	Manufacturing	32,960,995	30.1
	Construction	2,237,093	2.0
	Wholesale and retail	10,058,610	9.2
	Real estate rental	5,040,664	4.6
	Others	16,496,499	15.0
	Subtotal	109,725,839	100.0
Merchant banking account – commitment	Financial services	460,000	59.7
	Manufacturing	50,000	6.5
	Wholesale and retail	110,000	14.3
	Real estate rental	100,000	13.0
	Others	50,000	6.5
	Subtotal	770,000	100.0
Total		134,529,490	

<December 31, 2022>

Classification	Industry	Amounts	Ratio (%)
On-balance-sheet items			
Due from banks	Financial services	39,183,885	100.0
Financial assets at FVTPL	Financial services	14,814,380	80.5
	Manufacturing	1,038,021	5.6
	Public administration	2,196,846	11.9
	Construction	21,425	0.1
	Wholesale and retail	54,384	0.3
	Others	287,471	1.6
	Subtotal	18,412,527	100.0
Financial assets at FVOCI	Financial services	15,191,734	47.3
	Manufacturing	193,539	0.6
	Public administration	13,374,970	41.6
	Construction	55,070	0.2
	Wholesale and retail	117,243	0.4
	Others	3,217,520	9.9
	Subtotal	32,150,076	100.0
Securities at amortized cost	Financial services	19,193,033	51.0
	Manufacturing	234,257	0.6
	Public administration	9,639,915	25.6
	Construction	43,495	0.1
	Wholesale and retail	40,000	0.1
	Others	8,515,603	22.6
	Subtotal	37,666,303	100.0
Derivative assets used for hedging	Financial services	8,062	100.0
Loans	Household loans	132,540,938	39.9
	Corporate loans		
	Financial services	23,746,610	7.2
	Manufacturing	51,273,420	15.5
	Construction	5,381,239	1.6
	Wholesale and retail	23,518,055	7.1
	Real estate rental	44,535,435	13.4
	Others	50,500,923	15.2
	Net deferred origination fees and costs	356,338	0.1
	Subtotal	331,852,958	100.0
Merchant banking account assets	Financial services	817,368	17.6
	Real estate rental	1,007,544	21.8
	Others	2,806,449	60.6
	Subtotal	4,631,361	100.0
Total		463,905,172	

Classification	Industry	Amounts	Ratio (%)
Off-balance-sheet items			
Financial guarantee contracts	Financial services	45,120	10.1
	Manufacturing	219,522	49.0
	Construction	6,643	1.5
	Wholesale and retail	58,813	13.1
	Real estate rental	1,014	0.2
	Others	116,612	26.1
	Subtotal	447,724	100.0
Payment guarantees	Household	353,026	1.7
	Financial services	2,232,794	10.8
	Manufacturing	11,165,598	54.1
	Construction	1,600,908	7.8
	Wholesale and retail	3,664,550	17.8
	Real estate rental	168,777	0.8
	Others	1,458,504	7.0
	Subtotal	20,644,157	100.0
Commitments	Household commitments	28,780,642	28.4
	Corporate commitments		
	Financial services	10,972,913	10.8
	Manufacturing	29,530,082	29.1
	Construction	2,001,940	2.0
	Wholesale and retail	9,501,969	9.4
	Real estate rental	3,736,829	3.7
	Others	16,859,030	16.6
	Subtotal	101,383,405	100.0
Merchant banking account – commitment	Financial services	310,000	50.0
	Manufacturing	50,000	8.1
	Wholesale and retail	110,000	17.7
	Real estate rental	100,000	16.1
	Others	50,000	8.1
	Subtotal	620,000	100.0
Total		123,095,286	

8-3-8-2 Credit risk concentration in each major country as of December 31, 2023 and 2022, is as follows (Korean won in millions, ratio in %):

<December 31, 2023>

Classification	Country	Amounts	Ratio (%)
On-balance-sheet items			
Due from banks	Korea	17,784,561	61.7
	China	878,347	3.0
	United States	4,605,337	16.0
	Japan	2,142,890	7.4
	Singapore	11,882	0.1
	Hong Kong	42,823	0.1
	Others	3,356,080	11.7
	Subtotal	28,821,920	100.0
Financial assets at FVTPL	Korea	15,967,783	91.7
	China	57,206	0.3
	United States	130,627	0.8
	Japan	174	0.0
	Hong Kong	4,173	0.0
	Others	1,255,688	7.2
	Subtotal	17,415,651	100.0
Financial assets at FVOCI	Korea	30,646,121	84.6
	China	1,626,027	4.5
	United States	1,540,546	4.2
	Hong Kong	38,707	0.1
	Others	2,392,244	6.6
	Subtotal	36,243,645	100.0
Securities at amortized cost	Korea	33,992,715	93.5
	China	24,425	0.1
	United States	5,783	0.0
	Others	2,334,687	6.4
	Subtotal	36,357,610	100.0
Derivative assets used for hedging	Korea	1,723	100.0
Loans	Korea	317,736,784	91.0
	China	5,663,134	1.6
	United States	5,330,932	1.5
	Japan	1,647,939	0.5
	Hong Kong	2,122,689	0.6
	Others	16,406,808	4.7
	Net deferred origination fees and costs	383,467	0.1

Classification	Country	Amounts	Ratio (%)
	Subtotal	349,291,753	100.0
Merchant banking account assets	Korea	4,637,824	100.0
Total		472,770,126	
Off-balance-sheet items			
Financial guarantee contracts	Korea	498,156	100.0
Payment guarantees	Korea	18,300,061	77.8
	China	1,548,486	6.6
	United States	302,543	1.3
	Japan	27,751	0.1
	Others	3,356,654	14.2
	Subtotal	23,535,495	100.0
Commitments	Korea	105,143,471	95.8
	China	460,060	0.4
	United States	936,329	0.9
	Japan	145,058	0.1
	Others	3,040,921	2.8
	Subtotal	109,725,839	100.0
Merchant banking account – commitment	Korea	770,000	100.0
Total		134,529,490	

<December 31, 2022>

Classification	Country	Amounts	Ratio (%)
On-balance-sheet items			
Due from banks	Korea	25,196,900	64.3
	China	1,200,457	3.1
	United States	7,348,690	18.8
	Japan	872,357	2.2
	Singapore	27,443	0.1
	Hong Kong	87,291	0.2
	Others	4,450,747	11.3
	Subtotal	39,183,885	100.0
Financial assets at FVTPL	Korea	15,584,056	84.6
	China	666,650	3.6
	United States	70,691	0.4
	Japan	570	0.0
	Hong Kong	59,826	0.3
	Others	2,030,734	11.1
	Subtotal	18,412,527	100.0
Financial assets at FVOCI	Korea	27,628,411	85.9
	China	1,977,918	6.2
	United States	617,790	1.9
	Hong Kong	46,266	0.1
	Others	1,879,691	5.9
	Subtotal	32,150,076	100.0
Securities at amortized cost	Korea	35,125,996	93.3
	China	128,242	0.3
	United States	5,958	0.0
	Others	2,406,107	6.4
	Subtotal	37,666,303	100.0
Derivative assets used for hedging	Korea	8,062	100.0
Loans	Korea	301,245,204	90.8
	China	6,047,574	1.8
	United States	4,638,052	1.4
	Japan	1,855,875	0.6
	Hong Kong	2,536,360	0.8
	Others	15,173,555	4.5
	Net deferred origination fees and costs	356,338	0.1
	Subtotal	331,852,958	100.0
Merchant banking account assets	Korea	4,631,361	100.0
Total		463,905,172	

Classification	Country	Amounts	Ratio (%)
Off-balance-sheet items			
Financial guarantee contracts	Korea	447,724	100.0
Payment guarantees	Korea	15,270,693	74.0
	China	1,831,845	8.9
	United States	213,716	1.0
	Japan	23,331	0.1
	Others	3,304,572	16.0
	Subtotal	20,644,157	100.0
Commitments	Korea	96,532,123	95.2
	China	782,903	0.8
	United States	652,870	0.6
	Japan	199,854	0.2
	Others	3,215,655	3.2
	Subtotal	101,383,405	100.0
Merchant banking account – commitment	Korea	620,000	100.0
Total		123,095,286	

8-4 Liquidity risk

The Group defines liquidity risk as the possibility of incurring losses due to a temporary shortage in funds caused by a maturity mismatch or an unexpected capital outlay leading to rise in interest or sale of assets at a price below normal price.

8-4-1 Measurement of liquidity risk

The Group maintains a limit management indicator to measure the liquidity coverage ratio, liquidity ratio in foreign currency, net stable funding ratio, foreign currency maturity mismatch ratio and long-term access to financing ratio in foreign currency in accordance with the guidelines and standards of the Financial Supervisory Service. In addition, the Group maintains a monitoring indicator to measure unbalance of funding etc., to manage the liquidity risk and manage early warning indicators in order to identify worsening trends in the early stage to respond in a timely manner.

8-4-2 Management of liquidity risk

At an early stage, the Group identifies factors affecting liquidity in order to manage liquidity risks and has achieved an adequate level of liquidity via performing systematic management.

The Group has the following basic principles for liquidity risk management:

- a. Set and comply with liquidity risk limits and coordinate and manage early warning indicators to identify liquidity risk at an early stage.
- b. Regularly execute an analysis of stress tests and prepare an emergency procurement plan in case of liquidity.
- c. Focus on maintaining a diversified portfolio in order to avoid excessive concentrations of risks.
- d. Evaluate and manage the effect of a large amount of money, which is loaned out, invested or procured on liquidity risks.

In order to manage liquidity risk, the Group builds internal control systems for each department. In order to comply with liquidity ratios and the maturity mismatch ratio set by the Financial Supervisory Service, the Comprehensive Risk Management department conducts daily monitoring. Liquidity risk status is reported to the Risk Management Operation Committee on a monthly basis and to the Risk Management Committee on a quarterly basis.

In order to maintain the liquidity risk management indicators to stay within acceptable limits, the Treasury department recommends the necessary measures in relation to the procurement and operation of the assets and liabilities traded in the capital market. In addition, stages of emergency planning have been established in order to respond to liquidity emergencies. The Planning and Management department has established a portfolio management strategy based on the internal and external liquidity risk management requirements and the outlook of the procurement and operating markets.

8-4-3 Analysis of contract maturity

8-4-3-1 Analysis criteria

The details of the remaining contractual maturities of financial liabilities are analyzed by the earliest maturity date when the Group would be required to pay, based on the undiscounted cash outflows of the Group's financial liabilities.

In addition, financial liabilities at FVTPL and depository liabilities (payment on demand) are shown at fair value in the immediate payment column. All derivatives used for hedging are presented based on the net cash flows, as all products are paid in the net amount. A contract maturity exists in payment guarantees that correspond to financial guarantees such as bond issuance and loan security provided by the Group, loan commitment and other credit granting. However, payment must be made immediately once the counterparty requests payment. As such, they are included in the immediate payment column.

8-4-3-2 The remaining contractual maturities of financial liabilities and off-balance-sheet items

The remaining contractual maturities of financial liabilities and off-balance-sheet items as of December 31, 2023 and 2022, are as follows (Korean won in millions):

<December 31, 2023>

Classification	On demand	Less than 1 month	1 month ~ 3 months	3 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
On-balance-sheet items							
Financial liabilities							
Financial liabilities at FVTPL	6,494,492	–	–	–	–	422,346	6,916,838
Deposits	149,780,476	35,914,296	50,697,264	123,140,490	16,334,448	1,429,565	377,296,539
Borrowings	3,469,782	4,844,665	3,151,970	5,241,274	4,929,718	585,492	22,222,901
Debentures	126	1,121,368	1,542,286	8,509,438	13,754,227	2,207,777	27,135,222
Derivative assets used for hedging	–	7,644	3,749	18,275	51,876	(81,179)	365
Other financial liabilities	7,841,208	22,129,253	1,483	22,485	36,394	1,825	30,032,648
Merchant banking account liabilities	1,536,529	2,618,168	–	–	–	–	4,154,697
Total	169,122,613	66,635,394	55,396,752	136,931,962	35,106,663	4,565,826	467,759,210
Off-balance-sheet items							
Finance guarantee contracts	498,156	–	–	–	–	–	498,156
Payment guarantee	23,535,495	–	–	–	–	–	23,535,495
Commitment	109,725,839	–	–	–	–	–	109,725,839
Merchant banking account – commitment	770,000	–	–	–	–	–	770,000
Total	134,529,490	–	–	–	–	–	134,529,490

<December 31, 2022>

Classification	On demand	Less than 1 month	1 month ~ 3 months	3 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
On-balance-sheet items							
Financial liabilities							
Financial liabilities at FVTPL	11,059,332	–	–	–	–	272,236	11,331,568
Deposits	155,430,882	34,916,185	42,648,480	115,044,070	16,453,108	1,473,256	365,965,981
Borrowings	4,025,607	6,361,471	3,143,744	4,393,807	4,053,189	518,789	22,496,607
Debentures	139	960,000	2,835,568	10,712,756	9,535,633	2,579,021	26,623,117
Derivative assets used for hedging	–	9,543	1,709	33,127	63,048	(20,827)	86,600
Other financial liabilities	9,838,792	16,447,155	1,524	22,964	38,264	1,811	26,350,510
Merchant banking account liabilities	1,122,469	2,544,804	–	–	–	–	3,667,273
Total	181,477,221	61,239,158	48,631,025	130,206,724	30,143,242	4,824,286	456,521,656
Off-balance-sheet items							
Finance guarantee contracts	447,724	–	–	–	–	–	447,724
Payment guarantee	20,644,157	–	–	–	–	–	20,644,157
Commitment	101,383,405	–	–	–	–	–	101,383,405
Merchant banking account – commitment	620,000	–	–	–	–	–	620,000
Total	123,095,286	–	–	–	–	–	123,095,286

Assets available for use to execute unused loan commitments after redeeming all financial liabilities are cash and bank deposits, debt securities, equity securities and loans. In addition, the Group is able to cope with unexpected cash outflows through the sale of securities and additional sources of funding, such as asset-backed securitization.

8-5 Market risk

Market risk is a risk incurred in assets and liabilities subject to management based on the changes in market prices, such as interest rate, stocks, foreign exchange.

8-5-1 Market risk management

The purpose of market risk management is to manage the loss of assets and liabilities incurred due to changes in market variables, such as interest rates, foreign exchanges and equity prices to remain within the allowable limits in order to ensure profitability and stability.

8-5-2 Market risk management targets

Market risk management targets include marketable securities, foreign currency net positions, derivatives and other assets and liabilities with embedded market risks. The Group classifies exposures to market risk into either trading or non-trading positions and manages each of those portfolios separately.

8-5-3 Management of market risk related to trading position

8-5-3-1 Trading account classification

A trading account is a concept of a trading book and refers to a set of products held for short-term trading purposes etc., and there should be no legal restrictions on selling or completely hedging products that are to be classified as trading accounts. Specifically, the following financial products are classified as trading accounts, excluding products that cannot be classified as trading accounts and bank account products.

- a. Financial instruments for the short-term trading
- b. Financial instruments for the purpose of hedging risks
- c. Financial instruments for the purpose of acquiring arbitrages
- d. From A to C, hedge of other goods held for any of the purposes
- e. Financial instruments included in the Correlation Trading Portfolio ("CTP")
- f. Financial instruments that generate credit or stock net selling positions in bank accounts (*)

- g Underwriting arrangements for securities that are actually expected to be purchased on the settlement date
- (*) Credit or stock net selling positions in bank accounts: Bank account positions whose current value rises as issuer credit spreads of debt instruments expand or share prices fall

8-5-3-2 Management of the trading position limits

The Risk Management Committee divides capital, annual loss and exposure limit in relation to market risks of the trading position by business unit (division) annually. Within the given limit, the Risk Management Operation Committee further subdivides the limits by business units (divisions) and desks. The Risk Management Group provides information necessary for deliberation and review by the committee, reports trading limits and measures risks.

The middle office performs mark-to-market measures and monitors trade violations and compliance with the limits. The middle office establishes and complies with trading policy regulations, measures market risk for trading positions and checks daily compliance within the acceptable limits for each risk. The office also conducts daily inspections of changes in the management exposure, compliance with the limit, post verification and crisis analysis and reports the results to the management team every day.

8-5-3-3 Market Risk Measurement (Basel 3 Standard)

The basic calculation method for managing and measuring the exposure of trading account products to market risks is calculated by dividing them into sensitivity risk, default risk and residual risk. Sensitivity risk refers to the risk of loss due to changes in market risk factors, such as exchange rates, interest rates and stock prices. The risk of default refers to the risk of loss due to bankruptcy of bonds or stock issuers.

8-5-3-4 Amount of risk by risk type

The details of regulated capital by market risk group as of December 31, 2023, are as follows (Korean won in millions):

Classification	Risk type	Amount
Sensitivity Risk Charge	General interest rate risk	48,762
	Credit spread risk ("CSR") (non-securitizations)	31,929
	CSR (securitizations (non-CTP))	—
	CSR (securitization (CTP))	—
	Equity risk	24,666
	Foreign exchange risk	407,954
	Commodity risk	—
Default Risk Charge	Non-securitizations	36,230
	Securitizations (Non-CTP)	—
	Securitizations (CTP)	—
Residual Risk Add-On ("RRAO")	RRAO (*)	614
Total		550,155

(*) RRAO: Residual Risk Add-On

8-5-4 Management of market risk related to non-trading position

8-5-4-1 Interest rate risk

Interest rate risk of non-trading position is a risk of losses in financial assets and liabilities with interest rates due to adverse changes in interest rates and is incurred when maturity structure does not match interest rate setting cycle of the related assets and liabilities. The Group manages the interest rate risks of non-trading position in order to maintain the stability of net interest income and net asset value based on changes in interest rates. The following is subject to the Group's management of interest rate risk:

- a. Financial assets with interest rates, such as bank deposits, debt securities and loans
- b. Financial liabilities with interest rates, such as depository liabilities, borrowings and debentures
- c. Financial derivatives, such as interest rate swaps

Interest rate risk is calculated using the gap between interest-sensitive assets and liabilities. The interest rate risks measure the interest rate gap ratio as a primary indicator, while Δ EVE, Δ NII ratio and duration are used as secondary indicators. The Risk Management Committee and the Risk Management Operation Committee establish the interest rate risk limits on an annual basis; the compliance thereof is reported to Risk Management Operation Committee as well as the Risk Management Committee on a monthly and quarterly basis, respectively.

Economic value of equity ("△EVE") refers to changes in the economic value of equity capital, indicating the effect of adverse changes in interest rates on the present value of assets, liabilities and others. As of December 31, 2023 and 2022, the Group's △EVE is as follows (Korean won in millions):

Classification	December 31, 2023	Average	Minimum	Maximal	December 31, 2022
△EVE	1,883,644	2,240,459	1,883,644	2,427,370	2,106,981

△EVE calculates the maximum value compared to the default scenario by applying six interest rates (parallel rise, parallel fall, short-term fall and long-term rise, short-term rise and long-term fall, short-term rise and short-term fall) after generating cash flows for interest-sensitive assets and liabilities under the Supervision of Banking Business Appendix 9-1.

8-5-4-2 Equity price risk

Equity price risk is a risk incurred when the fair value of equities results in changes in the level of related revenue and capital. Fluctuation in equity reflects the sensitivity of each equity. Effects on capital due to the fluctuation in equity price risk as of December 31, 2023, are as follows (Korean won in millions):

Classification	20% decline	10% decline	10% rise	20% rise
Equity price risk	(60,317)	(30,158)	30,158	60,317

8-5-5 Currency risk concentration

Currency risk is a risk incurred when the value of a financial instrument or future cash flows fluctuates due to the changes in foreign exchange rates. Currency risk arises from the financial instruments expressed in currencies other than the functional currency. Currency risk does not arise from the financial instruments expressed in the functional currency or in non-monetary items. In order to establish the stop loss and limits, the Group manages the foreign exchange net exposure amount of the trading and non-trading positions by each currency.

Significant foreign currency assets and liabilities denominated in Korean won as of December 31, 2023 and 2022, are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	USD	JPY	EUR	CNY	IDR	Others	Total
Assets							
Cash and due from bank	13,462,151	2,852,534	640,913	849,322	188,125	1,004,784	18,997,829
Financial assets at FVTPL	139,221	316	12,535	50,749	25,804	104,702	333,327
Financial assets at FVOCI	3,698,272	—	41,406	1,651,409	300,718	1,655,728	7,347,533
Securities at amortized cost	1,752,567	—	122,681	18,496	186,307	1,591,848	3,671,899
Loans	24,136,661	1,586,366	3,920,339	7,035,033	1,557,384	5,526,201	43,761,984
Others	5,066,110	366,976	764,095	1,179,742	48,660	775,702	8,201,285
Total	48,254,982	4,806,192	5,501,969	10,784,751	2,306,998	10,658,965	82,313,857
Liabilities							
Financial liabilities at FVTPL	238,782	1,376	11,708	9,660	2,155	102,964	366,645
Deposits	31,951,381	4,021,355	4,245,043	8,147,643	1,452,292	5,478,873	55,296,587
Borrowings	9,489,215	195,713	734,199	171,672	44,060	951,799	11,586,658
Debentures	4,315,722	—	1,519,420	192,936	—	172,750	6,200,828
Derivative liabilities used for hedging	170,926	—	—	—	—	—	170,926
Others	5,631,026	525,801	492,177	1,360,759	28,598	419,314	8,457,675
Total	51,797,052	4,744,245	7,002,547	9,882,670	1,527,105	7,125,700	82,079,319

<December 31, 2022>

Classification	USD	JPY	EUR	CNY	IDR	Others	Total
Assets							
Cash and due from bank	18,976,739	1,328,010	1,088,487	1,054,512	313,483	1,027,003	23,788,234
Financial assets at FVTPL	286,849	1,088	20,155	13,530	10,254	108,052	439,928
Financial assets at FVOCI	2,098,897	–	–	1,965,233	295,867	1,292,404	5,652,401
Securities at amortized cost	1,803,278	–	150,933	58,488	160,655	1,644,945	3,818,299
Loans	25,880,111	1,751,839	4,462,084	6,870,991	1,439,045	4,834,913	45,238,983
Others	3,251,413	166,333	340,695	333,508	49,281	433,891	4,575,121
Total	52,297,287	3,247,270	6,062,354	10,296,262	2,268,585	9,341,208	83,512,966
Liabilities							
Financial liabilities at FVTPL	250,577	4,653	20,461	17,168	–	109,451	402,310
Deposits	42,320,051	2,790,262	5,075,467	8,667,227	1,390,599	4,948,110	65,191,716
Borrowings	9,020,224	136,405	923,417	381,299	43,523	993,865	11,498,733
Debentures	4,673,935	–	605,055	336,151	19,709	239,892	5,874,742
Derivative liabilities used for hedging	226,919	–	–	–	–	–	226,919
Others	5,527,525	190,884	673,383	501,354	38,205	304,711	7,236,062
Total	62,019,231	3,122,204	7,297,783	9,903,199	1,492,036	6,596,029	90,430,482

8-6 Operating risk

Operational risk is the risk of loss arising from system failure, human error, fraud or other external events. Risks related to legal or regulatory implications are identified as operational risks, but risks related to the strategy of damaging reputation are excluded from operational risks. Operational risk includes losses from internal operational problems and externalities, such as natural disasters, etc., and legal lawsuit, but excludes losses from policy decision errors or unmeasurable reputation damage, etc. Operational risk does not have a direct correlation with income and the Group needs to mitigate such risk through internal controls and insurance.

Operating risk capital is calculated by multiplying the Business Indicator Component based on consolidated financial statements and the internal loss multiplier (ILM). The business index factor is calculated based on the consolidated financial statements by multiplying the annual average of interest-lease dividend factors, service factors and financial transaction factors over the past three years by the factor of each section. The ILM is the log function value of the loss element and the business index element, and the loss element is calculated by multiplying the average annual loss amount generated internally by the bank over the past 10 years by 15.

The Risk Management Committee determines the operational risk limits. In case the excess limit is expected, the management plan for the excess of internal capital limits should be reported to the Risk Management Operation Committee and if additional limits are given, an approval from the Risk Management Committee is needed beforehand. If the limit is exceeded due to the occurrence of an exceptional situation, an ex post facto approval from the Risk Management Committee is needed for the information on exceeded amount and post hoc results, as well as the subsequent plans.

8-7 Capital management

The Group implements the BIS capital requirement system in order to secure the capital adequacy and comply with the supervisory regulations. By BIS regulation, the Group keeps its BIS capital adequacy ratio (hereinafter, "BIS ratio") above the minimum BIS ratio for "RWA". In addition, the Group performs a capital adequacy assessment in order to cope with an unexpected loss.

RWA which are calculated per each risk type when calculating BIS ratio, are as follows:

- a. RWA of credit risk are calculated using the basic internal ratings-based approach. The Group uses the standardized approach for governments, banks, public institutes, overseas exposure, other assets, etc.
- b. RWA of the market risk are calculated by multiplying 12.5 to the amount of capital required by adding individual risks calculated by the standard model to the general risk calculated by the internal model.
- c. RWA of the operational risk are calculated by multiplying 12.5 to the amount of operational risk capital calculated by advanced measurement approach for the Group and basic indicator approach for its subsidiaries.

Regulatory capital in accordance with the Regulations on the Supervision of Banking Business for calculating BIS ratio is as follows:

- a. Common equity: Capital incurred in connection with common stock issued to meet the eligible requirement, capital surplus and capital adjustments, retained earnings, accumulated other comprehensive income and other capital surplus, capital adjustments, non-controlling interest on common shares issued by banks, affiliated subsidiaries, etc.
- b. Other basic capital: The capital securities to meet accreditation requirements of other basic capital, capital surplus associated with the issuance of the other basic capital, non-qualifying capital securities and the accredited amount as other basic capital of a non-controlling interest on equity securities issued by a subsidiary, etc.
- c. Supplementary capital: The capital securities to meet supplementary capital accreditation requirements, capital surplus associated with the issuance of supplementary capital, the accredited amount of supplementary capital of non-qualifying capital securities, the accredited amount as supplementary capital of a non-controlling interest on equity securities issued by a subsidiary, eligible allowance for possible loan losses on "normal" or "precautionary" category assets, allowance for possible loan losses in excess of the total amount of expected losses, etc.

Regulatory capital and BIS ratios as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Common equity		
Capital stock, capital surplus and capital adjustments incurred in connection with common stock issued that meets eligible requirements	5,359,548	5,359,508
Retained earnings	21,050,087	19,236,315
Accumulated other comprehensive income and other capital surplus, capital adjustments	5,019,367	4,556,672
Non-controlling interest on common shares issued by a bank, a consolidated subsidiary	71,380	67,750
Deduction	(1,428,880)	(1,343,267)
Subtotal	30,071,502	27,876,978
Other basic capital		
Equity securities satisfying the criteria of other basic capital	355,740	355,740
Amount accredited as supplementary capital of non-qualifying capital securities	—	—
Amount accredited as other basic capital of a non-controlling interest on equity securities issued by a subsidiary	15,296	14,518
Subtotal	371,036	370,258
Supplementary capital		
Equity securities satisfying the criteria of supplementary capital	2,581,000	2,993,076
Amount accredited as supplementary capital of non-qualifying capital securities	—	—
Amount accredited as supplementary capital of a non-controlling interest on equity securities issued by a subsidiary	20,394	19,358
Allowance for possible loan losses on assets categorized as "normal" or "precautionary"	458,672	273,899
Allowance for Qualified Bad Debt Exceeding the Estimated Total Loss, etc.	82,557	136,038
Subtotal	3,142,623	3,422,371
Total	33,585,161	31,669,607
Risk-weighted assets		
Credit risk-weighted assets (*)	164,378,354	154,742,641
Operational risk-weighted assets	16,009,569	18,539,555
Market risk-weighted assets	6,876,942	17,119,721
Total	187,264,865	190,401,917
BIS capital ratio		
Total capital ratio	17.93%	16.63%
Common equity ratio	16.06%	14.64%
Basic capital ratio	16.26%	14.84%
Supplementary capital ratio	1.68%	1.80%

(*) The equity below the lowest limit is presented in credit risk-weighted assets.

8-7-1 Internal capital adequacy assessment and management

Internal capital is the amount that allows for continuous operation of business while accounting for all risks. Internal capital is defined as the size of capital needed to cope with an unexpected loss under a certain rate. The purpose of managing the internal capital is to compare the size of internal capital and available capital (Tier 1) and to serve as a measure of financial strength.

Managing the internal capital also provides the amount of risk-adjusted capital and basic measurement. The indicators are composed of the risk appetite ratio, as well as exhaustion ratio of foreign holding limits. The risk appetite ratio is an internal capital ratio established after taking into consideration a capital buffer in Tier 1 capital. The exhaustion ratio of foreign holding limits is a ratio used to measure the amount of internal capital used against the internal capital limits.

Internal capital limits are established after accounting for the size of current and subsequent Tier 1 capital, as well as the components, quality, risk appetite, target credit rating, operational strategy and business plans. The Risk Management Committee determines risk types and the internal capital limits for the Group more than once a year. In the case where new operations or the expansion of operations results in the amount exceeding the internal capital limits, an approval from the Risk Management Committee is needed beforehand. If such a situation occurs in cases outlined as exceptions, an approval from the Risk Management Committee is needed for the information on exceeded amount and post hoc results, as well as the subsequent plans.

9. Operating segment information

9-1 General information

In order to set strategies to achieve goals and efficiently conduct performance assessment, the business sectors of the Group are divided by the operations as follows:

- a. Operating bank segment: It consists of four banks (Center, Yeongnam, Chungcheong and Honam). It offers household loan and deposit, retirement pension, company loan, deposit, etc.
- b. Capital market segment: This segmentation offers investment and operation of securities, buying and selling of public bonds and development and operation of derivatives.
- c. Other segment: It consists of the overseas business segment, headquarters supporting segment, trust segment, risk segment, audit segment and after-management segment.

9-2 Profit or loss by operating segment

9-2-1 Details of net income by operating segments for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Operating group segments				Finance and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Net interest income	5,753,944	959,225	826,839	263,572	124,910	7,928,490	(11,079)	7,917,411
Interest income	19,373,471	3,697,223	2,611,464	1,191,775	(6,998,683)	19,875,250	(82,187)	19,793,063
Interest expenses	(13,619,527)	(2,737,998)	(1,784,625)	(928,203)	7,123,593	(11,946,760)	71,108	(11,875,652)
Net fees and commission income	675,792	96,104	54,815	27,060	168,021	1,021,792	(360,328)	661,464
Net other operating loss	(1,964,861)	(418,562)	(320,035)	(129,865)	(1,573,026)	(4,406,349)	440,557	(3,965,792)
Net segment profit (loss)	4,464,875	636,767	561,619	160,767	(1,280,095)	4,543,933	69,150	4,613,083
Income tax expenses (benefit)	1,178,727	168,106	148,267	42,443	(337,421)	1,200,122	(74,472)	1,125,650
Net segment income (loss)	3,286,148	468,661	413,352	118,324	(942,674)	3,343,811	143,622	3,487,433

<2022>

Classification	Operating group segments				Finance and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Net interest income	5,435,248	936,305	723,768	268,623	254,283	7,618,227	(9,550)	7,608,677
Interest income	12,812,096	2,438,435	1,666,734	748,599	(4,289,059)	13,376,805	(29,574)	13,347,231
Interest expenses	(7,376,848)	(1,502,130)	(942,966)	(479,976)	4,543,342	(5,758,578)	20,024	(5,738,554)
Net fees and commission income	592,662	91,945	56,595	27,454	149,665	918,321	(324,709)	593,612
Net other operating loss	(1,749,101)	(384,761)	(283,775)	(115,940)	(2,366,803)	(4,900,380)	869,577	(4,030,803)
Net segment profit (loss)	4,278,809	643,489	496,588	180,137	(1,962,855)	3,636,168	535,318	4,171,486
Income tax expenses (benefit)	1,176,672	176,959	136,562	49,538	(531,409)	1,008,322	51,465	1,059,787
Net segment income (loss)	3,102,137	466,530	360,026	130,599	(1,431,446)	2,627,846	483,853	3,111,699

Operating segment information was rewritten due to changes in the organizational structure for the year ended December 31, 2023.

9-2-2 Revenue from external customers in each operating sector for the years ended December 31, 2023 and 2022, is as follows (Korean won in millions):

<2023>

Classification	Operating group segments				Finance and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Revenue from external customers	5,819,200	928,625	759,766	246,251	1,336,015	9,089,857	(377,422)	8,712,435

<2022>

Classification	Operating group segments				Finance and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Revenue from external customers	5,573,804	917,177	686,539	261,486	731,808	8,170,814	(127,731)	8,043,083

Operating segment information was rewritten due to changes in the organizational structure for the year ended December 31, 2023.

9-2-3 Significant non-cash transactions included in income of operating segments for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Operating group segments				Finance and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Earnings from equity method investments	–	–	–	–	168,113	168,113	–	168,113
Depreciation and amortization	(138,820)	(14,469)	(10,950)	(4,026)	(334,853)	(503,118)	(959)	(504,077)
Total	(138,820)	(14,469)	(10,950)	(4,026)	(166,740)	(335,005)	(959)	(335,964)

<2022>

Classification	Operating group segments				Finance and other sectors	Subtotal	Adjustments	Total
	Center	Yeongnam	Chungcheong	Honam				
Earnings from equity method investments	–	–	–	–	189,013	189,013	–	189,013
Depreciation and amortization	(129,385)	(12,721)	(9,791)	(4,071)	(281,459)	(437,427)	(645)	(438,072)
Total	(129,385)	(12,721)	(9,791)	(4,071)	(92,446)	(248,414)	(645)	(249,059)

Operating segment information was rewritten due to changes in the organizational structure for the year ended December 31, 2023.

9-3 Information about geographic region

Gain and loss by geographic region from the external customers for the years ended December 31, 2023 and 2022, and non-current assets by the region as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Gain and loss from external customers(*1)		Non-current assets(*2)	
	2023	2022	December 31, 2023	December 31, 2022
Domestic	8,082,666	7,160,295	3,317,272	3,278,506
Foreign				
Hong Kong	69,427	73,208	2,844	5,320
Singapore	49,517	60,878	2,526	1,943
United States	97,380	85,888	27,806	29,170
Japan	28,337	36,579	2,488	3,486
China	222,364	247,818	62,438	62,936
Indonesia	165,397	182,806	48,045	57,301
United Kingdom	8,468	6,537	2,102	2,601
Canada	57,736	49,635	22,355	11,274
Others	308,565	267,168	27,000	19,263
Subtotal	1,007,191	1,010,517	197,604	193,294
Adjustments	(377,422)	(127,729)	4,737	5,263
Total	8,712,435	8,043,083	3,519,613	3,477,063

(*1) Gain and loss from external customers are divided into categories of domestic and overseas based on the locations of operating branches.

(*2) Non-current assets consist of property and equipment, investment property, intangible assets and right-of-use assets that are divided into categories of domestic and overseas based on the location of assets.

10. Cash and due from banks

10-1 Cash and due from banks as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Counterparty	December 31, 2023	December 31, 2022
Cash		1,742,359	1,903,972
Due from banks in Korean won			
Reserve deposits	Bank of Korea ("BOK")	10,025,623	15,928,268
Time deposits, etc.	Other banks	401,191	8,309
Other deposits	Other financial institutions	23,654	14,313
Subtotal		10,450,468	15,950,890
Due from banks in foreign currencies			
Due from other branches	BOK and other banks	8,823,939	11,590,380
Time deposits and others	QATAR National Bank and other banks	1,018,569	1,147,224
Other deposits	Other financial institutions	8,528,944	10,495,391
Subtotal		18,371,452	23,232,995
Total		30,564,279	41,087,857

10-2 Restricted balances in cash and due from banks as of December 31, 2023 and 2022, are summarized as follows (Korean won in millions):

Classification		December 31, 2023	December 31, 2022	Restriction
Due from banks in Korean won	Reserve deposits	10,025,623	15,928,268	Required under the <i>Banking Act</i> and other related regulations
	Collective fund for Korea Stock Exchange	500	500	Pledge creation, etc.
	Subtotal	10,026,123	15,928,768	
Due from banks in foreign currencies	Due from other branches	7,828,902	9,596,192	Reserve deposits required under the <i>Banking Act</i> and other related regulations
	Due from others	8,199,138	9,708,393	Deposits received for guarantees as margin for derivatives, etc.
	Subtotal	16,028,040	19,304,585	
Total		26,054,163	35,233,353	

11. Financial assets at FVTPL

11-1 Financial assets mandatorily measured at FVTPL as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Stocks	117,803	63,560
Government and public bonds	4,555,436	2,068,958
Financial bonds	397,600	563,364
Corporate bonds	1,060,500	912,624
Beneficiary certificates	3,265,402	2,733,298
Securities denominated in foreign currencies	1,507,867	1,786,106
Derivative assets held for trading	5,965,872	9,851,754
Other securities (investment, etc.)	636,949	468,357
Private convertible bonds	7,447	7,394
Total	17,514,876	18,455,415

11-2 As of December 31, 2023 and 2022, the Group does not hold any financial assets designated as at FVTPL.

12. Financial assets at FVOCI

12-1 As of December 31, 2023 and 2022, financial assets at FVOCI are as follows (Korean won in millions):

Classification	Counterparty	Fair value (book value)	
		December 31, 2023	December 31, 2022
Stocks	Hanwha Ocean Co., Ltd., etc.	610,317	714,863
Investments in partnership	Impact Finance Korea	–	105
Government and public bonds	Treasury bonds	6,432,877	7,264,139
	Housing bonds	2,614,084	2,383,681
	Other local bonds	213,751	226,842
	Subtotal	9,260,712	9,874,662
Finance bonds	Monetary stabilization securities	5,708,089	3,087,556
	Deposit bank bonds	1,269,983	1,128,701
	Small- and medium-sized business banking bonds	1,510,420	1,904,983
	Industrial financial bonds	3,713,637	3,423,699
	Export-import credit bonds	226,751	313,214
	Others	140,015	663,479
	Subtotal	12,568,895	10,521,632
Corporate bonds and others	State-owned entity bonds	6,631,316	5,618,840
	Corporate bonds	375,868	461,899
	Others	59,321	20,640
	Subtotal	7,066,505	6,101,379
Other securities	Convertible bonds (permanent)	33,153	89,131
Securities denominated in foreign currencies	Equity securities in foreign currencies	6,996	6,406
	Bonds in foreign currencies	7,347,533	5,652,403
	Subtotal	7,354,529	5,658,809
Total		36,894,111	32,960,581

12-2 As of December 31, 2023 and 2022, details of equity instruments included in financial assets at FVOCI are as follows (Korean won in millions):

Counterparty	Fair value (book value)	
	December 31, 2023	December 31, 2022
UAMCO., Ltd.	196,670	188,721
Hanwha Ocean Co., Ltd.	144,576	170,845
The Korea Securities Finance Corporation	118,002	115,513
Kookmin Cable Investment Inc.	33,153	43,924
National Happiness Fund Co., Ltd.	26,261	50,942
Korea Rating & Data	18,933	20,111
Korea Asset Management Corporation	15,737	15,737
Kumho Tire Co., Ltd.	13,084	6,748
Korea Money Brokerage Corp	11,014	9,660
BC Card Co., Ltd.	10,298	10,604
HJC Inc.	10,190	9,817
POSCO Plantec Co., Ltd.	6,463	4,676
Mirae Credit Information Co., Ltd.	6,416	7,324
DB Asset Management Co., Ltd.	5,753	5,713
Chang Myung Shipping Co., Ltd.	3,807	—
Maeil Broadcasting Network(MBN)	2,665	—
DL Construction Co., Ltd.	2,159	2,509
CLS GROUP HOLDINGS AG	5,603	5,038
Taihan Cable & Solution Co., Ltd.	—	46,131
HMM Co., Ltd.	—	17,387
KG Dongbu Steel Co., Ltd.	—	8,387
STX Engine Co., Ltd.	—	45,207
Korea Securities Depository and others	19,682	25,511
Total	650,466	810,505

Equity instruments that are held by the purpose of strategic alliances, acquisition due to conversion from debt instruments and acquisition for access rights of systems and facilities are designated as measured at FVOCI.

12-3 Details of equity instruments included in the financial assets at FVOCI derecognized for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Counterparty	Fair value	Cumulative valuation gain (loss)	Reason for disposal
STX Engine Co., Ltd.	45,207	26,606	Exercise of the right to sell
DGB Life Insurance Co., Ltd.	2	(107)	Share swap
ETAPOL Co., Ltd.	12	12	Sale of securities convertible to equity securities
Impact Finance Korea	205	15	Share swap
Hanwha Ocean Co., Ltd.	138,774	138,774	Sale of securities convertible to equity securities
KG Dongbu Steel Co., Ltd.	8,139	(25,445)	Sale of securities convertible to equity securities
HMM Co., Ltd.	12,772	2,588	Sale of securities convertible to equity securities
Sawnics Inc.	37	37	Sale of securities convertible to equity securities
US Co., Ltd.	6	6	Sale of securities convertible to equity securities
Taihan Cable & Solution Co., Ltd.	35,092	(73,348)	Sale of securities convertible to equity securities
Coson Co., Ltd.	91	91	Sale of securities convertible to equity securities
Taihan Industrial System	16	16	Sale of securities convertible to equity securities
Dongwoo A&E Co., Ltd.	8	8	Sale of securities convertible to equity securities
Metal Link Inc.	201	201	Sale of securities convertible to equity securities
Marizin	-	-	Free incineration of securities
Enertech Co., Ltd.	-	(202)	Free incineration of securities
Nanorricart Co., Ltd.	-	-	Free incineration of securities
Heungwha Co., Ltd.	-	-	Free incineration of securities
Total	240,562	69,252	

<2022>

Counterparty	Fair value	Cumulative valuation gain (loss)	Reason for disposal
Sun jin Air & Tech.Co., Ltd.	-	-	Free incineration of securities
SHINDONGDIGTECHCO, LTD	-	-	Free incineration of securities
IHSUNG ONI CO., Ltd.	-	-	Sale of securities convertible to equity securities
Hansol Papertech Co., Ltd.	1	1	Sale of securities convertible to equity securities
EMint Co., Ltd	119	119	Sale of securities convertible to equity securities
Kolmarpharma Co., Ltd.	1	1	Sale of securities convertible to equity securities
GOLDEN BRIDGE ASSET MANAGEMENT Co., Ltd.	478	78	Sale of securities convertible to equity securities due to reduced effectiveness of strategic investment
DAEIL LEATHER CO., Ltd.	40	40	Exercise of the right to claim for reimbursement recourse according to the rehabilitation plan
Olive Co., Ltd.	22	22	Exercise of call option according to the rehabilitation plan
ChinHung International, Inc.	3,280	(1,320)	Resolution of the board of directors
Taihan Cable & Solution Co., Ltd.	1,174	1,174	Resolution of the board of directors
KG Dongbu Steel Co., Ltd.	20,980	(3,806)	Resolution of the board of directors
Total	26,095	(3,691)	

12-4 Dividends recognized due to the equity instruments at FVOCI derecognized for the year ended December 31, 2023, amount to ₩1,237 million. Dividends recognized in relation to the equity instruments at FVOCI held as of December 31, 2023, amount to ₩6,804 million. There are no dividends recognized due to the equity instruments at FVOCI derecognized for the year ended December 31, 2022. Dividends recognized in relation to the equity instruments at FVOCI held as of December 31, 2022, amount to ₩8,287 million.

12-5 Changes in the loss allowance in relation to financial assets at FVOCI for the years ended December 31, 2023 and 2022, are as follows
(Korean won in millions):

<2023>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	11,150	—	—	11,150
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
Provision for ECL	5,912	—	—	5,912
Removed debt securities	(5,045)	—	—	(5,045)
Ex change rate fluctuation and others	1,093	—	—	1,093
Ending balance	13,110	—	—	13,110

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	11,298	—	—	11,298
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
Provision for ECL	2,516	—	—	2,516
Removed debt securities	(3,119)	—	—	(3,119)
Ex change rate fluctuation and others	455	—	—	455
Ending balance	11,150	—	—	11,150

12-6 Changes in the total book value in relation to financial assets at FVOCI for the years ended December 31, 2023 and 2022, are as follows
(Korean won in millions):

<2023>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	32,150,076	—	—	32,150,076
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
New financial assets executed or purchased	19,187,926	—	—	19,187,926
Removed debt securities	(15,561,487)	—	—	(15,561,487)
Ex change rate fluctuation and others	467,130	—	—	467,130
Ending balance	36,243,645	—	—	36,243,645

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	34,322,778	—	—	34,322,778
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
New financial assets executed or purchased	10,732,956	—	—	10,732,956
Removed debt securities	(12,330,139)	—	—	(12,330,139)
Ex change rate fluctuation and others	(575,519)	—	—	(575,519)
Ending balance	32,150,076	—	—	32,150,076

13. Securities at amortized cost

13-1 Details of securities at amortized cost as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Category	December 31, 2023	December 31, 2022
Government and public bonds	Treasury bonds	3,087,295	3,177,898
	Housing bonds	2,981,531	3,585,127
	Other local government bonds	506,962	506,322
	Subtotal	6,575,788	7,269,347
Finance bonds	Monetary stabilization bond	249,998	649,822
	Deposit bank bonds	546,857	545,116
	Small- and medium-sized business banking bonds	2,299,692	2,299,454
	Industrial financial bonds	3,929,216	3,967,758
	Export-import credit bonds	349,794	429,681
	Subtotal	7,375,557	7,891,831
Corporate bonds and others	State-owned entity bonds	18,446,291	18,316,697
	Corporate bonds	279,483	298,312
	Subtotal	18,725,774	18,615,009
Securities denominated in foreign currencies	Bonds in foreign currencies	3,680,491	3,890,116
Allowances		(19,661)	(82,816)
Total		36,337,949	37,583,487

13-2 Profit or loss from disposal of securities at amortized cost for the years ended December 31, 2023 and 2022, is as follows (Korean won in millions):

<2023>

Classification	Face amount	Book value	Amount of profit from disposal
Corporate bonds and others	10,600	10,597	3
Bonds in foreign currencies	36,276	36,276	229
Total	46,876	46,873	232

<2022>

Classification	Face amount	Book value	Amount of profit from disposal
Corporate bonds and others	7,800	7,796	4

For the years ended December 31, 2023 and 2022, the Group disposed portion of securities at amortized cost for the purpose of managing the credit risk.

13-3 Changes in the loss allowance in relation to securities at amortized cost for the years ended December 31, 2023 and 2022, are as follows
(Korean won in millions):

<2023>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	13,073	5,773	63,970	82,816
Transfer to 12-month ECL	–	–	–	–
Transfer to non-credit-impaired debt securities	–	–	–	–
Transfer to credit-impaired debt securities	–	–	–	–
Provision for ECL	5,735	179	–	5,914
Removed debt securities	(1,038)	–	(41,153)	(42,191)
Amortized debt securities	–	–	(27,108)	(27,108)
Ex change rate fluctuation and others	(4,039)	(22)	4,291	230
Ending balance	13,731	5,930	–	19,661

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	8,104	11,200	–	19,304
Transfer to 12-month ECL	–	–	–	–
Transfer to non-credit-impaired debt securities	–	–	–	–
Transfer to credit-impaired debt securities	–	(8,470)	8,470	–
Provision for ECL	5,525	3,007	58,941	67,473
Removed debt securities	(507)	–	–	(507)
Ex change rate fluctuation and others	(49)	36	(3,441)	(3,454)
Ending balance	13,073	5,773	63,970	82,816

13-4 Changes in the carrying amounts of securities at amortized cost for the years ended December 31, 2023 and 2022, are as follows
(Korean won in millions):

<2023>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	37,574,459	24,508	67,336	37,666,303
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
New debt securities executed or purchased	1,208,227	—	—	1,208,227
Removed debt securities	(2,651,359)	—	(68,261)	(2,719,620)
Effective interest rate amortization	69,043	—	—	69,043
Ex change rate fluctuation and others	132,814	(82)	925	133,657
Ending balance	36,333,184	24,426	—	36,357,610

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	22,393,248	93,940	—	22,487,188
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	(68,827)	68,827	—
New debt securities executed or purchased	16,705,097	—	—	16,705,097
Removed debt securities	(1,664,801)	—	—	(1,664,801)
Effective interest rate amortization	(23,576)	—	—	(23,576)
Ex change rate fluctuation and others	164,491	(605)	(1,491)	162,395
Ending balance	37,574,459	24,508	67,336	37,666,303

14. Pledged assets and acquired collaterals

14-1 Assets pledged as collateral as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Category	December 31, 2023	December 31, 2022
Financial assets at FVTPL	Securities lent	9,936	412,491
	BOK payment	612,117	–
	Others	926,687	390,251
	Subtotal	1,548,740	802,742
Financial assets at FVOCI	Intraday overdraft	246,979	272,486
	Securities lent	1,051,270	1,925,345
	BOK borrowings	589,932	1,240,667
	Foreign currency borrowings	532,712	–
	BOK payment	4,915,988	39,707
	Futures	220,328	374,368
	Customer repurchase agreement	48	46
	Others	2,268,279	3,057,070
	Subtotal	9,825,536	6,909,689
Securities at amortized cost	Intraday overdraft	403,880	373,511
	Securities lent	194,312	416,386
	BOK borrowings	3,317,956	4,719,163
	Foreign currency borrowings	801,692	484,066
	BOK payment	7,728,925	2,905,847
	Futures	192,445	10,000
	Others	1,427,564	1,151,860
	Subtotal	14,066,774	10,060,833
Total		25,441,050	17,773,264

14-2 The fair value of collateral that is available for sale and repledge, irrespective of default as of December 31, 2023 and 2022, is as follows (Korean won in millions):

⟨December 31, 2023⟩

Classification	Fair value of collateral	Fair value of collateral sold or repledged
Securities	13,158,028	—

⟨December 31, 2022⟩

Classification	Fair value of collateral	Fair value of collateral sold or repledged
Securities	11,589,157	3,349,854

15. Loans

15-1 Loans as of December 31, 2023 and 2022, are as follows
(Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Loans		
Loans in Korean won	292,565,176	274,028,231
Loans denominated in foreign currencies	31,794,128	32,053,751
Domestic import usance	3,833,914	4,546,348
Call loans	1,387,914	1,377,862
Bills purchased in Korean won	172,864	936,548
Bills purchased denominated in foreign currencies	4,040,638	5,289,419
Advance payments on payment guarantees	10,508	5,533
Bonds purchased under resale agreement	13,754,130	11,776,664
Privately placed corporate bonds	1,080,096	1,081,238
Others	268,918	401,026
Subtotal	348,908,286	331,496,620
Addition (deduction)		
Net deferred origination fees and costs	383,467	356,338
Allowance for loan losses	(2,044,843)	(1,666,617)
Subtotal	(1,661,376)	(1,310,279)
Total	347,246,910	330,186,341

15-2 Loans by customer as of December 31, 2023 and 2022, are listed as follows
(Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Corporate loans		
Large-sized businesses	52,615,031	49,305,435
Small- and medium-sized businesses	143,438,684	129,742,648
Public sector and others	20,928,782	19,907,599
Household loans	131,925,789	132,540,938
Subtotal	348,908,286	331,496,620
Addition (deduction)		
Net deferred origination fees and costs	383,467	356,338
Allowance for loan losses	(2,044,843)	(1,666,617)
Subtotal	(1,661,376)	(1,310,279)
Total	347,246,910	330,186,341

15-3 Changes in allowance for possible loan losses for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit -impaired loan	Credit- impaired loan	
Beginning balance	598,922	763,949	303,746	1,666,617
Transfer to 12-month ECL	42,435	(41,384)	(1,051)	-
Transfer to non-credit-impaired loan	(174,562)	180,294	(5,732)	-
Transfer to credit-impaired loan	(9,201)	(74,776)	83,977	-
Provisions of allowance for loan losses	316,989	(31,617)	404,228	689,600
Write-offs	-	-	(402,866)	(402,866)
Disposal of non-performing loans, etc.	-	-	(51,463)	(51,463)
Recovering of loans written off	-	-	104,403	104,403
Exchange rate fluctuation and others	12,130	8,059	18,363	38,552
Ending balance (*)	786,713	804,525	453,605	2,044,843

(*) As of December 31, 2023, in order to expand loss absorption capacity in growing economic uncertainty worldwide, the Group has accumulated an additional ₩34,462 million in allowances for financial support interest and deferred repayment loans for small- and medium-sized companies and small business owners affected by COVID-19, and ₩17,709 million for maturity-extended loans.

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit -impaired loan	Credit- impaired loan	
Beginning balance	405,354	668,520	359,694	1,433,568
Transfer to 12-month ECL	39,276	(37,361)	(1,915)	–
Transfer to non-credit-impaired loan	(37,102)	38,749	(1,647)	–
Transfer to credit-impaired loan	(8,994)	(28,298)	37,292	–
Provisions of allowance for loan losses	186,883	118,465	279,658	585,006
Write-offs	–	–	(428,658)	(428,658)
Disposal of non-performing loans, etc.	–	–	(31,429)	(31,429)
Recovering of loans written off	–	–	90,478	90,478
Exchange rate fluctuation and others	13,505	3,874	273	17,652
Ending balance	598,922	763,949	303,746	1,666,617

(*) As of December 31, 2022, in order to expand loss absorption capacity in growing economic uncertainty worldwide, the Group has accumulated an additional ₩50,387 million in allowances for financial support interest and deferred repayment loans for small- and medium-sized companies and small business owners affected by COVID-19. The additional allowances include ₩413 million in impact of Stage 2 classification of principal and interest deferred borrowers.

15-4 Changes in the carrying amounts of loans for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit -impaired loan	Credit- impaired loan	
Beginning balance	289,447,264	41,149,957	899,399	331,496,620
Transfer to 12-month ECL	5,884,595	(5,875,653)	(8,942)	—
Transfer to non-credit-impaired loan	(14,090,938)	14,117,340	(26,402)	—
Transfer to credit-impaired loan	(1,076,492)	(1,091,008)	2,167,500	—
Net increase (decrease)	24,195,159	(5,081,408)	(418,115)	18,695,636
Write-offs	—	—	(402,866)	(402,866)
Disposal of non-performing loans, etc.	—	—	(881,104)	(881,104)
Ending balance	304,359,588	43,219,228	1,329,470	348,908,286

Net deferred origination fees and costs are not reflected in the gross carrying amounts above.

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit -impaired loan	Credit- impaired loan	
Beginning balance	270,511,534	38,818,581	902,166	310,232,281
Transfer to 12-month ECL	6,182,647	(6,172,422)	(10,225)	—
Transfer to non-credit-impaired loan	(12,624,851)	12,640,990	(16,139)	—
Transfer to credit-impaired loan	(470,765)	(409,106)	879,871	—
Net increase (decrease)	25,848,699	(3,728,086)	(251,415)	21,869,198
Write-offs	—	—	(428,658)	(428,658)
Disposal of non-performing loans, etc.	—	—	(176,201)	(176,201)
Ending balance	289,447,264	41,149,957	899,399	331,496,620

Net deferred origination fees and costs are not reflected in the gross carrying amounts above.

15-5 Amortized costs before changes in contractual cash flows of loans (contractual cash flows changed for the years ended December 31, 2023 and 2022) for which allowances for loan losses have been at the lifetime ECL and net gain or loss recognized based on the changes in contractual cash flows are as follows (Korean won in millions):

Classification	2023	2022
Amortized cost before change	60,826	81,226
Allowance before change	58,669	78,847
Amount after deducting allowance	2,157	2,379
Net loss due to change	43	835

15-6 Loans whose contractual cash flows changed for which the measurement of allowance for loan losses changed from the lifetime ECL to 12-month ECL on initial recognition during the reporting period do not exist as of December 31, 2023, and are ₩1,355 million as of December 31, 2022.

15-7 The contractual non-recoverable amount of the loans that has been fully written off as of the end of the reporting period, but is still trying to recover, is ₩3,790,688 million and ₩4,090,534 million as of December 31, 2023 and 2022, respectively.

16. Derivative instruments

16-1 Details of amounts of the unsettled derivative contract and fair value of derivatives held by the Group as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Amounts of unsettled contract		Accumulated valuation gain (loss)			
	December 31, 2023	December 31, 2022	December 31, 2023		December 31, 2022	
			Assets	Liabilities	Assets	Liabilities
Currency						
Forward	267,560,507	224,433,459	2,866,287	2,406,480	5,673,931	5,229,138
Swap	85,714,059	87,834,023	2,550,525	2,822,494	3,418,688	4,549,082
Options purchased	603,175	664,573	4,887	–	3,742	–
Options sold	448,824	635,883	–	4,878	–	3,267
Futures	1,454,147	1,411,202	–	–	–	–
Subtotal	355,780,712	314,979,140	5,421,699	5,233,852	9,096,361	9,781,487
Interest						
Forward	5,580,919	2,858,744	131,737	248,528	217,225	101,410
Swap	180,027,865	158,972,394	423,790	539,156	551,422	826,106
Options purchased	53,022	66,150	–	–	–	–
Options sold	515,000	765,000	–	5,758	–	9,458
Futures	1,244,792	857,539	–	–	–	–
Subtotal	187,421,598	163,519,827	555,527	793,442	768,647	936,974
Stock						
Forward	7,953	524	103	–	286	–
Swap	183,393	72,499	637	2,572	578	1,827
Options purchased	12,385	50,219	362	–	213	–
Options sold	358,112	263,304	–	12,200	–	22,289
Futures	27,747	21,681	–	–	–	–
Subtotal	589,590	408,227	1,102	14,772	1,077	24,116
Others						
Credit spread adjustment	–	–	(12,456)	–	(14,331)	–
Total	543,791,900	478,907,194	5,965,872	6,042,066	9,851,754	10,742,577

16-2 Details of valuation gain (loss) of the derivatives for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023		2022	
	Gain	Loss	Gain	Loss
Currency				
Forward	2,637,563	2,255,456	5,218,502	5,186,622
Swap	1,116,460	1,022,004	2,842,829	3,554,679
Options purchased	2,651	–	3,976	–
Options sold	–	2,641	–	1,377
Subtotal	3,756,674	3,280,101	8,065,307	8,742,678
Interest				
Forward	94,482	330,812	208,726	99,096
Swap	381,897	156,592	698,094	977,477
Options purchased	–	–	1,579	–
Options sold	735	206	–	4,195
Subtotal	477,114	487,610	908,399	1,080,768
Stock				
Forward	–	126	171	–
Swap	3,797	4,287	269	2,415
Options purchased	–	–	562	–
Options sold	2,151	59	2,331	20,739
Subtotal	5,948	4,472	3,333	23,154
Others				
Credit spread adjustment	1,875	–	–	3,020
Total	4,241,611	3,772,183	8,977,039	9,849,620

16-3 Fair value hedge

16-3-1 Details of items subject to fair value hedge as of December 31, 2023 and 2022, and fair value fluctuation for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<December 31, 2023>

Classification	Hedged items	Book value		Accumulated fair value adjustments		Fair value fluctuation (2023)
		Assets	Liabilities	Assets	Liabilities	
Application of hedge accounting						
Interest	Depository liabilities in Korean won	—	252,537	—	(47,463)	(14,831)
	Depository liabilities denominated in foreign currencies	—	118,642	—	(23,192)	(346)
	Finance debentures denominated in Korean won	—	100,450	—	(29,550)	(7,188)
	Finance debentures denominated in foreign currencies	—	2,624,293	—	(147,917)	(56,708)
	Subtotal	—	3,095,922	—	(248,122)	(79,073)
Currency and interest	Finance debentures denominated in foreign currencies	—	899,006	—	(49,053)	(21,108)
Total		—	3,994,928	—	(297,175)	(100,181)

<December 31, 2022>

Classification	Hedged items	Book value		Accumulated fair value adjustments		Fair value fluctuation (2022)
		Assets	Liabilities	Assets	Liabilities	
Application of hedge accounting						
Interest	Depository liabilities in Korean won	–	187,705	–	(62,295)	46,117
	Depository liabilities denominated in foreign currencies	–	115,865	–	(23,538)	24,898
	Finance debentures denominated in Korean won	–	93,262	–	(36,738)	26,241
	Finance debentures denominated in foreign currencies	–	2,773,530	–	(204,625)	228,870
	Subtotal	–	3,170,362	–	(327,196)	326,126
Currency and interest	Finance debentures denominated in foreign currencies	–	1,080,816	–	(70,161)	61,499
Total		–	4,251,178	–	(397,357)	387,625

As of December 31, 2023 and 2022, interest rate swaps or currency swaps are designated as hedging instrument and the fair value hedge accounting is applied in order to hedge fair value fluctuation risk incurred due to interest rate fluctuations and foreign exchange rate fluctuations in finance debentures issued and depository liabilities.

16-3-2 Details of derivative instruments designated as hedging purposes and related assets and liabilities as of December 31, 2023 and 2022, and net valuation gain (loss) for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	Nominal amounts of hedging instrument	Fair value fluctuation	Accumulated valuation gain or loss	
			Assets	Liabilities
Interest rate				
Interest rate swaps	3,344,044	78,013	1,723	249,662
Currency and interest				
Currency swaps	948,059	48,504	–	137,059
Total	4,292,103	126,517	1,723	386,721

◁December 31, 2022▷

Classification	Nominal amounts of hedging instrument	Fair value fluctuation	Accumulated valuation gain or loss	
			Assets	Liabilities
Interest rate				
Interest rate swaps	3,497,557	(325,171)	–	325,952
Currency and interest				
Currency swaps	1,150,977	(129,660)	8,062	180,193
Total	4,648,534	(454,831)	8,062	506,145

16-3-3 Ineffective portion of gain or loss on derivatives designated as fair value hedging instrument for the years ended December 31, 2023 and 2022, is as follows (Korean won in millions):

Classification	Ineffective portion of the hedge recognized in profit or loss for the period	
	2023	2022
Currency	(7)	(19)
Interest	38	(204)
Total	31	(223)

16-4 Hedges of net investment in foreign operations

16-4-1 Details of hedges of net investment in foreign operations as of December 31, 2023 and 2022, and fair value fluctuation for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<December 31, 2023>

Classification	Fair value fluctuation	Other comprehensive income of hedges of net investment in foreign operations
Net investment in foreign operations	795	(71,919)

<December 31, 2022>

Classification	Fair value fluctuation	Other comprehensive income of hedges of net investment in foreign operations
Net investment in foreign operations	28,241	(49,823)

16-4-2 Details of fair values of financial instruments designated as hedging instrument of net investment in foreign operations as of December 31, 2023 and 2022, are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	Nominal amounts of hedging instrument	Book value		Fair value fluctuation
		Assets	Liabilities	
Currency forwards	142,507	—	4,258	(1,148)
Debentures denominated in foreign currencies	1,126,834	—	1,126,833	(28,701)
Borrowings denominated in foreign currencies	126,588	—	126,588	(1,919)
Total	1,395,929	—	1,257,679	(31,768)

◁December 31, 2022▷

Classification	Nominal amounts of hedging instrument	Book value		Fair value fluctuation
		Assets	Liabilities	
Currency forwards	233,345	—	10,273	(10,273)
Debentures denominated in foreign currencies	1,131,686	—	1,131,686	(24,527)
Borrowings denominated in foreign currencies	170,314	—	170,314	6,559
Total	1,535,345	—	1,312,273	(28,241)

16-4-3 Details of gain (loss) on hedges of net investment in foreign operations for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Gain or loss on hedges recognized in other comprehensive income	Ineffective portion of the hedge recognized as profit or loss	Accounts that include the recognized hedge ineffectiveness	Reclassification to profit and loss from other comprehensive income of hedges of net investment in foreign operations
Net investment in foreign operations	(30,022)	(1,746)	—	—

<2022>

Classification	Gain or loss on hedges recognized in other comprehensive income	Ineffective portion of the hedge recognized as profit or loss	Accounts that include the recognized hedge ineffectiveness	Reclassification to profit and loss from other comprehensive income of hedges of net investment in foreign operations
Net investment in foreign operations	(28,241)	—	—	—

16-5 Average hedging ratios of future nominal cash flows by the type of risk hedge as of December 31, 2023 and 2022, are as follows (Korean won in millions):

〈December 31, 2023〉

Classification	1 year	2 years	3 years	4 years	5 years	More than 5 years	Total
Fair value hedge							
Nominal amounts of hedging instrument	1,395,224	–	1,486,935	773,640	–	636,304	4,292,103
Average hedging ratio	100.38%	–	100.01%	100.42%	–	100.00%	100.20%
Hedge of net investment in foreign operations							
Nominal amounts of hedging instrument	996,265	–	399,664	–	–	–	1,395,929
Average hedging ratio	100.00%	–	100.00%	–	–	–	100.00%

〈December 31, 2022〉

Classification	1 year	2 years	3 years	4 years	5 years	More than 5 years	Total
Fair value hedge							
Nominal amounts of hedging instrument	494,058	1,375,348	–	1,435,980	760,380	582,768	4,648,534
Average hedging ratio	100.18%	100.36%	–	99.95%	102.32%	100.00%	100.15%
Hedge of net investment in foreign operations							
Nominal amounts of hedging instrument	734,427	576,205	–	224,713	–	–	1,535,345
Average hedging ratio	99.42%	100.00%	–	100.00%	–	–	99.72%

17. Investments in associates and a joint venture

17-1 Details of investments in associates and a joint venture as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Type	Country	Industry	Reporting date	Ownership (%)		Book value	
					December 31, 2023	December 31, 2022	December 31, 2023	December 31, 2022
Bank of Jilin (*1)	Associate	China	Bank	2023.12.31	10.76	11.92	896,961	877,491
Hana Equity Partners I, L.P.	Associate	Korea	Other financial services	2023.12.31	29.97	29.97	95	95
Korea Credit Bureau (*1)	Associate	Korea	Credit investigation and collection agency	2023.12.31	9.00	9.00	6,162	5,503
Templeton Hana Asset Management Co., Ltd. (*1)	Associate	Korea	Asset management company	2023.12.31	9.90	9.90	1,425	1,387
CM International financing leases	Associate	China	Other financial services	2023.12.31	25.00	25.00	540	1,629
Beijing Langzi Asset Management Co., Ltd. (*1)	Associate	China	Credit financial business	2023.12.31	12.89	12.89	58,491	56,805
Somesevit Corporation (*1)(*2)	Associate	Korea	Construction	2023.12.31	1.92	1.92	–	–
Midan City Development Co., Ltd. (*1)(*2)(*3)	Associate	Korea	Construction	2018.03.31	2.17	2.17	–	–
Company K Startup Winwin Fund	Associate	Korea	Investment	2023.12.31	23.81	23.81	1,730	2,355
BSK-6 Patent Technology Investment Association	Associate	Korea	Investment	2023.12.31	20.00	20.00	2,514	2,748
Hana – KVIC Unicorn Fund of Funds (*4)	Associate	Korea	Investment	2023.12.31	90.91	90.91	94,542	98,244
Harvest Private Equity Fund Specializing in Start-Up and Venture Business	Associate	Korea	Investment	2023.12.31	27.27	27.27	1,402	2,805
Bank for Investment and Development of Vietnam ("BIDV") (*1)	Associate	Vietnam	Bank	2023.12.31	15.00	15.00	1,748,883	1,641,419
Hana Micro Finance., Ltd.	Associate	Myanmar	Other financial services	2023.12.31	25.00	25.00	16,015	18,199
HORIZON PRIVATE EQUITY FUND	Associate	Korea	Investment	2023.12.31	22.40	22.40	30,102	49,491
Hana Ventures No.7 New Technology Business Investment Association	Associate	Korea	Investment	2023.12.31	27.27	27.27	668	1,434
TossBank Corp. (*1)	Associate	Korea	Bank	2023.12.31	8.99	8.62	146,900	87,566
Sinsa Station area Complex Development PFV Co., Ltd. (*1)	Associate	Korea	Other development supply business	2023.12.31	9.00	9.00	–	365
Hana–Capstone AI Platform Fund	Associate	Korea	Other financial services	2023.12.31	36.54	36.54	29,404	29,287
Taurus Cloud Fund	Associate	Korea	Other financial services	2023.12.31	27.06	27.06	9,747	9,416
Cheongna Medipolis PFV Co., Ltd. (*1)	Associate	Korea	Real estate development and supply	2023.12.31	10.10	11.24	17,373	1,712
NPX-Welcome Metaverse Contents Fund	Associate	Korea	Other financial services	2023.12.31	25.00	25.00	956	978
Hana Beyond Finance Fund	Associate	Korea	Other financial services	2023.12.31	26.67	26.67	36,422	23,507
Hana Prop-Tech Fund No.1 (*4)	Associate	Korea	Other financial services	2023.12.31	88.24	–	2,956	–
UNION TCB FUND II	Associate	Korea	Other financial services	2023.12.31	29.63	–	1,090	–
Artificial Photosynthesis Lab Co.,Ltd.	Associate	Korea	Natural science and engineering research and development	2023.12.31	36.24	–	1,595	–
No.1 KEBHANASTAY REITS Co., Ltd (*1)(*3)	Associate	Korea	Real estate development and supply	2023.10.31	14.86	–	4,082	–
MASHUP ANGELS VENTURE INVESTMENT 2	Associate	Korea	Other financial services	2023.12.31	21.82	–	1,173	–
All Together Korea Fund 5 (*4)	Associate	Korea	Other financial services	2023.12.31	100.00	100.00	10,541	10,245
Hana-New Deal K-Growth fund (*4)	Associate	Korea	Other financial services	2023.12.31	90.00	90.00	28,430	24,029
Defense Technology Innovation Private Investment Trust (*4)	Associate	Korea	Other financial services	2023.12.31	98.33	98.33	8,664	2,948

Classification	Type	Country	Industry	Reporting date	Ownership (%)		Book value	
					December 31, 2023	December 31, 2022	December 31, 2023	December 31, 2022
KTOP Short-term Financial Bond Active ETF	Associate	Korea	Other financial services	2023.12.31	45.21	–	61,152	–
KTOP 25-08 Corp(A+) Active ETF	Associate	Korea	Other financial services	2023.12.31	49.26	–	51,232	–
SHINJIN INTERNATIONAL CORPORATION (*2)(*3)	Associate	Korea	Manufacturing	2022.12.31	24.20	24.20	–	–
KG FASHION CO., Ltd. (*2)(*3)	Associate	Korea	Wholesale and retail	2022.12.31	20.55	20.55	–	–
PT Sinarmas Hana Finance (*5)	Joint venture	Indonesia	Financial services	2023.12.31	30.00	30.00	8,905	8,630
Total							3,280,152	2,958,288

(*1) These companies were included in investment in associates because the Group has significant influence over them by participating in the board of directors' meeting, the decision-making organization.

(*2) As of December 31, 2023, the application of the equity method has been suspended because the balance of the investment account is below "0."

(*3) As the consolidated financial statements as of December 31, 2023, could not be obtained, the most recent consolidated financial statements available from the closing date were used. The effect of significant transactions or events incurred between the end of the reporting period of the associate and that of the Group was reviewed and reflected.

(*4) As of December 31, 2023, the Group classified the investee as an associate investment stock because it could not exercise control over the investee.

(*5) Since more than one investor must act together to direct-related activities, the equity method was applied because the Group could not control the investee individually.

17-2 Condensed financial statements of associates and a joint venture as of December 31, 2023 and 2022, are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)	Dividends received
Bank of Jilin	118,285,793	110,043,991	8,241,802	4,842,002	403,240	407,432	13,864
Hana Equity Partners I, L.P.	320	5	315	4	(1)	(1)	—
Korea Credit Bureau	131,164	68,756	62,408	163,707	8,012	8,012	90
Templeton Hana Asset Management Co., Ltd.	20,261	5,862	14,399	8,068	2,556	2,556	396
CM International financing leases	1,440,757	1,407,320	33,437	14,465	16,399	15,439	—
Beijing Langzi Asset Management Co., Ltd.	487,591	26,865	460,726	33,829	23,694	23,938	1,178
Somesevit Corporation	37,277	121,113	(83,836)	7,076	(4,313)	(4,313)	—
Midan City Development Co., Ltd.	662,631	686,733	(24,102)	—	—	—	—
Company K Startup Winwin Fund	7,267	—	7,267	841	754	834	—
BSK-6 Patent Technology Investment Association	13,542	974	12,568	2,868	2,099	929	—
Hana – KVIC Unicorn Fund of Funds	104,375	379	103,996	1,933	1,554	2,527	—
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	5,142	—	5,142	45	3,580	3,580	14
BIDV (*)	123,349,695	115,974,974	7,374,721	10,117,882	818,792	846,650	—
Hana Micro Finance., Ltd.	135,926	66,598	69,328	23,102	(9,826)	(8,813)	—
HORIZON PRIVATE EQUITY FUND	137,079	2,694	134,385	88	(12,590)	(12,590)	8,777
Hana Ventures No.7 New Technology Business Investment Association	2,477	28	2,449	5	(2,808)	(2,808)	—
TossBank Corp.	25,738,679	24,230,274	1,508,405	1,260,974	(15,959)	71,837	—
Sinsa Station area Complex Development PFV Co., Ltd.	252,435	249,046	3,389	—	(723)	(723)	—
Hana-Capstone AI Platform Fund	80,910	440	80,470	4,754	321	321	—
Taurus Cloud Fund	35,751	3	35,748	—	(169)	(169)	—
Cheongna Medipolis PFV Co., Ltd.	188,434	16,682	171,752	—	(6,966)	(6,966)	—
NPX-Welcome Metaverse Contents fund	3,824	—	3,824	1	(88)	(88)	—
Hana Beyond Finance Fund	137,337	756	136,581	24,230	21,134	21,134	—
Hana Prop-Tech Fund No.1	3,350	—	3,350	1	(50)	(50)	—
UNION TCB FUND II	3,879	198	3,681	6	(369)	(369)	—
Artificial Photosynthesis Lab Co.,Ltd.	4,362	—	4,362	—	(207)	(207)	—
No.1 KEBHANASTAY REITS Co., Ltd	127,283	81,392	45,891	1,744	7,398	7,398	—
MASHUP ANGELS VENTURE INVESTMENT 2	5,378	—	5,378	—	(122)	(122)	—
All Together Korea Fund 5	10,543	1	10,542	227	222	222	210
Hana-New Deal K-Growth fund	32,049	107	31,942	148	(10)	(10)	—
Defense Technology Innovation Private Investment Trust	8,816	5	8,811	25	(186)	(186)	—
KTOP Short-term Financial Bond Active ETF	173,025	38,048	134,977	3,103	2,276	2,276	—
KTOP 25-08 Corp(A+) Active ETF	102,761	27	102,734	1,527	1,233	1,233	—
SHINJIN INTERNATIONAL CORPORATION	158	9,418	(9,260)	241	37	37	—
KG FASHION CO., Ltd.	3,042	2,936	106	3,241	(190)	(190)	—
PT Sinarmas Hana Finance	127,869	98,224	29,645	19,165	467	467	—

(*) This is financial information that reflects Purchased Price Allocation ("PPA") valuation and generally accepted accounting principles ("GAAP") adjustments in the financial information of BIDV.

<December 31, 2022>

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)	Dividends received
Bank of Jilin	99,356,297	92,088,037	7,268,260	4,248,227	409,505	362,211	—
Hana Equity Partners I, L.P.	321	5	316	2	(21)	(21)	120
Korea Credit Bureau	155,165	100,065	55,100	144,907	13,809	13,809	—
Templeton Hana Asset Management Co., Ltd.	18,839	4,824	14,015	8,129	2,483	2,483	198
CM International financing leases	1,660,081	1,638,839	21,242	27,978	(36,973)	(42,075)	—
Beijing Langzi Asset Management Co., Ltd.	481,800	34,098	447,702	47,954	23,524	23,951	1,708
Somesevit Corporation	40,850	120,360	(79,510)	6,042	(3,572)	(3,572)	—
Midan City Development Co., Ltd.	662,631	686,733	(24,102)	—	—	—	—
Company K Startup Winwin Fund	9,899	3	9,896	25,224	18,769	18,571	2,240
BSK-6 Patent Technology Investment Association	14,525	785	13,740	1,180	876	2,579	—
Hana – KVIC Unicorn Fund of Funds	108,429	361	108,068	1,440	1,077	612	—
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	10,279	—	10,279	58	(166)	(166)	27
BIDV (*)	114,300,714	108,381,237	5,919,477	8,100,357	1,071,496	1,008,754	—
Hana Micro Finance., Ltd.	200,074	121,933	78,141	36,447	5,255	(3,354)	—
HORIZON PRIVATE EQUITY FUND	226,400	5,453	220,947	37	(13,684)	(13,684)	8,045
Hana Ventures No.7 New Technology Business Investment Association	5,285	28	5,257	3	(113)	(113)	—
TossBank Corp.	23,398,698	22,432,155	966,543	755,905	(244,515)	(368,435)	—
Sinsa Station area Complex Development PFV Co., Ltd.	233,652	229,606	4,046	148	(956)	(956)	—
Hana-Capstone AI Platform Fund	80,570	420	80,150	142	(1,502)	(1,502)	—
Taurus Cloud Fund	34,675	3	34,672	—	(171)	(171)	—
Cheongna Medipolis PFV Co., Ltd.	15,373	138	15,235	—	(7,886)	(7,886)	—
NPX-Welcome Metaverse Contents fund	3,911	—	3,911	1	(89)	(89)	—
Hana Beyond Finance Fund	88,908	756	88,152	229	(1,848)	(1,848)	—
All Together Korea Fund 5	10,246	1	10,245	149	144	144	62
Hana-New Deal K-Growth fund	27,024	72	26,952	85	(21)	(21)	—
Defense Technology Innovation Private Investment Trust	3,002	5	2,997	2	(3)	(3)	—
SHINJIN INTERNATIONAL CORPORATION	138	9,436	(9,298)	221	34	34	—
KG FASHION CO., Ltd.	3,347	3,050	297	2,812	(262)	(262)	—
PT Sinarmas Hana Finance	113,883	85,812	28,071	17,664	2,496	2,496	—

(*) This is financial information that reflects PPA valuation and GAAP adjustments in the financial information of BIDV.

17-3 Changes in the investment in an associate and a joint venture for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Beginning balance	Acquisition	Dividend	Book value before valuation	Equity method valuation			Others	Disposal	Ending balance
					Share of profit (loss)	Impairment of equity method	Changes in equity			
Bank of Jilin	877,491	-	(13,864)	863,627	40,931	-	(5,416)	(2,181)	-	896,961
Hana Equity Partners I, L.P.	95	-	-	95	-	-	-	-	-	95
Korea Credit Bureau	5,503	-	(90)	5,413	749	-	-	-	-	6,162
Templeton Hana Asset Management Co., Ltd.	1,387	-	(396)	991	434	-	-	-	-	1,425
CM International financing leases	1,629	-	-	1,629	-	(1,089)	-	-	-	540
Beijing Langzi Asset Management Co., Ltd.	56,805	-	(1,178)	55,627	3,043	-	(179)	-	-	58,491
Somesevit Corporation	-	-	-	-	-	-	-	-	-	-
Midan City Development Co., Ltd.	-	-	-	-	-	-	-	-	-	-
Company K Startup Winwin Fund	2,355	-	-	2,355	(95)	-	20	-	(550)	1,730
BSK-6 Patent Technology Investment Association	2,748	-	-	2,748	409	-	(234)	-	(409)	2,514
Hana - KVIC Unicorn Fund of Funds	98,244	-	-	98,244	1,413	-	885	-	(6,000)	94,542
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	2,805	-	(14)	2,791	975	-	-	-	(2,364)	1,402
BIDV	1,641,419	-	-	1,641,419	122,820	-	(15,356)	-	-	1,748,883
Hana Micro Finance., Ltd.	18,199	-	-	18,199	(2,436)	-	252	-	-	16,015
HORIZON PRIVATE EQUITY FUND	49,491	-	(8,777)	40,714	(2,820)	-	(301)	-	(7,491)	30,102
Hana Ventures No.7 New Technology Business Investment Association	1,434	-	-	1,434	(766)	-	-	-	-	668
TossBank Corp.	87,566	50,677	-	138,243	(3,047)	-	8,762	2,942	-	146,900
Sinsa Station area Complex Development PFV Co., Ltd.	365	-	-	365	(59)	(306)	-	-	-	-
Hana-Capstone AI Platform Fund	29,287	-	-	29,287	117	-	-	-	-	29,404
Taurus Cloud Fund	9,416	91	-	9,507	240	-	-	-	-	9,747
Cheongna Medipolis PFV Co., Ltd.	1,712	16,628	-	18,340	(796)	-	(64)	(107)	-	17,373
NPX-Welcome Metaverse Contents fund	978	-	-	978	(22)	-	-	-	-	956
Hana Beyond Finance Fund	23,507	8,000	-	31,507	5,636	-	-	-	(721)	36,422
Hana Prop-Tech Fund No.1	-	3,000	-	3,000	(44)	-	-	-	-	2,956
UNION TCB FUND II	-	1,200	-	1,200	(110)	-	-	-	-	1,090
Artificial Photosynthesis Lab Co., Ltd.	-	1,666	-	1,666	(62)	-	(9)	-	-	1,595
No.1 KEBHANASTAY REITS Co., Ltd.	-	4,734	-	4,734	(652)	-	-	-	-	4,082
MASHUP ANGELS VENTURE INVESTMENT 2	-	1,200	-	1,200	(27)	-	-	-	-	1,173
All Together Korea Fund 5	10,245	210	(210)	10,245	296	-	-	-	-	10,541
Hana-New Deal K-Growth fund	24,029	4,500	-	28,529	(99)	-	-	-	-	28,430
Defense Technology Innovation Private Investment Trust	2,948	5,900	-	8,848	(184)	-	-	-	-	8,664
KTOP Short-term Financial Bond Active ETF	-	60,107	-	60,107	1,045	-	-	-	-	61,152
KTOP 25-08 Corp(A+) Active ETF	-	49,995	-	49,995	1,237	-	-	-	-	51,232
SHINJIN INTERNATIONAL CORPORATION	-	-	-	-	-	-	-	-	-	-
KG FASHION CO., Ltd.	-	-	-	-	-	-	-	-	-	-
PT Sinarماس Hana Finance	8,630	-	-	8,630	(13)	-	-	288	-	8,905
Total	2,958,288	207,908	(24,529)	3,141,667	168,113	(1,395)	(11,640)	942	(17,535)	3,280,152

<2022>

Classification	Beginning balance	Acquisition	Dividend	Book value before valuation	Equity method valuation			Others	Disposal	Ending balance
					Share of profit (loss)	Impairment of equity method	Changes in equity			
Bank of Jilin	853,878	-	-	853,878	49,900	-	(26,287)	-	-	877,491
Hana Equity Partners I, L.P.	221	-	(120)	101	(6)	-	-	-	-	95
Korea Credit Bureau	8,876	-	-	8,876	(3,373)	-	-	-	-	5,503
Templeton Hana Asset Management Co., Ltd.	1,271	-	(198)	1,073	314	-	-	-	-	1,387
CM International financing leases	2,149	-	-	2,149	-	(520)	-	-	-	1,629
Beijing Langzi Asset Management Co., Ltd.	56,830	-	(1,708)	55,122	2,957	-	(1,274)	-	-	56,805
Somesevit Corporation	-	-	-	-	-	-	-	-	-	-
Midan City Development Co., Ltd.	-	-	-	-	-	-	-	-	-	-
Company K Startup Winwin Fund	5,214	-	(2,240)	2,974	4,278	-	(47)	-	(4,850)	2,355
BSK-6 Patent Technology Investment Association	2,559	-	-	2,559	175	-	341	-	(327)	2,748
Hana - KVIC Unicorn Fund of Funds	72,529	25,130	-	97,659	1,008	-	(423)	-	-	98,244
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	2,877	-	(27)	2,850	(45)	-	-	-	-	2,805
BIDV	1,441,797	-	-	1,441,797	160,724	-	38,898	-	-	1,641,419
Hana Micro Finance., Ltd.	19,056	-	-	19,056	1,293	-	(2,150)	-	-	18,199
HORIZON PRIVATE EQUITY FUND	65,098	-	(8,045)	57,053	(3,217)	-	3,047	-	(7,392)	49,491
Hana Ventures No.7 New Technology Business Investment Association	1,465	-	-	1,465	(31)	-	-	-	-	1,434
TossBank Corp.	49,125	70,000	-	119,125	(23,808)	-	(10,973)	3,222	-	87,566
Sinsa Station area Complex Development PFV Co., Ltd.	451	-	-	451	(86)	-	-	-	-	365
Hana-Capstone AI Platform Fund	14,836	15,000	-	29,836	(549)	-	-	-	-	29,287
Taurus Cloud Fund	9,391	77	-	9,468	(52)	-	-	-	-	9,416
Cheongna Medipolis PFV Co., Ltd.	2,598	-	-	2,598	(886)	-	-	-	-	1,712
NPX-Welcome Metaverse Contents fund	1,000	-	-	1,000	(22)	-	-	-	-	978
Hana Beyond Finance Fund	-	24,000	-	24,000	(493)	-	-	-	-	23,507
All Together Korea Fund 5	10,070	62	(62)	10,070	175	-	-	-	-	10,245
Hana-New Deal K-Growth fund	1,778	22,500	-	24,278	(249)	-	-	-	-	24,029
Defense Technology Innovation Private Investment Trust	-	2,950	-	2,950	(2)	-	-	-	-	2,948
SHINJIN INTERNATIONAL CORPORATION	-	-	-	-	-	-	-	-	-	-
KG FASHION CO., Ltd.	-	-	-	-	-	-	-	-	-	-
PT Sinar Mas Hana Finance	7,900	-	-	7,900	1,008	-	-	(278)	-	8,630
Total	2,630,969	159,719	(12,400)	2,778,288	189,013	(520)	1,132	2,944	(12,569)	2,958,288

17-4 The Group discontinued recognizing its losses in shares since the balance of investments in associates was "0" and the losses that are accumulated as of December 31, 2023 and 2022, are as follows (Korean won in millions):

<December 31, 2023>

Company	Unrecognized amount of changes in equity	Accumulated unrecognized amount of changes in equity
Somresevit Corporation	(83)	(1,610)
Midan City Development Co., Ltd.	–	(523)
SHINJIN INTERNATIONAL COPORATION	9	17
KG Fashion Co., Ltd.	(39)	(93)
Total	(113)	(2,209)

<December 31, 2022>

Company	Unrecognized amount of changes in equity	Accumulated unrecognized amount of changes in equity
Somresevit Corporation	(69)	(1,527)
Midan City Development Co., Ltd.	–	(523)
SHINJIN INTERNATIONAL COPORATION	8	8
KG Fashion Co., Ltd.	(54)	(54)
Total	(115)	(2,096)

17-5 Details of adjustments from net assets of associates and a joint venture to carrying values of shares as of December 31, 2023 and 2022, are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	Net assets	Ownership (%)	Share of net assets	Goodwill, etc.	Carrying value
Bank of Jilin	8,241,802	10.76	886,818	10,143	896,961
Hana Equity Partners I, L.P	315	29.97	95	-	95
Korea Credit Bureau	62,408	9.00	5,618	544	6,162
Templeton Hana Asset Management Co., Ltd.	14,399	9.90	1,425	-	1,425
OM International financing leases	33,437	25.00	8,359	(7,819)	540
Beijing Langzi Asset Management Co., Ltd.	460,726	12.89	59,388	(897)	58,491
Somesevit Corporation	(83,836)	1.92	(1,610)	1,610	-
Midan City Development Co., Ltd.	(24,102)	2.17	(523)	523	-
Company K Startup Winwin Fund	7,267	23.81	1,730	-	1,730
BSK-6 Patent Technology Investment Association	12,568	20.00	2,514	-	2,514
Hana - KVIC Unicorn Fund of Funds	103,996	90.91	94,542	-	94,542
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	5,142	27.27	1,402	-	1,402
BIDV	7,374,721	15.00	1,106,209	642,674	1,748,883
Hana Micro Finance., Ltd.	69,328	25.00	17,333	(1,318)	16,015
HORIZON PRIVATE EQUITY FUND	134,385	22.40	30,102	-	30,102
Hana Ventures No.7 New Technology Business Investment Association	2,449	27.27	668	-	668
TossBank Corp.	1,508,405	8.99	135,606	11,294	146,900
Sinsa Station area Complex Development PFV Co., Ltd.	3,389	9.00	305	(305)	-
Hana-Capstone AI Platform Fund	80,470	36.54	29,404	-	29,404
Taurus Cloud Fund	35,748	27.06	9,673	74	9,747
Cheongna Medipolis PFV Co., Ltd	171,752	10.10	17,347	26	17,373
NPX-Welcome Metaverse Contents fund	3,824	25.00	956	-	956
Hana Beyond Finance Fund	136,581	26.67	36,422	-	36,422
Hana Prop-Tech Fund No.1	3,350	88.24	2,956	-	2,956
UNION TCB FUND II	3,681	29.63	1,090	-	1,090
Artificial Photosynthesis Lab Co.,Ltd.	4,362	36.24	1,581	14	1,595
No.1 KEBHANASTAY REITS Co., Ltd	45,891	14.86	6,819	(2,737)	4,082
MASHUP ANGELS VENTURE INVESTMENT 2	5,378	21.82	1,173	-	1,173
All Together Korea Fund 5	10,542	100.00	10,541	-	10,541
Hana-New Deal K-Growth fund	31,942	90.00	28,748	(318)	28,430
Defense Technology Innovation Private Investment Trust	8,811	98.33	8,664	-	8,664
KTOP Short-term Financial Bond Active ETF	134,977	45.21	61,023	129	61,152
KTOP 25-08 Corp(A+) Active ETF	102,734	49.26	50,607	625	51,232
SHINJIN INTERNATIONAL CORPORATION	(9,260)	24.20	(2,241)	2,241	-
KG FASHION CO., Ltd.	106	20.55	22	(22)	-
PT Sinarmas Hana Finance	29,645	30.00	8,894	11	8,905

<December 31, 2022>

Classification	Net assets	Ownership (%)	Share of net assets	Goodwill, etc.	Carrying value
Bank of Jilin	7,268,260	11.92	866,377	11,114	877,491
Hana Equity Partners I, L.P	316	29.97	95	-	95
Korea Credit Bureau	55,100	9.00	4,959	544	5,503
Templeton Hana Asset Management Co., Ltd.	14,015	9.90	1,387	-	1,387
CM International financing leases	21,242	25.00	5,311	(3,682)	1,629
Beijing Langzi Asset Management Co., Ltd.	447,702	12.89	57,709	(904)	56,805
Somesevit Corporation	(79,510)	1.92	(1,527)	1,527	-
Midan City Development Co., Ltd.	(24,102)	2.17	(523)	523	-
Company K Startup Winwin Fund	9,896	23.81	2,355	-	2,355
BSK-6 Patent Technology Investment Association	13,740	20.00	2,748	-	2,748
Hana - KVIC Unicorn Fund of Funds	108,068	90.91	98,244	-	98,244
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	10,279	27.27	2,805	-	2,805
BIDV	5,919,477	15.00	887,922	753,497	1,641,419
Hana Micro Finance., Ltd.	78,141	25.00	19,535	(1,336)	18,199
HORIZON PRIVATE EQUITY FUND	220,947	22.40	49,491	-	49,491
Hana Ventures No.7 New Technology Business Investment Association	5,257	27.27	1,434	-	1,434
TossBank Corp.	966,543	8.62	83,316	4,250	87,566
Sinsa Station area Complex Development PFV Co., Ltd.	4,046	9.00	365	-	365
Hana-Capstone AI Platform Fund	80,150	36.54	29,287	-	29,287
Taurus Cloud Fund	34,672	27.06	9,382	34	9,416
Cheongna Medipolis PFV Co., Ltd	15,235	11.24	1,712	-	1,712
NPX-Welcome Metaverse Contents fund	3,911	25.00	978	-	978
Hana Beyond Finance Fund	88,152	26.67	23,507	-	23,507
All Together Korea Fund 5	10,245	100.00	10,245	-	10,245
Hana-New Deal K-Growth fund	26,952	90.00	24,258	(229)	24,029
Defense Technology Innovation Private Investment Trust	2,997	98.33	2,948	-	2,948
SHINJIN INTERNATIONAL CORPORATION	(9,298)	24.20	(2,250)	2,250	-
KG FASHION CO., Ltd.	297	20.55	61	(61)	-
PT Sinarmas Hana Finance	28,071	30.00	8,421	209	8,630

17-6 Details of investment shares in marketable associates and a joint venture as of December 31, 2023 and 2022, are as follows (Korean won in millions):

<December 31, 2023>

Company	Market price	Price per share (in Korean won)
BIDV	1,974,243	2,309

<December 31, 2022>

Company	Market price	Price per share (in Korean won)
BIDV	1,572,811	2,073

17-7 A company that the Group holds more than 20% of shares, but excluded from investments in associates, as of December 31, 2023, is as follows:

<December 31, 2023>

Company Name	Country	Industry	Ownership (%)
COLORART (*)	Korea	Sign and advertisement manufacturing	20.93

(*) The Group holds more than 20% of shares, but excluded the company from investment in associates due to its limited control over the company because of its corporate workout.

There is no company that the Group holds more than 20% of shares, but is excluded from investments in associates, as of December 31, 2022.

Investment trusts whose significant influence on related activities is limited by trust contracts are excluded from investment stocks in associates.

18. Property, plant and equipment

18-1 Property, plant and equipment as of December 31, 2023 and 2022, consist of the following (Korean won in millions):

<December 31, 2023>

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	873,584	–	(3,786)	–	869,798
Buildings	988,291	(325,864)	(10,203)	–	652,224
Leasehold improvements	340,431	(274,428)	–	–	66,003
Equipment and vehicles	936,718	(736,238)	–	(43)	200,437
Construction in progress	10,484	–	–	–	10,484
Others	31,258	–	–	–	31,258
Right-of-use assets – real estate	1,409,240	(843,956)	–	–	565,284
Right-of-use assets – equipment and vehicles	30,507	(14,472)	–	–	16,035
Right-of-use assets – others	6,043	(2,356)	–	–	3,687
Total	4,626,556	(2,197,314)	(13,989)	(43)	2,415,210

<December 31, 2022>

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	880,392	–	(3,786)	–	876,606
Buildings	959,580	(299,508)	(10,215)	–	649,857
Leasehold improvements	324,237	(263,184)	–	–	61,053
Equipment and vehicles	827,523	(683,660)	–	(78)	143,785
Construction in progress	8,511	–	–	–	8,511
Others	31,258	–	–	–	31,258
Right-of-use assets – real estate	1,288,611	(653,559)	–	–	635,052
Right-of-use assets – equipment and vehicles	28,893	(13,700)	–	–	15,193
Right-of-use assets – others	5,560	(861)	–	–	4,699
Total	4,354,565	(1,914,472)	(14,001)	(78)	2,426,014

18-2 Changes in property, plant and equipment for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Beginning balance	Acquisition	Disposal	Depreciation	Transfers	Others	Ending balance
Land	876,606	2,623	(271)	–	(9,189)	29	869,798
Buildings	649,857	51,010	(773)	(34,038)	(13,797)	(35)	652,224
Leasehold improvements	61,053	28,481	(455)	(23,242)	–	166	66,003
Equipment and vehicles	143,863	149,725	(649)	(93,607)	528	620	200,480
Construction in progress	8,511	9,924	–	–	(3,860)	(4,091)	10,484
Others	31,258	–	–	–	–	–	31,258
Government grants	(78)	–	–	35	–	–	(43)
Right-of-use assets – real estate	635,052	156,246	(5,375)	(220,968)	–	329	565,284
Right-of-use assets – equipment and vehicles	15,193	9,085	(790)	(7,862)	–	409	16,035
Right-of-use assets – others	4,699	838	(480)	(1,636)	–	266	3,687
Total	2,426,014	407,932	(8,793)	(381,318)	(26,318)	(2,307)	2,415,210

<2022>

Classification	Beginning balance	Acquisition	Disposal	Depreciation	Transfers	Impairment loss	Others	Ending balance
Land	691,423	–	(1,377)	–	186,630	–	(70)	876,606
Buildings	497,737	28,387	(1,486)	(32,452)	158,013	(12)	(330)	649,857
Leasehold improvements	60,967	21,616	(1,162)	(22,799)	2,142	–	289	61,053
Equipment and vehicles	135,809	76,872	(517)	(68,992)	858	–	(167)	143,863
Construction in progress	9,772	249,113	(261)	–	(249,649)	–	(464)	8,511
Others	46,287	–	(15,029)	–	–	–	–	31,258
Government grants	(86)	(44)	–	52	–	–	–	(78)
Right-of-use assets – real estate	548,398	291,957	(7,064)	(197,659)	–	–	(580)	635,052
Right-of-use assets – equipment and vehicles	13,326	10,159	(724)	(7,134)	–	–	(434)	15,193
Right-of-use assets – others	808	3,933	(62)	(1,038)	–	–	1,058	4,699
Total	2,004,441	681,993	(27,682)	(330,022)	97,994	(12)	(698)	2,426,014

19. Investment properties

19-1 Details of investment properties as of December 31, 2023 and 2022, are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	467,073	–	(3,125)	–	463,948
Buildings	386,860	(172,175)	(1,225)	(1,885)	211,575
Total	853,933	(172,175)	(4,350)	(1,885)	675,523

◁December 31, 2022▷

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	457,439	–	(3,125)	–	454,314
Buildings	367,958	(153,237)	(1,225)	(2,868)	210,628
Total	825,397	(153,237)	(4,350)	(2,868)	664,942

19-2 Changes in investment properties for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Beginning balance	Disposal	Depreciation	Transfer (*)	Ending balance
Land	454,314	(744)	–	10,378	463,948
Buildings	213,496	(1,206)	(14,770)	15,940	213,460
Government grants	(2,868)	–	983	–	(1,885)
Total	664,942	(1,950)	(13,787)	26,318	675,523

(*) The amount represents the change in the carrying amount of investment properties held by the Group due to the change in the ratio of lease occupancy.

<2022>

Classification	Beginning balance	Acquisition	Disposal	Depreciation	Transfer (*)	Ending balance
Land	407,058	–	(6,111)	–	53,367	454,314
Buildings	385,887	–	(7,690)	(13,340)	(151,361)	213,496
Government grants	(2,256)	(1,493)	–	881	–	(2,868)
Total	790,689	(1,493)	(13,801)	(12,459)	(97,994)	664,942

(*) The amount represents the change in the carrying amount of investment properties held by the Group due to the change in the ratio of lease occupancy.

19-3 Details of valuation techniques for measuring investment property and inputs used in the measurement as of December 31, 2023 and 2022 are as follows (Korean won in millions):

Classification	Fair value (*)		Description of the valuation techniques	Inputs used in the fair value measurement
	December 31, 2023	December 31, 2022		
Land and buildings	1,027,340	1,052,023	Appraised value of land reference method and estimates based on cost method	Appraised value of land and refinancing cost

(*) The fair value of investment property is classified as Level 3 of fair value hierarchy as it reflects the most recent market transaction price, followed by individual third-party transaction condition, and significant input factor, which is not predictable.

19-4 Rental income and operating expenses arising from the Group's investment properties for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Rental income	10,395	9,608
Operating cost directly related to investment properties that generate rental income	544	670

20. Intangible assets

20-1 Details of intangible assets as of December 31, 2023 and 2022, are as follows (Korean won in millions):

<December 31, 2023>

Classification	Acquisition cost	Accumulated amortization	Accumulated impairment loss	Government grants	Book value
Goodwill	892	—	—	—	892
Industrial proprietary rights	2,800	(2,228)	—	—	572
Core deposits	5,357	(3,630)	—	—	1,727
Software	353,366	(245,864)	—	—	107,502
Systems development costs	1,142,380	(962,424)	—	(52)	179,904
Memberships	27,295	—	(2,933)	—	24,362
Others	334,197	(220,251)	(25)	—	113,921
Total	1,866,287	(1,434,397)	(2,958)	(52)	428,880

<December 31, 2022>

Classification	Acquisition cost	Accumulated amortization	Accumulated impairment loss	Government grants	Book value
Goodwill	892	—	—	—	892
Industrial proprietary rights	2,588	(1,982)	—	—	606
Core deposits	5,265	(3,187)	—	—	2,078
Software	297,032	(214,775)	—	—	82,257
Systems development costs	1,081,185	(886,280)	—	(83)	194,822
Memberships	25,948	—	(2,933)	—	23,015
Others	273,367	(190,915)	(15)	—	82,437
Total	1,686,277	(1,297,139)	(2,948)	(83)	386,107

20-2 Changes in the carrying amount of intangible assets for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Beginning balance	Acquisition	Disposal	Amortization	Impairment loss	Others	Ending balance
Goodwill	892	–	–	–	–	–	892
Industrial proprietary rights	606	206	–	(246)	–	6	572
Core deposits	2,078	–	–	(387)	–	36	1,727
Software	82,257	56,375	–	(31,175)	–	45	107,502
Systems development costs	194,905	57,774	–	(75,406)	–	2,683	179,956
Memberships	23,015	2,044	(666)	–	–	(31)	24,362
Others (*)	82,437	58,150	(20)	(29,475)	(10)	2,839	113,921
Government grants	(83)	–	–	31	–	–	(52)
Total	386,107	174,549	(686)	(136,658)	(10)	5,578	428,880

(*) Of the other intangible asset amortization costs, ₩27,686 million is included in other operating expenses.

<2022>

Classification	Beginning balance	Acquisition	Disposal	Amortization	Impairment loss	Others	Ending balance
Goodwill	892	–	–	–	–	–	892
Industrial proprietary rights	513	398	–	(311)	–	6	606
Core deposits	2,316	–	–	(383)	–	145	2,078
Software	81,256	27,877	–	(26,844)	–	(32)	82,257
Systems development costs	173,806	87,655	–	(66,830)	–	274	194,905
Memberships	20,449	2,663	(15)	–	(220)	138	23,015
Others (*)	77,454	32,963	–	(28,232)	–	252	82,437
Government grants	(115)	–	–	32	–	–	(83)
Total	356,571	151,556	(15)	(122,568)	(220)	783	386,107

(*) Of the other intangible asset amortization costs, ₩26,977 million is included in other operating expenses.

21. Non-current assets held for sale

Details of non-current assets held for sale as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Acquisition cost (*)	40,602	36,423
Accumulated impairment loss	(124)	—
Book value	40,478	36,423
Net fair value	40,478	36,423

(*) Acquisition cost is presented as net of accumulated depreciation before classification as non-current assets held for sale.

Non-current assets held for sale are composed of 124 collaterals acquired for the purpose of repayment of loans and one other whose sale is currently in progress as of December 31, 2023.

22. Other assets and merchant banking account assets

22-1 Details of other assets as of December 31, 2023 and 2022, are as follows
(Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Guarantee deposits paid	638,872	632,878
Accounts receivable	11,290,946	6,615,170
Accrued income	1,904,053	1,574,847
Prepaid expenses	158,133	113,074
Suspense payments	383,972	269,386
Expenditures	2,483	1,873
Deposit money to court	9,193	8,783
Domestic exchange settlement debit	4,193,365	4,223,350
Other miscellaneous assets	64,495	78,015
Allowance for other assets	(11,503)	(11,421)
Total	18,634,009	13,505,955

22-2 Changes in the allowance for other assets for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Beginning balance	11,421	9,241
Provision for allowance for possible losses	4,117	6,280
Write-offs	(540)	(860)
Sales of non-performing loans, etc.	(420)	(163)
Collection of loans written off in prior year	495	1,025
Interest income on impaired assets	(1)	3
Exchange rate fluctuation and others	(3,569)	(4,105)
Ending balance	11,503	11,421

22-3 Details of merchant banking account assets as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification		December 31, 2023	December 31, 2022
On-balance-sheet items			
Merchant banking account-loans at FVTPL		199,767	198,790
Merchant banking account-debt securities at FVTPL		3,440,806	3,415,666
CMA assets	Debt securities at FVTPL	997,251	1,016,905
Total		4,637,824	4,631,361
Off-balance-sheet item			
Commitment		770,000	620,000

23. Deposits

23-1 Details of deposit liabilities as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Demand deposits		
Demand deposits in Korean won	16,130,967	14,732,552
Demand deposits in foreign currency	31,630,980	40,871,143
Subtotal	47,761,947	55,603,695
Time and savings deposits		
Time and savings deposits in Korean won (*)	278,789,580	266,881,680
Time and savings deposits in foreign currency	23,665,607	24,320,573
Subtotal	302,455,187	291,202,253
Certificate of deposits	19,532,319	13,052,533
Total	369,749,453	359,858,481

(*) Time and savings deposits in Korean won include savings deposits (₩40,213,612 million as of December 31, 2023, and ₩39,861,040 million as of December 31, 2022) and corporate savings deposits (₩58,318,632 million as of December 31, 2023, and ₩57,322,227 million as of December 31, 2022).

23-2 Allocations of deposit liabilities by the customer as of December 31, 2023 and 2022 are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Individuals	122,951,894	112,111,078
Corporations	123,338,987	129,975,988
Other banks	22,490,050	21,293,082
Public institutions	21,830,459	16,398,077
Other financial institutions	46,902,752	44,929,310
Government	7,714,009	8,206,272
Non-profit corporations	16,107,455	13,812,098
Foreign organizations	2,503,999	3,049,951
Others	5,909,848	10,082,625
Total	369,749,453	359,858,481

24. Financial liabilities at FVTPL

24-1 Details of financial liabilities at FVTPL as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Securities borrowed	452,426	323,661
Derivative liabilities held for trading	6,042,066	10,742,577
Total	6,494,492	11,066,238

24-2 Details of financial liabilities designated at FVTPL as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Deposits	173,339	162,069
Debentures in Korean won	61,379	—
Total	234,718	162,069

Financial liabilities are at FVTPL in order to eliminate or significantly reduce a measurement or recognition inconsistency.

24-3 Difference between the book value and maturity amount of the financial liabilities designated at FVTPL as of December 31, 2023 and 2022, is as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Book value	234,718	162,069
Repayment amount at maturity	270,000	210,000
Difference	(35,282)	(47,931)

25. Borrowings

Details of borrowings as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Lender	Annual interest rate (%)	December 31, 2023	December 31, 2022
Borrowings in Korean won				
BOK borrowings	BOK	0.25~2.00	3,420,958	5,085,245
Government borrowings	Korea Development Bank, etc.	0.50~5.16	2,155,315	2,061,794
Other borrowings	Korea Energy Management Corporation, etc.	0.00~3.60	4,843,543	3,584,732
Subtotal			10,419,816	10,731,771
Borrowings denominated in foreign currencies				
Bank overdrafts	Foreign banks, etc.	0.00~20.13	268,487	380,662
Other borrowings	Wells Fargo, HSBC, etc.	0.00~7.70	9,250,262	9,664,760
Subtotal			9,518,749	10,045,422
Call money				
Call money in foreign currencies	MIZUHO Bank, etc.	0.07~7.40	934,111	970,661
Bonds sold under repurchase agreements				
Bonds sold under repurchase agreements in Korean won	General customers	0.00	30	30
Bonds sold under repurchase agreements in foreign currencies	Citi	6.03~6.50	1,140,907	487,702
Subtotal			1,140,937	487,732
Others				
Bills sold	General customers	0.00~4.06	27,410	26,063
Deferred origination costs			(7,109)	(5,052)
Total			22,033,914	22,256,597

26. Debentures

Details of debentures as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Lender	Annual interest rate (%)	December 31, 2023	December 31, 2022
Debentures in Korean won				
Debentures	Institutions	1.13~4.52	17,070,000	16,330,000
Subordinated debentures	Institutions, etc.	2.14~4.76	3,321,124	4,071,139
Net loss (gain) on fair value hedges (current period)			7,188	(26,241)
Net gain on fair value hedges (prior to previous fiscal year)			(36,738)	(10,497)
Less present value discount			(20,223)	(5,804)
Subtotal			20,341,351	20,358,597
Debentures in foreign currencies				
Debentures	Institutions	0.01~6.47	5,636,602	5,115,126
Subordinated debentures	Institutions, etc.	4.25~4.38	773,640	1,042,641
Net loss (gain) on fair value hedges (current period)			74,161	(290,369)
Net loss (gain) on fair value hedges (prior to previous fiscal year)			(271,131)	15,583
Less present value discount			(12,444)	(8,239)
Subtotal			6,200,828	5,874,742
Total			26,542,179	26,233,339

27. Net defined benefit liabilities (assets)

27-1 Details of net defined benefit liabilities (assets)

Details of net defined benefit liabilities (assets) as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Present value of defined benefit obligation	2,221,636	1,996,586
Fair value of plan assets	(2,048,061)	(2,064,640)
Net defined benefit liabilities	173,575	9,106
Net defined benefit assets	–	77,160

27-2 Defined benefit obligation

27-2-1 Changes in the present value of defined benefit obligation

Changes in the present value of defined benefit obligation for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Beginning balance	1,996,586	2,027,138
Current service cost	128,683	138,218
Interest cost	98,760	49,398
Remeasurements	181,634	(19,141)
Benefits paid	(183,794)	(198,401)
Changes due to transfers between affiliates	(441)	(765)
Others	208	139
Ending balance	2,221,636	1,996,586

27-2-2 Total costs recognized in accordance with defined benefit plans

Total costs incurred in relation to defined benefit pension plans for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Current service cost	128,683	138,218
Interest cost	98,760	49,398
Interest income on plan assets	(100,800)	(43,270)
Total	126,643	144,346

27-2-3 Weighted-average duration of defined benefit obligation as of December 31, 2023 and 2022 is 7.60 years and 7.66 years, respectively.

27-3 Actuarial assumptions

27-3-1 Principal assumptions for the actuarial valuation method as of December 31, 2023 and 2022 are as follows:

<December 31, 2023>

Classification	Rate(%)	Content
Demographic assumptions		
Death rate	0.003~0.063	Korea Insurance Development Institute
Retirement rate	7.00	—
Financial assumptions		
Wage growth rate	5.80	Average of past 5 years
Discount rate	4.25	Return rate of AAA corporate bond

<December 31, 2022>

Classification	Rate(%)	Content
Demographic assumptions		
Death rate	0.003~0.063	Korea Insurance Development Institute
Retirement rate	6.10	—
Financial assumptions		
Wage growth rate	5.80	Average of past 5 years
Discount rate	5.15	Return rate of AAA corporate bond

27-3-2 Changes in the present values of defined benefit liability due to changes in the principal actuarial assumptions as of December 31, 2023 and 2022 are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	Present value of defined benefit liability	1%point increase	1%point decrease
Discount rate	2,221,636	2,045,775	2,365,833
Wage growth rate	2,221,636	2,367,760	2,041,468

◁December 31, 2022▷

Classification	Present value of defined benefit liability	1%point increase	1%point decrease
Discount rate	1,996,586	1,837,975	2,124,835
Wage growth rate	1,996,586	2,127,792	1,833,138

27-4 Plan assets

27-4-1 Changes in the fair value of plan assets for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Beginning balance	2,064,640	1,850,061
Employer contributions	625	308,653
Interest income on plan assets	100,800	43,270
Remeasurements of the net defined benefit liabilities	(20,558)	(10,300)
Benefit paid	(97,235)	(126,204)
Changes due to transfers between affiliates	(211)	(840)
Ending balance	2,048,061	2,064,640

27-4-2 Details of plan assets

Details of plan assets as of December 31, 2023 and 2022 are as follows (Korean won in millions):

<December 31, 2023>

Classification	Active market price exists	Active market price inexists	Total
Time deposits	—	847,883	847,883
Others(*)	—	1,200,178	1,200,178
Total	—	2,048,061	2,048,061

(*) Guaranteed income contracts and equity-linked bonds are included, etc.

<December 31, 2022>

Classification	Active market price exists	Active market price inex ists	Total
Time deposits	–	2,060,339	2,060,339
Others	–	4,301	4,301
Total	–	2,064,640	2,064,640

27-4-3 The Group expects to contribute ₩130,561 million next year in relation to the defined benefit plans.

27-5 Remeasurements of the net defined benefit liability

Remeasurements of the net defined benefit liability as of December 31, 2023 and 2022 are as follows (Korean won in millions):

Classification	2023	2022
Actuarial gains and losses		
Effects on changing financial assumptions	(118,245)	425,234
Effects on changing demographic assumptions	–	(337,902)
Others	(63,389)	(68,191)
Subtotal	(181,634)	19,141
Return on plan assets		
Actual return on plan assets	80,242	32,971
Amount included in net interest of net defined benefit liability	(100,800)	(43,271)
Subtotal	(20,558)	(10,300)
Total	(202,192)	8,841

28. Contingent liabilities, agreements and provisions

28-1 Details of provisions as of December 31, 2023 and 2022, are as follows
(Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Provision for payment guarantees		
Financial guarantee contracts (*)	466	449
Non-financial guarantee contracts	71,609	81,450
Bills endorsed	2	13
Subtotal	72,077	81,912
Provision for unused commitments	73,065	56,480
Other provisions		
Provision for restoration	57,976	51,596
Provision for lawsuits	3,400	43,215
Others	554,055	331,775
Subtotal	615,431	426,586
Total	760,573	564,978

(*) The Group recognizes the amount exceeding the unamortized amount of the initial fair value at subsequent measurement of the financial guarantee contracts as provisions for payment guarantees. The Group recognizes the unamortized amount as financial guarantee contract liabilities in the amount of ₩18,607 million and ₩14,843 million as of December 31, 2023 and 2022, respectively.

28-2 Changes in provision for unused commitments for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Unused commitments			Total
	12-month ECL	Lifetime ECL		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	35,404	19,107	1,969	56,480
Transfer to 12-month ECL	1,298	(1,273)	(25)	–
Transfer to non-credit-impaired loan	(972)	979	(7)	–
Transfer to credit-impaired loan	(7)	(14)	21	–
Provision (reversal of)	21,912	(1,589)	93	20,416
Changes in exchange rates	(3,833)	2	–	(3,831)
Ending balance	53,802	17,212	2,051	73,065

<2022>

Classification	Unused commitments			Total
	12-month ECL	Lifetime ECL		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	41,221	19,270	1,388	61,879
Transfer to 12-month ECL	1,488	(1,463)	(25)	–
Transfer to non-credit-impaired loan	(860)	869	(9)	–
Transfer to credit-impaired loan	(10)	(10)	20	–
Provision (reversal of)	(4,266)	324	595	(3,347)
Changes in exchange rates	(2,169)	117	–	(2,052)
Ending balance	35,404	19,107	1,969	56,480

28-3 Changes in provision for financial guarantee contracts for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Financial guarantee contracts			Total
	12-month ECL	Lifetime ECL		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	172	277	–	449
Transfer to 12-month ECL	6	(6)	–	–
Transfer to non-credit-impaired loan	(2)	2	–	–
Transfer to credit-impaired loan	–	–	–	–
Provision (reversal of)	229	(233)	–	(4)
Changes in exchange rates	8	13	–	21
Ending balance	413	53	–	466

<2022>

Classification	Financial guarantee contracts			Total
	12-month ECL	Lifetime ECL		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	133	14	—	147
Transfer to 12-month ECL	1	(1)	—	—
Transfer to non-credit-impaired loan	(11)	11	—	—
Transfer to credit-impaired loan	—	—	—	—
Provision	46	253	—	299
Changes in exchange rates	3	—	—	3
Ending balance	172	277	—	449

28-4 Changes in other provisions for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Beginning balance	Provision (reversal of)	Used	Others	Ending balance
Non-financial payment guarantees	81,463	(12,937)	–	3,085	71,611
Other provisions					
Provision for restoration	51,596	5,808	(1,875)	2,447	57,976
Provision for lawsuits	43,215	(23,106)	(16,711)	2	3,400
Others	331,775	260,324	(38,044)	–	554,055
Subtotal	426,586	243,026	(56,630)	2,449	615,431
Total	508,049	230,089	(56,630)	5,534	687,042

<2022>

Classification	Beginning balance	Provision (reversal of)	Used	Others	Ending balance
Non-financial payment guarantees	34,902	44,623	–	1,938	81,463
Other provisions					
Provision for restoration	54,894	(1,314)	(2,960)	976	51,596
Provision for lawsuits	77,734	(19,236)	(15,954)	671	43,215
Others	289,408	64,238	(21,428)	(443)	331,775
Subtotal	422,036	43,688	(40,342)	1,204	426,586
Total	456,938	88,311	(40,342)	3,142	508,049

28-5 Details of financial and payment guarantees as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Guarantee balance	
	December 31, 2023	December 31, 2022
Financial guarantee contracts in Korean won		
Payment guarantees for issuance of debentures	94,500	94,500
Payment guarantees for collateral for loans	44,402	43,130
Payment guarantees for purchasing loans	356,998	307,369
Subtotal	495,900	444,999
Financial guarantee contracts in foreign currencies		
Local financial payment guarantees	2,256	2,725
Confirmed payment guarantees in Korean won	2,447,238	2,446,127
Confirmed payment guarantees in foreign currencies		
Acquisition of letter of credit	2,115,715	2,213,888
Acceptance of letter of guarantees	114,864	101,659
Others	12,719,947	10,215,065
Subtotal	14,950,526	12,530,612
Contingent payment guarantees		
Letters of credit	4,148,521	4,080,758
Others	1,988,457	1,575,953
Subtotal	6,136,978	5,656,711
Bills endorsed	753	10,707
Total	24,033,651	21,091,881

28-6 Commitments

Details of unused commitments as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Unused commitments balance	
	December 31, 2023	December 31, 2022
Commitments on loans in Korean won	65,144,227	60,462,709
Commitments on loans in foreign currencies	30,837,779	28,960,160
Commitments on credit lines on asset-backed securities (*)	118,300	85,200
Commitments on purchase of securities (*)	13,625,533	11,875,336
Commitments on discounted notes from merchant banking	770,000	620,000
Total	110,495,839	102,003,405

(*) The financial guarantee contracts as of December 31, 2023 and 2022, amount to ₩13,731,626 million and ₩10,565,130 million, respectively.

28-7 Lawsuits

As of December 31, 2023, the Group is involved in 390 lawsuits as a plaintiff and 181 lawsuits as a defendant. The aggregate amounts of claims as plaintiff and defendant are ₩371,186 million and ₩305,077 million, respectively. The Group recognizes provisions in consideration of the likelihood of winning a lawsuit.

The Group's material lawsuits in progress as a defendant are as follows (Korean won in millions):

Plaintiff	Amount	Status of lawsuit		Content
		First trial	On appeal	
F*****Bankruptcy administrator	43,315	Won	In progress (Second trial)	Return of an illicit gain
MT*****	25,271	In progress	–	Return of frozen funds
****Cooperation Co., Ltd.	15,000	In progress	–	Return of an illicit gain
**** **Ward Co., Ltd.	10,000	In progress	–	Compensation for damages
****Securities Co., Ltd.	10,000	In progress	–	Compensation for damages

On the other hand, although not included in the list above, ** bank in China has filed an additional execution for 183 million yuan in relation to the default of *** financing leases against the Group at Shanghai Financial Court in December 2023. As of December 31, 2023, it is not possible to reasonably predict the financial impact on the Group's consolidated financial statements.

28-8 Due to the decline of the Hong Kong HIndex, losses on Hong Kong H Index-linked securities sold by the Group are expected. As of December 31, 2023, the Group cannot reasonably predict and estimate the financial impact on the Group's financial statements. In addition, an investigation on unfair collaborative practices of four major commercial banks, including the Group, is underway by the Fair Trade Commission and the Group cannot reasonably predict the result.

28-9 In connection with the Ukraine crisis in February 2022, international sanctions against the Russian Federation of the international community could affect companies and individuals subject to sanctions, as well as companies, industries and economies that do business directly or indirectly with Russia. As of the settlement date, the Bank expects to have a financial impact on the business of KEB Hana Bank Russia, a subsidiary of Russia, but cannot reasonably predict the estimate.

29. Other liabilities and merchant banking account liabilities

29-1 Details of other liabilities as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Accounts payable from trust accounts	7,019,423	7,895,817
Foreign exchange settlement credits	941,693	937,940
Domestic exchange settlement credits	7,071,891	5,503,827
Accounts payable	11,692,542	6,936,315
Accrued expenses	4,551,927	2,758,991
Unearned revenue	136,764	127,583
Deposits for letters of guarantees and others	553,160	1,877,691
Suspense payables	263,320	75,021
Taxes withheld	183,385	129,209
Security subscriptions	40,884	281,894
Accounts for agency businesses	201,001	190,874
Liability incurred by agency relationship	2,505,394	2,869,079
Lease liabilities	593,475	667,779
Financial guarantee contracts	18,607	14,843
Other liabilities	32,476	13,176
Total	35,805,942	30,280,039

29-2 Details of merchant banking account liabilities as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Merchant banking account deposits	4,153,035	3,666,199
Other merchant banking account liabilities (*)	1,662	1,074
Total	4,154,697	3,667,273

(*) Including accrued expenses

29-3 Details of lease liabilities as of December 31, 2023 and 2022, are as follows
(Korean won in millions):

◁December 31, 2023▷

Classification	Face amount	Present value discount	Book value
Real estate for business purpose	657,443	(85,050)	572,393
Equipment and vehicles	17,788	(915)	16,873
Other assets	4,391	(182)	4,209
Total	679,622	(86,147)	593,475

◁December 31, 2022▷

Classification	Face amount	Present value discount	Book value
Real estate for business purpose	731,006	(83,957)	647,049
Equipment and vehicles	16,542	(709)	15,833
Other assets	5,136	(239)	4,897
Total	752,684	(84,905)	667,779

29-4 Changes in lease liabilities for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Beginning balance	Increase	Depreciation	Paid (*)	Others	Ending balance
Real estate for business purpose	647,049	120,894	23,294	(214,789)	(4,055)	572,393
Equipment and vehicles	15,833	9,697	496	(9,118)	(35)	16,873
Other assets	4,897	671	140	(1,415)	(84)	4,209
Total	667,779	131,262	23,930	(225,322)	(4,174)	593,475

(*) Total cash outflow related to lease liabilities for the year ended December 31, 2023, is ₩225,214 million.

<2022>

Classification	Beginning balance	Increase	Depreciation	Paid (*)	Others	Ending balance
Real estate for business purpose	547,794	296,367	15,440	(206,537)	(6,015)	647,049
Equipment and vehicles	13,334	10,077	311	(7,768)	(121)	15,833
Other assets	434	5,444	106	(928)	(159)	4,897
Total	561,562	311,888	15,857	(215,233)	(6,295)	667,779

(*) Total cash outflow related to lease liabilities for the year ended December 31, 2022, is ₩215,137 million.

29-5 Details of contractual cash flows before discounting the lease liabilities by remaining maturity as of December 31, 2023 and 2022, are as follows
(Korean won in millions):

〈December 31, 2023〉

Classification	Less than 1 month	1 month ~ 3 months	3 months ~ 6 months	6 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
Real estate for business purpose	18,348	27,165	39,453	70,823	280,895	220,759	657,443
Equipment and vehicles	676	1,346	1,952	3,465	10,349	–	17,788
Other assets	247	337	585	1,100	2,122	–	4,391
Total	19,271	28,848	41,990	75,388	293,366	220,759	679,622

〈December 31, 2022〉

Classification	Less than 1 month	1 month ~ 3 months	3 months ~ 6 months	6 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
Real estate for business purpose	17,783	33,018	48,965	91,886	315,184	224,170	731,006
Equipment and vehicles	643	1,230	1,708	3,144	9,817	–	16,542
Other assets	184	235	418	852	3,447	–	5,136
Total	18,610	34,483	51,091	95,882	328,448	224,170	752,684

30. Capital stock and other paid-in capital

30-1 Details of capital stock as of December 31, 2023 and 2022, are as follows (Korean won in millions and shares):

Classification	December 31, 2023	December 31, 2022
Number of shares authorized	2,000,000,000	2,000,000,000
Par value per share (in Korean won)	5,000	5,000
Number of shares issued	1,071,915,717	1,071,915,717
Common stock	5,359,578	5,359,578

30-2 Details of capital surplus and capital adjustments as of December 31, 2023 and 2022, are as follows (Korea won in millions):

Classification	December 31, 2023	December 31, 2022
Capital surplus (*)	6,161,303	6,159,820
Capital adjustments		
Stock option	–	17
Others	(37,921)	(37,703)
Subtotal	(37,921)	(37,686)
Total	6,123,382	6,122,134

(*) As of December 31, 2023, the Group's capital surplus includes the amount recognized at the time of the business combination under common control.

30-3 Details of hybrid securities as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	Issuance date	Expiry date	Annual interest rate (%)	December 31, 2023	December 31, 2022
Hybrid securities in Korean won	2013-10-25	2043-10-25	5.45	–	179,737
Hybrid securities in foreign currencies	2021-10-19	–	3.50	353,738	353,738
Total				353,738	533,475

The Group can repay the above hybrid securities early for five years from the issuance date or every six months(the date of interest payment) after five years if it obtains approval from the Director of the Financial Supervisory Service. Meanwhile, the Group has repaid hybrid securities in Korean won early on October 25, 2023.

31. Accumulated other comprehensive income (loss)

Changes in accumulated other comprehensive income (loss) for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Beginning balance	Increase (decrease) (excluding reclassification and transfer of retained earnings)	Transfer of retained earnings	Changes in equity in subsidiaries	Reclassification (*)	Tax effects	Ending balance
Gain (loss) on valuation of financial assets at FVOCI	(1,018,647)	861,959	(69,253)	–	(9,236)	(204,542)	(439,719)
Changes in equity of investments in associates	75,396	(11,640)	–	–	–	3,073	66,829
Gain (loss) on valuation of net investment hedges of foreign operations	(49,822)	(30,022)	–	–	–	7,926	(71,918)
Exchange differences on translation of foreign operations	(84,186)	66,694	–	–	–	(4,641)	(22,133)
Loss on valuation of fair value hedges	(24,984)	–	–	–	–	–	(24,984)
Remeasurement of defined benefit plans	(463,290)	(202,305)	–	–	–	53,475	(612,120)
Total	(1,565,533)	684,686	(69,253)	–	(9,236)	(144,709)	(1,104,045)

(*) Loss on valuation of financial assets at FVOCI recognized as accumulated other comprehensive income (loss) is reclassified due to disposal of financial assets at FVOCI.

<2022>

Classification	Beginning balance	Increase (decrease) (excluding reclassification and transfer of retained earnings)	Transfer of retained earnings	Changes in equity in subsidiaries	Reclassification (*)	Tax effects	Ending balance
Gain (loss) on valuation of financial assets at FVOCI	(387,864)	(840,352)	3,692	(53)	(8,956)	214,886	(1,018,647)
Changes in equity of investments in associates	73,448	1,132	–	–	–	816	75,396
Gain (loss) on valuation of net investment hedges of foreign operations	(29,294)	(28,241)	–	–	–	7,713	(49,822)
Exchange differences on translation of foreign operations	(89,441)	7,555	–	97	–	(2,397)	(84,186)
Gain (loss) on valuation of fair value hedges	(13,123)	(16,360)	–	–	–	4,499	(24,984)
Remeasurement of defined benefit plans	(469,703)	8,860	–	–	–	(2,447)	(463,290)
Total	(915,977)	(867,406)	3,692	44	(8,956)	223,070	(1,565,533)

(*) Loss on valuation of financial assets at FVOCI recognized as accumulated other comprehensive income (loss) is reclassified due to disposal of financial assets at FVOCI.

32. Retained earnings

32-1 Details of retained earnings as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Legal reserve		
Earned surplus reserve (*1)	2,349,400	2,050,800
Voluntary reserve		
Revaluation reserves on property, plant and equipment (*2)	203,998	203,998
Other reserves (*3)	102,155	87,276
Regulatory reserve for bad debts (*4)	2,593,244	2,617,149
Other voluntary reserves	5,450,200	5,450,200
Subtotal	8,349,597	8,358,623
Unappropriated retained earnings	10,351,090	8,826,892
Total	21,050,087	19,236,315

(*1) Article 40 of the Banking Law of the Republic of Korea requires the Group to appropriate at least 10% of net income after income tax to legal reserve every time to pay dividends until such reserve equals 100% of its paid-in capital. This reserve is restricted to reduce deficit or be transferred to capital.

(*2) The Group records gains from revaluation of property, plant and equipment previously recognized as other comprehensive income to the voluntary reserve, as it applies the revaluation amount as deemed cost at the first-time adoption of K-IFRSs. The reserve is recognized in distributable retained earnings when the relevant property, plant and equipment are disposed of.

(*3) Relevant Japanese regulations require the Group's overseas branches located in Japan to appropriate a minimum of 10% of net income for the period as a legal reserve, until the reserve equals ¥2,000 million. This reserve is restricted from being used upon liquidation of the Japanese branches. Chennai, Panama, Singapore, Hong Kong, Hanoi and Ho Chi Minh branches' statutory reserves are included in other reserves in accordance with India, Panama, Singapore and

Vietnam's regulations.

(*4) The Group has provided allowances for possible loan losses in accordance with K-IFRS. The difference in this amount and the provision for possible loan and other asset losses accumulated in accordance with the minimum accumulation ratio required by the Financial Supervisory Service is reserved as a regulatory reserve for bad debts.

32-2 Changes in appropriated retained earnings for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Beginning balance	19,236,315	13,897,317
Net income	3,476,636	3,095,845
Dividends	(1,690,000)	(1,230,400)
Dividends on hybrid securities	(23,834)	(23,770)
Reclassification of valuation gain or loss on equity securities at FVOCI upon derecognition, etc.	50,970	(2,677)
Capital surplus income	—	3,500,000
Ending balance	21,050,087	19,236,315

32-3 Dividends

Details of calculation on common stock dividends for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions and shares in units):

Classification	2023 (*1)	2022
Number of dividend shares	1,071,915,717	1,071,915,717
Par value per share (in Korean won)	5,000	5,000
Dividend ratio	33.77%	27.05%
Dividend per share (in Korean won)	1,688.57	1,352.72
Dividends	1,810,000	1,450,000
Net income (*2)	3,476,636	3,095,845
Dividend pay out ratio based on net income	52.06%	46.84%
Adjusted income after deducting provisions for bad debt reserve (*2)	3,589,342	3,119,771
Dividends pay out ratio based on adjusted income after deducting provisions for bad debt	50.43%	46.48%

(*1) The dividend for 2023 will be presented at the annual general meeting of shareholders, which is scheduled on March 20, 2024.

(*2) Adjusted income after deducting provisions for bad debt reserve is based on the controlling company's shares.

33. Regulatory reserve for bad debts

Regulatory reserve for bad debts is calculated and disclosed in accordance with Article 29, Sections 1 and 2 of Regulation on Supervision of Banking Business of the Republic of Korea.

33-1 Details of regulatory reserve for bad debts as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Beginning balance	2,690,108	2,714,034
Planned reversal of bad debts	112,706	23,926
Ending balance	2,577,402	2,690,108

33-2 Reversal of (provisions for) bad debt reserve and income adjusted for deductions of provisions for bad debt for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Net income attributable to equity holders of the parent company before deducting reserve for bad debt	3,476,636	3,095,845
Reversal of bad debt reserve	112,706	23,926
Adjusted income after deducting reserve for bad debt	3,589,342	3,119,771
Basic EPS adjusted after reflecting reserve for bad debt (*1) (in Korean won)	3,326	2,888
Diluted EPS adjusted after reflecting reserve for bad debt (*2) (in Korean won)	3,326	2,888

(*1) The dividend on hybrid equity securities in the amount of ₩23,834 million and ₩23,770 million for the years ended December 31, 2023 and 2022, respectively, was deducted from the adjusted income after reflecting the bad debt reserve for the calculation of EPS after reflecting reserve for bad debt for each period.

(*2) Since the Group does not have dilutive potential ordinary stock, basic EPS is the same as diluted EPS.

34. Operating income and operating expenses

34-1 Operating income for the years ended December 31, 2023 and 2022, is as follows (Korean won in millions):

Classification	2023	2022
Interest income	19,793,063	13,347,231
Fees and commission income	931,532	874,721
Gains on financial instruments at FVTPL	23,575,868	31,421,014
Gains on fair value hedging derivative instruments	140,983	397,349
Gains on financial instruments at FVOCI	88,412	10,551
Gains on financial instruments at amortized cost	232	4
Reversal of credit loss	36,277	603
Other operating income	7,934,269	7,615,689
Total	52,500,636	53,667,162

34-2 Operating expenses for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Interest expenses	11,875,652	5,738,554
Fees and commission expenses	270,068	281,109
Expenses on financial instruments at FVTPL	23,084,120	31,296,313
Expenses on fair value hedging derivative instruments	114,647	460,900
Expenses on financial instruments at FVOCI	3,979	8,389
Provision of credit loss	694,584	658,252
General and administrative expenses	3,448,610	3,318,831
Other operating expenses	8,403,458	7,838,212
Total	47,895,118	49,600,560

35. Net interest income

35-1 Interest income for the years ended December 31, 2023 and 2022, is as follows (Korean won in millions):

Classification	2023	2022
Interest income in accordance with the effective interest rate method		
Interest income on due from banks	657,982	277,868
Interest income on loans	17,119,560	11,761,608
Interest income on financial assets at FVOCI	837,112	544,009
Interest income on securities at amortized cost	1,002,738	698,892
Subtotal	19,617,392	13,282,377
Interest income on financial instruments at FVTPL	175,671	64,854
Total	19,793,063	13,347,231

35-2 Interest expenses for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Interest expenses on deposit liabilities	9,772,767	4,558,562
Interest expenses on borrowings	782,002	342,306
Interest expenses on financial instruments at FVTPL	4,908	4,045
Interest expenses of debentures	986,274	671,472
Interest expenses of lease liabilities	23,929	15,857
Others	305,772	146,312
Total	11,875,652	5,738,554

36. Net fees and commission income

36-1 Fees and commission income for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Commissions received from loans and others	581,283	521,833
Commissions received on payment guarantees	101,755	89,740
Commissions related to foreign exchange	248,494	263,148
Total	931,532	874,721

36-2 Fees and commission expenses for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Commissions paid	212,279	226,715
Commissions related to foreign exchange	57,789	54,394
Total	270,068	281,109

37. Gain (loss) on financial instruments at FVTPL

37-1 Details of gain (loss) on financial instruments at FVTPL for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Gain on financial instruments at FVTPL		
Financial instruments at FVTPL		
Gain on valuation	623,974	138,271
Gain on disposals	114,121	35,850
Subtotal	738,095	174,121
Derivative instruments held for trading		
Gain on valuation of derivatives		
Gain on currency-related derivatives	3,756,674	8,065,307
Gain on interest rate-related derivatives	477,114	908,399
Gain on stock-related derivatives	5,948	3,333
Others	1,875	—
Subtotal	4,241,611	8,977,039
Gain on transaction of derivatives		
Gain on currency-related derivatives	12,213,996	16,472,062
Gain on interest rate-related derivatives	6,342,524	5,744,598
Gain on stock-related derivatives	34,424	13,394
Subtotal	18,590,944	22,230,054
Gain on securities sold	5,218	6,269
Total	23,575,868	31,387,483
Loss on financial instruments at FVTPL		
Financial instruments at FVTPL		
Loss on valuation	46,692	253,836
Loss on disposals	59,253	106,893
Others	1,720	1,408
Subtotal	107,665	362,137
Derivative instruments held for trading		

Classification	2023	2022
Loss on valuation of derivatives		
Loss on currency-related derivatives	3,280,101	8,742,678
Loss on interest rate-related derivatives	487,610	1,080,768
Loss on stock-related derivatives	4,472	23,154
Others	—	3,020
Subtotal	3,772,183	9,849,620
Loss on transaction of derivatives		
Loss on currency-related derivatives	12,651,931	16,406,795
Loss on interest rate-related derivatives	6,495,300	4,660,249
Loss on stock-related derivatives	23,738	9,687
Subtotal	19,170,969	21,076,731
Loss on securities sold	20,596	7,825
Total	23,071,413	31,296,313
Net amount	504,455	91,170

37-2 Details of gain (loss) on financial instruments designated at FVTPL for the years ended December 31, 2023 and 2022, are as follows
(Korean won in millions):

Classification	2023	2022
Gain on financial instruments designated at FVTPL		
Deposits		
Gain on valuation	—	33,531
Total	—	33,531
Loss on financial instruments designated at FVTPL		
Deposits		
Loss on valuation	11,270	—
Debentures		
Loss on valuation	1,379	—
Other financial liabilities		
Loss on disposals	58	—
Total	12,707	—
Net amount	(12,707)	33,531

38. Gain (loss) on derivative financial instruments used for hedging

Gain (loss) on derivative instruments used for hedging for the years ended December 31, 2023 and 2022, is as follows (Korean won in millions):

Classification	2023	2022
Gain on hedged item		
Gain on valuation		
Gain on valuation of debentures	3,463	320,975
Gain on valuation of deposits	–	71,015
Subtotal	3,463	391,990
Gain on transaction		
Gain on transaction of debentures	1,858	731
Derivative financial instruments used for hedging		
Gain on valuation of derivatives		
Gain on currency-related derivatives	49,945	–
Gain on interest-related derivatives	73,333	–
Subtotal	123,278	–
Gain on transaction of derivatives		
Gain on currency-related derivatives	7,704	2,048
Gain on interest-related derivatives	4,680	2,580
Subtotal	12,384	4,628
Total	140,983	397,349
Loss on hedged item		
Loss on valuation		
Loss on valuation of debentures	84,812	4,365
Loss on valuation of deposits	15,177	–
Subtotal	99,989	4,365
Loss on transaction		
Loss on transaction of debentures	5,513	–
Derivative instruments used for hedging		
Loss on valuation of derivatives		

Classification	2023	2022
Loss on currency-related derivatives	7,701	129,661
Loss on interest-related derivatives	—	325,170
Subtotal	7,701	454,831
Loss on transaction of derivatives		
Loss on currency-related derivatives	1,444	90
Loss on interest-related derivatives	—	1,614
Subtotal	1,444	1,704
Total	114,647	460,900
Net amount	26,336	(63,551)

39. Gain (loss) on financial instruments at FVOCI

Details of gain (loss) on financial instruments at FVOCI for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Gain on disposal of financial instruments at FVOCI	88,412	10,551
Loss on disposal of financial instruments at FVOCI	3,979	8,389
Net amount	84,433	2,162

40. Gain (loss) on financial instruments at amortized cost

Details of gain (loss) on financial instruments designated at amortized cost for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Gain on disposal of financial instruments at amortized cost	232	4

For the years ended December 31, 2023 and 2022, the Group disposed portion of securities at amortized cost for the purpose of managing the credit risk.

41. Provision for (reversal of) credit loss

Provision for (reversal of) bad debts due to the change in credit loss for the years ended December 31, 2023 and 2022, is as follows (Korean won in millions):

Classification	2023	2022
Provision for (reversal of) credit loss of debt securities at FVOCI	867	(603)
Reversal of (provision for) possible loan loss for debt securities at amortized cost	(36,277)	66,966
Provision for bad debts of loan losses	689,600	585,006
Provision for bad debts of other asset losses	4,117	6,280
Total	658,307	657,649

42. General and administrative expenses

General and administrative expenses for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Salaries	1,655,117	1,615,246
Retirement benefits—defined benefits plans	126,643	144,346
Retirement benefits—defined contribution plans	627	261
Termination benefits	127,643	177,008
Employee welfare benefits	104,107	100,551
Depreciation	395,105	342,481
Amortization	108,972	95,591
Rental fees	55,895	51,099
Entertainment expenses	20,186	16,455
Taxes and dues	149,001	121,087
Advertising expenses	182,739	181,095
Others	522,575	473,611
Total	3,448,610	3,318,831

43. Other operating income

Details of other operating income for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Gain on disposal of loans	63,312	22,954
Reversal of provisions for payment guarantees	12,941	–
Reversal of allowances for unused commitments	–	3,347
Reversal of other allowances	–	20,228
Trust commissions	209,343	177,573
Gain on foreign exchange transaction	7,374,765	7,170,247
Gain on merchant banking accounts (*)	184,550	119,943
Dividend income	11,529	10,798
Others	77,829	90,599
Total	7,934,269	7,615,689

(*) Details of gain on merchant banking accounts for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Interest income	149,433	93,710
Fees and commission income	450	492
Gain on disposal of debt securities at FVTPL	1,523	1,897
Gain on valuation of debt securities at FVTPL	–	910
Gain on valuation of CMA securities	162	103
Gain on disposal of bills	32,982	22,831
Total	184,550	119,943

44. Other operating expenses

Details of other operating expenses for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Loss on disposal of loans	23,888	3,070
Provision for payment guarantees	—	44,922
Provision for unused commitments	20,416	—
Provision for other allowances	182,051	—
Contribution to Korea Credit Guarantee Fund	461,950	409,833
Insurance fee on deposit	477,734	449,567
Loss on foreign exchange transaction	7,035,300	6,794,255
Merchant banking accounts expenses (*)	139,877	89,351
Others	62,242	47,214
Total	8,403,458	7,838,212

(*) Details of loss on merchant banking accounts for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Interest expenses	139,484	89,351
Others	393	—
Total	139,877	89,351

45. Non-operating income

Details of non-operating income for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Rental fee income	10,395	9,608
Gain on disposal of property, plant and equipment	742	6,202
Gain on disposal of investment properties	600	7,241
Gain on disposal of non-current assets held for sale	568	—
Gain on disposal of investments in associates and joint ventures	2,941	3,414
Gain on equity method	179,345	221,832
Gain on termination of right-of-use assets	992	1,511
Others	26,983	17,485
Total	222,566	267,293

46. Non-operating expenses

Details of non-operating expenses for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Loss on disposal of property, plant and equipment	247	1,146
Loss on impairment of property, plant and equipment	–	12
Loss on disposal of investment properties	–	1,044
Loss on impairment of intangible assets	10	220
Loss on impairment of non-current assets held for sale	1,100	–
Loss on equity method	11,232	32,819
Collection expenses for written-off claims	2,143	1,741
Collection commissions for written-off claims	5,020	5,455
Loss on investments in associates and joint ventures	2,289	1,099
Loss on impairment of investments in associates and joint ventures	1,395	520
Loss on termination of right-of-use assets	1,222	1,871
Donations	108,906	42,321
Others	81,437	74,161
Total	215,001	162,409

47. Income tax expenses

47-1 The components of income tax expenses for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Current income taxes		
Current income taxes	974,544	1,214,080
Prior year's income tax adjustments recognized in the current year	(38,354)	(24,481)
Changes in deferred tax assets (liabilities)	433,217	(282,051)
Income taxes directly recognized in equity	(162,992)	224,156
Tax effect of consolidated tax returns	(80,765)	(71,917)
Income tax expenses	1,125,650	1,059,787

47-2 Reconciliations of income tax expenses applicable to the net income before income tax expenses at the Korean statutory tax rate and to income tax expenses at the effective income tax rate of the Group for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Net income before tax	4,613,083	4,171,486
Corporate tax according to applicable tax rate (*)	1,196,413	1,168,977
Tax-free income	(11,123)	(7,176)
Non-deductible expenses	7,962	4,184
Tax credits	(26,941)	(28,674)
Overseas corporate tax	82,993	60,708
Changes due to consolidated tax system	(80,765)	(71,917)
Adjustments	(38,354)	(24,481)
Others (tax rate fluctuation, etc.)	(4,535)	(41,834)
Corporate tax expense	1,125,650	1,059,787
Effective tax rate (%)	24.40	25.41

(*) 9.9% is applied to income under ₩200 million, 20.9% is applied to income exceeding ₩200 million and under ₩20 billion, 23.1% is applied to income exceeding ₩20 billion and under ₩300 billion and 26.4% is applied to income above ₩300 billion for the nine-month period ended December 31, 2023, and 11% is applied to income under ₩200 million, 22% is applied to income exceeding ₩200 million and under ₩20 billion, 24.2% is applied to income exceeding ₩20 billion and under ₩300 billion and 27.5% is applied to income above ₩300 billion for the year ended December 31, 2022.

47-3 Details of temporary differences and deferred tax assets (liabilities) as of December 31, 2023 and 2022, are as follows (Korean won in millions):

<December 31, 2023>

Classification	Deductible (taxable) temporary differences	Deferred tax assets (liabilities)
Gain on valuation of securities	(113,175)	(29,878)
Valuation of investment in associates	(609,860)	(161,003)
Loss on valuation of derivatives	80,498	21,251
Deemed dividends	286,044	75,515
Deferred loan fees, net of expenses	(365,704)	(96,546)
Accrued income	(387,111)	(102,197)
Accrued expenses	69,841	18,438
Provisions for payment guarantees	70,683	18,660
Plan assets	(2,047,920)	(540,651)
Defined benefit liabilities	2,211,820	583,921
Other provisions	628,928	166,037
Bad debt expenses	505,378	133,420
Depreciation	6,362	1,680
Fair value valuation resulting from merger	6,937	1,831
Dormant deposits	90,862	23,987
Allowance for advanced depreciation	(180,315)	(47,603)
Deemed cost for property and equipment	(607,617)	(160,410)
Loss on valuation of financial instruments at FVOCI	606,213	160,040
Investment in kind	18,479	4,879
Financial guarantee contracts	5,493	1,450
Others	(1,200,003)	(316,801)
Subtotal	(924,167)	(243,980)
Domestic deferred tax liabilities		(243,980)
Foreign deferred tax assets (*)		133,742
Foreign deferred tax liabilities (*)		(9,220)
Total		(119,458)

(*) Deferred tax assets of foreign branches are not offset against the deferred tax liabilities due to the differences in tax jurisdictions.

<December 31, 2022>

Classification	Deductible (taxable) temporary differences	Deferred tax assets (liabilities)
Loss on valuation of securities	559,829	147,795
Valuation of investment in associates	(589,134)	(155,531)
Loss on valuation of derivatives	927,438	244,844
Deemed dividends	281,421	74,295
Deferred loan fees, net of expenses	(363,572)	(95,983)
Accrued income	(344,814)	(91,031)
Accrued expenses	94,987	25,077
Provisions for payment guarantees	81,109	21,413
Plan assets	(1,987,305)	(524,648)
Defined benefit liabilities	1,987,305	524,648
Other provisions	429,186	113,305
Bad debt expenses	707,373	186,747
Depreciation	(1,724)	(455)
Fair value valuation resulting from merger	6,937	1,831
Dormant deposits	22,133	5,843
Allowance for advanced depreciation	(180,315)	(47,603)
Deemed cost for property and equipment	(607,839)	(160,469)
Loss on valuation of financial instruments at FVOCI	1,380,998	364,583
Investment in kind	18,479	4,878
Financial guarantee contracts	4,631	1,222
Others	(1,657,614)	(437,611)
Subtotal	769,509	203,150
Domestic deferred tax assets		203,150
Foreign deferred tax assets (*)		112,868
Foreign deferred tax liabilities (*)		(2,259)
Total		313,759

(*) Deferred tax assets of foreign branches are not offset against the deferred tax liabilities due to the differences in tax jurisdictions.

The effective income tax rate of 26.4% as of December 31, 2023, is applied when calculating deferred tax assets or liabilities. Also, deferred tax assets are recognized when it is foreseeable that future taxable income will be incurred and that future tax credits will be realized.

47-4 The unrealizable temporary differences on investments in associates as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Deductible temporary differences	337,867	337,867
Taxable temporary differences	(355,579)	(355,579)
Total	(17,712)	(17,712)

47-5 Changes in deferred taxes charged (credited) directly to equity for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	December 31, 2023	December 31, 2022	Changes
Gain on valuation of equity securities at FVOCI	158,113	362,656	(204,543)
Changes in equity on investments in associates	(23,972)	(27,044)	3,072
Exchange differences on translation of foreign operations	(4,428)	213	(4,641)
Gain on valuation of net investment hedges of foreign operations	26,824	18,898	7,926
Gain on valuation of fair value hedges	9,477	9,477	—
Remeasurements of the defined benefit plans	215,467	161,991	53,476
Subtotal	381,481	526,191	(144,710)
Reclassification of valuation gain or loss on equity securities at FVOCI			(18,282)
Total			(162,992)

<2022>

Classification	December 31, 2022	December 31, 2021	Changes
Gain on valuation of equity securities at FVOCI	362,656	147,772	214,884
Changes in equity on investments in associates	(27,044)	(27,859)	815
Exchange differences on translation of foreign operations	213	2,610	(2,397)
Gain on valuation of net investment hedges of foreign operations	18,898	11,112	7,786
Gain on valuation of fair value hedges	9,477	4,978	4,499
Remeasurements of the defined benefit plans	161,991	164,438	(2,447)
Subtotal	526,191	303,051	223,140
Reclassification of valuation gain or loss on equity securities at FVOCI			1,016
Total			224,156

48. Earnings per share

48-1 Weighted-average number of shares of common stock for the years ended December 31, 2023 and 2022, is as follows (shares):

Classification	Periods	Number of shares	Weights	Weighted-average number of shares of common stock
December 31, 2023	2023.01.01~2023.12.31	1,071,915,717	365/365	1,071,915,717
December 31, 2022	2022.01.01~2022.12.31	1,071,915,717	365/365	1,071,915,717

Since the Group does not have potentially dilutive common stock, the weighted-average number of shares of common stock outstanding per basic share is the same as the weighted-average number of shares of common stock outstanding per diluted share.

48-2 The Group's basic EPS for the years ended December 31, 2023 and 2022, is calculated as follows (Korean won in millions, except per share amounts):

Classification	2023	2022
Net income for the period attributable to owners	3,476,636	3,095,845
Dividends on hybrid equity securities	(23,834)	(23,770)
Total	3,452,802	3,072,075
Weighted-average number of shares of common stock outstanding	1,071,915,717	1,071,915,717
Basic EPS (*) (in Korean won)	3,221	2,866

(*) Basic EPS is the same as diluted EPS for the years ended December 31, 2023 and 2022.

49. Share-based payment

The Group operates a Performance Share Plan. It is a share-based payment with cash settlement linked to the stocks of HFG, and the amount of shares are determined based on performance for three years from the grant date.

GLN International Co., Ltd., a subsidiary of the Group, granted 400,000 new share options to an executive during November 2021. The exercise price of the stock purchase option is ₩500 per share, and the options vest if the executive has served for more than two years from the date of grant, and the exercise period is within five years from the date of grant. However, due to the retirement of the executive concerned, all of the share options have been canceled due to the failure to meet the terms of service, and there are no share options granted as of the end of the reporting period.

49-1 Details of liabilities related to share-based payment and total intrinsic value of rights accounted for as accounts payable in case that option holders achieve rights to receive cash or other assets as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Book value of liabilities related to share-based payment		
Performance share (granted by the Group)	29,972	36,127

49-2 The compensation costs for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Costs recognized due to share-based payment		
Equity-linked special incentive (granted by the Group)	7,304	10,782
Stock options (granted by subsidiary)	(17)	15
Total	7,287	10,797

49-3 Details of performance-linked stocks granted to the executives and department head of the Group as of December 31, 2023, are as follows:

Classification	8th	9th	10th	11th	12th	13th
Granted by	Hana Bank	Hana Bank	Hana Bank	Hana Bank	Hana Bank	Hana Bank
Grant date	2018.01.01	2019.01.01	2020.01.01	2021.01.01	2022.01.01	2023.01.01
Payment date	2020.12.31	2021.12.31	2022.12.31	2023.12.31	2024.12.31	2025.12.31
Evaluation period	2018.01.01~2020.12.31	2019.01.01~2021.12.31	2020.01.01~2022.12.31	2021.01.01~2023.12.31	2022.01.01~2024.12.31	2023.01.01~2025.12.31
Reservation period	2021.01.01~2021.12.31	2022.01.01~2022.12.31	2023.01.01~2023.12.31	2024.01.01~2024.12.31	2025.01.01~2025.12.31	2026.01.01~2026.12.31
Payment period	Within 2022.4.30	Within 2023.4.30	Within 2024.4.30	Within 2025.4.30	Within 2026.4.30	Within 2027.4.30
Payment method	Market-based compensation	Market-based compensation	Market-based compensation	Market-based compensation	Market-based compensation	Market-based compensation
Shares at settlement date (*)	10,250 shares	25,373 shares	309,551 shares	168,063 shares	102,509 shares	79,313 shares

(*) The Group provides the executives and department head of the Group with the right to receive stocks. The number of stocks granted is adjusted based on the performance. The number of stocks granted is adjusted based on the assessment indicator that constitutes the Group's performance (relative shareholders' rate of return) of 40% and the Bank's performance (return on equity, net income, soundness) of 60%.

50. Cash flow information

50-1 Details of cash and cash equivalents as of December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	December 31, 2023	December 31, 2022
Cash	1,742,359	1,903,972
Due from banks in Korean won	10,450,468	15,950,890
Due from banks in foreign currencies	18,371,452	23,232,995
Subtotal	30,564,279	41,087,857
Restricted balances (*)	1,824,242	2,010,077
Deposits with a maturity of more than three months at the time of acquisition	457,734	577,354
Net amount	28,282,303	38,500,426

(*) Restricted balances exclude reserve deposits that meet the definition of cash equivalents.

50-2 Significant non-cash transactions for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

Classification	2023	2022
Reduction in capital surplus	—	3,500,000
Recognition of right-of-use assets	166,171	306,049
Recognition of lease liabilities	131,262	311,888
Change in valuation of financial assets at FVOCI	852,837	852,663
Transfer from property, plant and equipment to investment properties	26,318	97,994
Changes in equity on investments in associates	11,641	1,132
Exchange differences on translation of foreign operations	75,374	313
Conversion from debt instruments	188	40,370

50-3 Reconciliation of liabilities arising from financing activities for the years ended December 31, 2023 and 2022, is as follows (Korean won in millions):

<2023>

Classification	Beginning balance	Financing activities	Exchange rate fluctuation	Fair value hedging	Acquisition and termination of lease	Others	Ending balance
Borrowings	22,256,597	(1,339,106)	1,116,423	—	—	—	22,033,914
Debentures	26,233,339	150,040	32,507	110,223	—	16,070	26,542,179
Lease liabilities	667,779	(201,285)	—	—	131,262	(4,281)	593,475
Derivatives used for hedging	412,250	13,433	—	(100,399)	—	(10,941)	314,343
Total	49,569,965	(1,376,918)	1,148,930	9,824	131,262	848	49,483,911

<2022>

Classification	Beginning balance	Financing activities	Exchange rate fluctuation	Fair value hedging	Acquisition and termination of lease	Others	Ending balance
Borrowings	17,524,480	3,926,509	805,608	—	—	—	22,256,597
Debentures	27,699,757	(1,465,060)	257,968	(271,934)	—	12,608	26,233,339
Lease liabilities	561,562	(199,280)	—	—	311,888	(6,391)	667,779
Derivatives used for hedging	27,703	—	—	383,816	—	731	412,250
Total	45,813,502	2,262,169	1,063,576	111,882	311,888	6,948	49,569,965

51. Related parties

51-1 Transactions with related parties for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
Ultimate parent company	HFG	333	3,954	114	–	374	–	–
Associates	Bank of Jilin	91	3	–	–	181	–	10
	CM International financing leases	1,309	–	–	(1,754)	–	–	–
	Beijing Langzi Asset Management Co., Ltd.	–	1	1	–	162	–	–
	Hana Equity Partners I, L.P.	–	–	–	–	4	–	–
	Korea Credit Bureau	856	10	–	(12)	10	–	2
	Templeton Hana Asset Management Co., Ltd.	–	–	–	–	379	–	–
	Hana – KVIC Unicorn Fund of Funds	–	–	–	–	131	–	–
	BIDV	304	6	270	(24)	684	5	431
	Hana Micro Finance., Ltd.	–	1,008	–	–	–	–	–
	Hana Ventures No. 7 New Technology Business Investment Association	–	3	–	–	5	–	–
	HORIZON PRIVATE EQUITY FUND	–	–	–	–	69	–	2
	TossBank Corp.	2,596	–	–	–	62	–	–
	SHINJIN INTERNATIONAL CORPORATION	314	2	–	(107)	–	–	–
	Sinsa Station area Complex Development PFV Co., Ltd.	1,274	–	–	112	–	–	–
	Hana-Capstone AI Platform Fund	–	–	–	–	53	–	–
	Cheongna Medipolis PFV Co., Ltd.	–	–	–	–	92	–	–
	Hana Beyond Finance Fund	–	37	–	–	500	–	–
	UNION TCB FUND II	–	–	–	–	6	–	–
	No.1 KEBHANASTAY REITS Co., Ltd	363	3	–	6	8	–	–
	MASHUP ANGELS VALUE UP FUND2	–	4	–	–	12	–	–
Subtotal		7,107	1,077	271	(1,779)	2,358	5	445
Joint venture	PT. SINARMAS HANA FINANCE	2,818	3	–	17	–	–	–
Entities under common control	Hana Securities Co., Ltd.	197	2,509	483,638	12	9,018	–	460,917
	Hana Card Co., Ltd.	579	43,517	9,443	50	6,393	5,460	–
	Hana Capital Co., Ltd.	–	828	273	59	361	–	34
	Hana Asset Trust Co., Ltd.	–	64	–	–	2,886	5,146	–
	Hana Alternative Asset Management Co., Ltd.	162	56	47	–	392	–	–
	Hana TI Co., Ltd.	5	21	95	–	8,409	8,654	81,457
	Hana Life Insurance Co., Ltd.	178	14,394	4,556	–	48	–	1,316
	Hana Savings Bank	–	33	–	–	–	–	–
	Hana Investors Services Company	156	3	36	–	126	–	–
	Hana Ventures Inc.	–	1	2,144	–	378	1,291	–
	Hana Alternative Special Investment Private Real Estate Investment Trust No.123-1	–	–	2,859	–	–	–	–
	Hana F&I Inc	2,908	500	12	175	97	–	–
	Hana Ventures No. 4 New Technology Business Investment Association	–	3	–	–	1	–	–

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
	Hana Insurance. Co., Ltd.	-	113	23	-	-	-	-
	Hana Alternative Infra Special Investment Private Trust No.3-1	-	-	1,109	-	-	-	-
	Hana Alternative Infra Special Investment Private Trust No.3-2	-	-	222	-	-	-	-
	Hana Ventures No. 6 New Technology Business Investment Association	-	2	-	-	1	-	-
	Hana Alternative Infra Special Investment Private Trust No.3-4	-	-	3,835	-	-	-	-
	Hana Alternative Investment PRC Logistics General Private Investment Trust No.1(professional)	457	-	-	-	-	-	-
	Hana Alternative General Private Real Estate Investment Trust No.180	-	-	1,888	-	-	-	-
	Finnq Co., Ltd.	-	31	1	-	2,134	788	-
Subtotal		4,642	62,075	510,181	296	30,244	21,339	543,724
Other related parties	Hana Power Infrastructure No.1 Private Investment Co., Ltd.	598	60	-	(36)	53	-	-
	Mirae Credit Information Services Corp.	66	11	72	(9)	62	1,133	-
	F&U Credit Information Co., Ltd.	-	19	-	-	2	-	-
	Lotte Ventures Corp.	-	-	1	-	1	-	-
	GMHB Co., Ltd.	-	-	-	-	1	-	-
	KORAMCO THE ONE REIT	-	-	-	-	-	-	1,519
	Dangsandong PFV Co., Ltd.	-	-	-	-	1	-	-
	Daegu MBC Site Complex Development PFV	7,823	173	-	657	-	-	-
	Apollon Private Equity Fund	-	-	709	-	-	-	-
	Lakebridge Growth First Private Investment Co., Ltd.	-	-	1,442	-	1	-	-
	YH Leisure Development Co., Ltd.	4,431	-	-	(30)	42	-	-
	Hana Ventures No.5 New Technology Business Investment Association	-	-	-	-	10	-	-
	Hana Innovation Venture Scale-up Fund	-	-	-	-	118	-	-
	Hana Must Seven Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Financial Sixteenth Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Financial Nineteenth Special Purpose Acquisition Company	-	-	-	-	13	-	-
	Gyeonggi Hana Turn-around Fund No.2	-	-	-	-	111	-	-
	Hana Untact Digital Innovation Fund	-	-	-	-	56	-	-
	Hana Financial Twenty-first Special Purpose Acquisition Company	-	-	-	-	85	-	-
	Hana Financial Twenty-second Special Purpose Acquisition Company	-	-	-	-	65	-	-
	Hana Financial Twenty-third Special Purpose Acquisition Company	-	-	-	-	61	-	-
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	-	-	-	-	99	-	-
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	-	-	-	-	234	-	-
	Hana Financial Twenty-sixth Special Purpose Acquisition Company	-	-	-	-	72	-	-
	Hana Financial Twenty-seventh Special Purpose Acquisition Company	-	-	-	-	69	-	-
	Anda Mobility Infrastructure Fund No.1	-	-	-	-	1	-	-

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
	Hana Financial Twenty-eighth Special Purpose Acquisition Company	-	-	-	-	32	-	-
	Hana Financial Twenty-ninth Special Purpose Acquisition Company	-	-	-	-	15	-	-
	Anda Mobility Infrastructure Fund No.2	-	-	-	-	1	-	-
	The Hahm Green Energy Fund	-	-	60	-	-	-	-
	VL Taube Private Equity Fund	-	-	200	-	-	-	-
	HANA 30 Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Subtotal	12,918	263	2,484	582	1,208	1,133	1,519
Key management	Key management	44	-	-	-	278	-	-
	Total	27,862	67,372	513,050	(884)	34,462	22,477	545,688

<2022>

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
Ultimate parent company	HFG	15	4,421	–	–	58	–	–
Associates	Bank of Jilin	100	3	–	–	–	–	5
	CM International financing leases	2,407	–	–	16,015	–	–	–
	Beijing Langzi Asset Management Co., Ltd.	67	1	1	(22)	8	–	–
	Hana Equity Partners I, L.P.	–	5	–	–	2	–	–
	Korea Credit Bureau	978	–	–	16	108	–	–
	Templeton Hana Asset Management Co., Ltd.	–	1	2	–	213	–	–
	Hana – KVIC Unicorn Fund of Funds	–	–	–	–	78	–	–
	BIDV	780	–	–	(15)	1,284	1	–
	Hana Micro Finance., Ltd.	–	1,600	–	(343)	–	–	–
	All Together Korea Fund 5	–	–	62	–	–	–	–
	Hana Ventures No.7 New Technology Business Investment Association	–	3	–	–	3	–	–
	TossBank Corp.	10,541	–	1	–	2	–	–
	SHINJIN INTERNATIONAL CORPORATION	4	–	–	–	–	–	–
	Inhee.Co.,Ltd	–	1	–	–	–	–	–
	Sinsa Station area Complex Development PFV Co., Ltd.	1,606	100	–	9,199	–	–	–
	Hana-Capstone AI Platform Fund	–	–	–	–	54	–	–
	Cheongna Medipolis PFV Co., Ltd.	–	–	–	–	53	–	–
	Hana Beyond Finance Fund	–	8	–	–	229	–	–
	Subtotal	16,483	1,722	66	24,850	2,034	1	5
Joint venture	PT. SINARMAS HANA FINANCE	2,398	2	–	76	–	–	–
Entities under common control	Hana Securities Co., Ltd.	76	1,947	469,067	44	3,823	–	552,481
	Hana Card Co., Ltd.	29	36,985	6,813	20	2,574	8,803	562
	Hana Capital Co., Ltd.	17	407	–	4	300	–	398
	Hana Asset Trust Co., Ltd.	–	39	–	–	3,856	3,380	–
	Hana Alternative Asset Management Co., Ltd.	5	53	–	–	823	–	–
	Hana TI Co., Ltd.	–	16	56	–	7,368	7,099	77,039
	Hana Life Insurance Co., Ltd.	8	10,757	7,782	–	31	–	3,066
	Hana Savings Bank	–	19	–	–	–	–	–
	Hana Investors Services Company	7	2	–	–	47	–	–
	Hana Ventures Inc.	–	1	–	–	97	–	–
	Hana Alternative Special Investment Private Real Estate Investment Trust No.123-1	2,775	–	1,916	–	–	–	–
	Hana F&I Inc	298	237	1	2	72	–	–
	Hana Ventures No.4 New Technology Business Investment Association	–	3	–	–	2	–	–
	Hana Insurance. Co., Ltd.	–	48	9	–	–	2,141	–
	Hana Alternative Infra Special Investment Private Trust No.3-1	–	–	499	–	–	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-2	–	–	211	–	–	–	–
	Hana Ventures No.6 New Technology Business Investment Association	–	3	–	–	3	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-4	–	–	734	–	–	–	–
	Hana Alternative General Private Real Estate Investment Trust No.180	–	–	799	–	–	–	–

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
	Finnq Co., Ltd.	–	405	2	–	486	684	–
	Subtotal	3,215	50,922	487,889	70	19,482	22,107	633,546
Other related parties	Hana Power Infrastructure No.1 Private Investment Co., Ltd.	588	60	–	(69)	20	–	–
	Mirae Credit Information Services Corp.	227	10	72	9	42	1,139	–
	UBS Hana Asset Management Co., Ltd.	–	1	9	–	353	–	–
	F&U Credit Information Co., Ltd.	–	17	–	–	11	–	–
	Lotte Ventures Corp.	–	–	1	–	–	–	–
	GMHB Co., Ltd.	857	–	–	(266)	1	–	–
	KORAMCO THE ONE REIT	–	–	–	–	–	–	2,069
	Daegu MBC Site Complex Development PFV	5,201	219	–	181	–	–	–
	Lakebridge Growth First Private Investment Co., Ltd.	–	–	39	–	1	–	–
	YH Leisure Development Co., Ltd.	3,917	–	–	(160)	29	–	–
	Hana Ventures No.5 New Technology Business Investment Association	–	–	–	–	6	–	–
	Hana Innovation Venture Scale-up Fund	–	–	–	–	76	–	–
	Hana Must Seven Special Purpose Acquisition Company	–	–	–	–	1	–	–
	Hana Financial Fourteenth Special Purpose Acquisition Company	–	–	–	–	1	–	–
	Hana Financial Fifteenth Special Purpose Acquisition Company	–	–	–	–	1	–	–
	Hana Financial Sixteenth Special Purpose Acquisition Company	–	–	–	–	1	–	–
	Hana Financial Seventeenth Special Purpose Acquisition Company	–	2	–	–	40	–	–
	Hana Financial Nineteenth Special Purpose Acquisition Company	–	–	–	–	29	–	–
	Hana-History No.1 New Technology Investment Association	–	–	–	–	3	–	–
	Hana Financial Twentieth Special Purpose Acquisition Company	–	–	–	–	1	–	–
	Gyeonggi Hana Turn around Fund No.2	–	–	16	–	94	–	–
	Hana Untact Digital Innovation Fund	–	–	21	–	69	–	–
	Imgok Rental Housing Co., Ltd.	–	–	–	–	1	–	–
	Hana Financial Twenty-first Special Purpose Acquisition Company	–	–	–	–	17	–	–
	The Hahm Green Energy Fund	–	–	–	–	25	–	–
	Hana Financial Twenty-second Special Purpose Acquisition Company	–	–	–	–	13	–	–
	Hana Financial Twenty-third Special Purpose Acquisition Company	–	–	–	–	12	–	–
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	–	–	–	–	19	–	–
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	–	–	–	–	44	–	–
	Eugene Asia Food Tech Fund-1	–	–	37	–	–	–	–
	Subtotal	10,790	309	195	(305)	910	1,139	2,069
Key management	Key management	25	–	–	–	89	–	–
	Total	32,926	57,376	488,150	24,691	22,573	23,247	635,620

51-2 Significant financial transactions with related parties for the years ended December 31, 2023 and 2022, are as follows:

51-2-1 Details of significant loans to related parties for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Entity	Loans (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
Associates	Bank of Jilin	3,200	118,250	(121,450)	-	-
	CM International financing leases	61,969	59,778	(61,761)	(208)	59,778
	Korea Credit Bureau	40,000	20,000	(50,000)	-	10,000
	BIDV	6,337	19,684	(32,578)	6,557	-
	TossBank Corp.	-	2,720,000	(2,720,000)	-	-
	SHINJIN INTERNATIONAL CORPORATION	1,444	-	(1,444)	-	-
	Sinsa Station area Complex Development PFV Co., Ltd.	9,800	-	-	-	9,800
	No.1 KEBHANASTAY REITS Co., Ltd	-	18,641	-	-	18,641
Subtotal		122,750	2,956,353	(2,987,233)	6,349	98,219
Joint venture	PT. SINARMAS HANA FINANCE	37,144	431	(764)	1,240	38,051
Entities under common control	Hana Securities Co., Ltd.	3,239	-	(638)	-	2,601
	Hana F&I Inc	-	1,293,800	(1,203,600)	-	90,200
	Hana Alternative Investment PRC Logistics General Private Investment Trust No.1(professional)	-	6,447	-	-	6,447
Subtotal		3,239	1,300,247	(1,204,238)	-	99,248
Other related parties	Mirae Credit Information Services Corp.	11,116	-	(418)	-	10,698
	Hana Power Infrastructure No.1 Private Investment Co., Ltd.	7,000	-	(7,000)	-	-
	Daegu MBC Site Complex Development PFV	94,708	22,187	-	-	116,895
	YH Leisure Development Co., Ltd.	112,323	-	(9,323)	-	103,000
Subtotal		225,147	22,187	(16,741)	-	230,593
Key management	Key management	774	121	-	-	895
Total		389,054	4,279,339	(4,208,976)	7,589	467,006

(*1) Intraday overdrafts between related parties are excluded.

(*2) Others include the effect of changes in exchange rate.

<2022>

Classification	Entity	Loans (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
Associates	Bank of Jilin	6,300	108,600	(111,700)	–	3,200
	CM International financing leases	63,341	–	–	(1,372)	61,969
	Beijing Langzi Asset Management Co., Ltd.	11,161	–	(12,083)	922	–
	Korea Credit Bureau	–	40,000	–	–	40,000
	BIDV	11,855	419,413	(425,749)	818	6,337
	TossBank Corp.	–	1,060,000	(1,060,000)	–	–
	SHINJIN INTERNATIONAL CORPORATION	1,444	–	–	–	1,444
	Sinsa Station area Complex Development PFV Co., Ltd.	75,500	9,800	(75,500)	–	9,800
Subtotal		169,601	1,637,813	(1,685,032)	368	122,750
Joint venture	PT. SINARMAS HANA FINANCE	32,491	7,086	(1,572)	(861)	37,144
Entities under common control	Hana Securities Co., Ltd.	924	4,061	(1,746)	–	3,239
	Hana Capital Co., Ltd.	–	100,000	(100,000)	–	–
	Hana Alternative Special Investment Private Real Estate Investment Trust No.123-1	–	45,537	(45,537)	–	–
	Hana F&I Inc.	–	265,400	(265,400)	–	–
Subtotal		924	414,998	(412,683)	–	3,239
Other related parties	Hana Power Infrastructure No.1 Private Investment Co., Ltd.	13,023	–	(1,907)	–	11,116
	Mirae Credit Information Services Corp.	–	7,000	–	–	7,000
	Smartscore Co., Ltd.	–	38	(38)	–	–
	GMHB Co., Ltd.	32,500	–	(32,500)	–	–
	Daegu MBC Site Complex Development PFV	85,120	9,588	–	–	94,708
	YH Leisure Development Co., Ltd.	115,463	–	(3,140)	–	112,323
Subtotal		246,106	16,626	(37,585)	–	225,147
Key management	Key management	749	25	–	–	774
Total		449,871	2,076,548	(2,136,872)	(493)	389,054

(*1) Intraday overdrafts between related parties are excluded.

(*2) Others include the effect of changes in exchange rate.

51-2-2 Details of significant cash investments with related parties for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Entity	Investment in cash	
		Investment	Collection and others
Associates	Bank of Jilin	–	(13,864)
	Beijing Langzi Asset Management Co., Ltd.	–	(1,178)
	Korea Credit Bureau Co., Ltd	–	(90)
	Templeton Hana Asset Management Co., Ltd.	–	(396)
	Company K Startup Winwin Fund	–	(550)
	BSK-6 Patent Technology Investment Association	–	(409)
	Hana-KVIC Unicorn Fund of Funds	–	(6,000)
	Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	–	(2,377)
	All Together Korea Fund 5	210	(210)
	HORIZON PRIVATE EQUITY FUND	–	(16,268)
	TossBank Corp.	50,677	–
	Hana-New Deal K-Growth fund	4,500	–
	Taurus Cloud Fund	91	–
	Cheongna Medipolis PFV Co., Ltd.	16,628	–
	Hana Beyond Finance Fund	8,000	(721)
	Defense Technology Innovation Private Investment Trust	5,900	–
	Hana Prop-Tech Fund No.1	3,000	–
	UNION TCB FUND II	1,200	–
	Artificial Photosynthesis Lab Co.,Ltd.	1,666	–
	MASHUP ANGELS VALUE UP FUND2	1,200	–
	Hana KTOP Short term Financial Bond Active ETF (Bond)	60,107	–
	Hana KTOP25-08 Credit(A+) Active ETF (Bond)	49,995	–
Subtotal		203,174	(42,063)
Entities under common control	Hana Alternative Special Investment Private Real Estate Investment Trust No.123-1	–	(7,469)
	Hana Alternative Infra Special Investment Private Trust No.3-1	4,926	(1,250)
	Hana Alternative Infra Special Investment Private Trust No.3-2	–	(31)
	Hana Alternative Infra Special Investment Private Trust No.3-4	–	(15,819)
	Hana Alternative General Private Real Estate Investment Trust No.180	35,956	–
	Hana the Third Private Equity Fund	–	(248)
	Hana Alternative Infrastructure General Private Special Asset Fund No.1 (Professional)	19,137	–
	Hana Balance Private investment trust 1	10,000	–
	Hana Private investment trust 12 [Bond]	50,000	–

Classification	Entity	Investment in cash	
		Investment	Collection and others
	Hana Private investment trust 13 [Bond]	50,000	—
	Hana Private investment trust 14 [Bond]	50,000	—
	Hana Private investment trust 15 [Bond]	50,000	—
	Hana Private investment trust 16 [Bond]	50,000	—
	Subtotal	320,019	(24,817)
Other related parties	Hana Digital Transformation Fund	—	(1,800)
	Apollon Private Equity Fund	—	(394)
	Heat Private Equity Fund	—	(1,008)
	Lakebridge Growth First Private Investment Co., Ltd.	—	(6,317)
	Hana Innovation Venture Scale-Up Fund	—	(208)
	Hana K-NewDeal Unicorn Fund	1,800	—
	KDBI-HANA Business Reorganization Value-up Private Equity Fund	27,703	—
	Subtotal	29,503	(9,727)
	Total	552,696	(76,607)

<2022>

Classification	Entity	Investment in cash	
		Investment	Collection and others
Associates	Beijing Langzi Asset Management Co., Ltd.	–	(1,708)
	Hana First Private Equity Fund	–	(120)
	Templeton Hana Asset Management Co., Ltd.	–	(198)
	Company K Startup Winwin Fund	–	(7,090)
	BSK-6 Patent Technology Investment Association	–	(327)
	Hana – KVIC Unicorn Fund of Funds	25,130	–
	Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	–	(27)
	All Together Korea Fund 5	62	(62)
	HORIZON PRIVATE EQUITY FUND	–	(15,436)
	TossBank Corp.	70,000	–
	Hana-New Deal K-Growth fund	22,500	–
	Hana-Capstone AI Platform Fund	15,000	–
	Taurus Cloud Fund	77	–
	Hana Beyond Finance Fund	24,000	–
	Defense Technology Innovation Private Investment Trust	2,950	–
Subtotal		159,719	(24,968)
Entities under common control	Hana Securities Co., Ltd.	–	(563)
	Hana Alternative Infra Special Investment Private Trust No.3-1	14,454	–
	Hana Alternative Infra Special Investment Private Trust No.3-4	356	–
	Hana Alternative General Private Real Estate Investment Trust No.180	37,233	–
Subtotal		52,043	(563)
Other related parties	Hana Digital Transformation Fund	–	(1,596)
	Lakebridge Growth First Private Investment Co., Ltd.	–	(175)
	Hana Innovation Venture Scale-up Fund	1,040	–
	Gyeonggi Hana Turn around Fund No.2	1,350	–
	Hana Untact Digital Innovation Fund	2,700	–
	Hana K-NewDeal Unicorn Fund	7,200	–
	The Hahm Green Energy Fund	6,000	–
Subtotal		18,290	(1,771)
Total		230,052	(27,302)

51-2-3 Details of significant deposits with related parties for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Entity	Deposits (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
Associates	Korea Credit Bureau	8,000	–	(8,000)	–	–
	Templeton Hana Asset Management Co., Ltd.	10,500	7,500	(7,500)	–	10,500
	Hana Ventures No.7 New Technology Business Investment Association	200	–	(200)	–	–
	HORIZON PRIVATE EQUITY FUND	–	2,823	(2,823)	–	–
	Hana-Capstone AI Platform Fund	42	43	(42)	–	43
	Cheongna Medipolis PFV Co., Ltd	2,500	70	–	–	2,570
	Hana Beyond Finance Fund	35,000	–	(35,000)	–	–
	MASHUP ANGELS VALUE UP FUND2	–	4,110	(860)	–	3,250
Subtotal		56,242	14,546	(54,425)	–	16,363
Joint venture	PT. SINARMAS HANA FINANCE	5	–	(5)	–	–
Entities under common control	Hana Securities Co., Ltd.	11,045	10,015	(19,060)	15,000	17,000
	Hana Card Co., Ltd.	10	10	(10)	–	10
	Hana Capital Co., Ltd.	1,900	–	(1,900)	–	–
	Hana Asset Trust	175,000	125,000	(270,000)	–	30,000
	Hana Alternative Asset Management Co., Ltd.	13,000	–	(13,000)	–	–
	Hana TI Co., Ltd.	–	8,468	(4,180)	–	4,288
	Hana Fund Service Co., Ltd.	3,000	7,000	(3,000)	–	7,000
	Hana Ventures Inc.	11,000	59,000	(54,000)	–	16,000
	Hana Ventures No.4 New Technology Business Investment Association	200	–	(200)	–	–
	Hana Ventures No.6 New Technology Business Investment Association	200	–	(200)	–	–
	Finnq Co., Ltd.	47,500	30,000	(37,500)	–	40,000
Subtotal		262,855	239,493	(403,050)	15,000	114,298
Other related parties	GMHB Co., Ltd.	100	–	–	–	100
	YH Leisure Development Co., Ltd.	5,000	–	(5,000)	–	–
	Hana Ventures No.5 New Technology Business Investment Association	500	–	(500)	–	–
	Hana Innovation Venture Scale-up Fund	5,000	–	(5,000)	–	–
	Hana Financial Nineteenth Special Purpose Acquisition Company	1,813	–	(1,813)	–	–
	Gyeonggi Hana Turn around Fund No.2	7,000	–	(7,000)	–	–
	Hana Untact Digital Innovation Fund	3,000	–	(3,000)	–	–
	Hana Financial Twenty-first Special Purpose Acquisition Company	2,100	–	(2,100)	–	–
	Hana Financial Twenty-second Special Purpose Acquisition Company	1,600	–	(1,600)	–	–
	Hana Financial Twenty-third Special Purpose Acquisition Company	1,500	–	(1,500)	–	–
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	2,450	–	(2,450)	–	–
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	5,800	–	(5,800)	–	–
	Hana Financial Twenty-sixth Special Purpose Acquisition Company	–	3,230	(1,700)	–	1,530

Classification	Entity	Deposits (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
	Hana Financial Twenty-seventh Special Purpose Acquisition Company	-	1,650	(1,650)	-	-
	Hana Financial Twenty-eighth Special Purpose Acquisition Company	-	2,200	-	-	2,200
	Hana Financial Twenty-ninth Special Purpose Acquisition Company	-	1,000	-	-	1,000
	Subtotal	35,863	8,080	(39,113)	-	4,830
Key management	Key management	5,502	1,919	-	-	7,421
	Total	360,467	264,038	(496,593)	15,000	142,912

(*1) Deposits/Withdrawals arising from operations between related parties are excluded.

(*2) The amount from the change in the classification of related parties is included.

<2022>

Classification	Entity	Deposits (*1)			
		Beginning balance	Increase	Decrease	Ending balance
Associates	Korea Credit Bureau	-	8,000	-	8,000
	Templeton Hana Asset Management Co., Ltd.	11,000	10,500	(11,000)	10,500
	Company K Startup Winwin Fund	300	-	(300)	-
	Hana Ventures No.7 New Technology Business Investment Association	-	400	(200)	200
	Hana-Capstone AI Platform Fund	42	42	(42)	42
	Cheongna Medipolis PFV Co., Ltd.	-	2,500	-	2,500
	Hana Beyond Finance Fund	-	35,000	-	35,000
	Subtotal	11,342	56,442	(11,542)	56,242
Joint venture	PT. SINARMAS HANA FINANCE	12	5	(12)	5
Entities under common control	Hana Securities Co., Ltd.	5,100	7,560	(1,615)	11,045
	Hana Card Co., Ltd.	1,005	10	(1,005)	10
	Hana Capital Co., Ltd.	-	5,800	(3,900)	1,900
	Hana Asset Trust	165,000	175,000	(165,000)	175,000
	Hana Alternative Asset Management Co., Ltd.	49,000	98,000	(134,000)	13,000
	Hana TI Co., Ltd.	-	100,000	(100,000)	-
	Hana Investors Services Company	-	3,000	-	3,000
	Hana Ventures Inc.	3,000	16,500	(8,500)	11,000
	Hana F&I Inc.	-	1,500	(1,500)	-
	Hana Ventures No.4 New Technology Business Investment Association	-	400	(200)	200
	Hana Ventures No.6 New Technology Business Investment Association	-	400	(200)	200
	Finnq Co., Ltd.	-	89,000	(41,500)	47,500
	Subtotal	223,105	497,170	(457,420)	262,855
	Mirae Credit Information Services Corp.	300	-	(300)	-
	UBS Hana Asset Management Co., Ltd.	16,000	18,000	(16,000)	18,000
	F&U Credit Information Co., Ltd.	509	502	(1,011)	-
	GMHB Co., Ltd.	100	-	-	100
	YH Leisure Development Co., Ltd.	-	5,000	-	5,000

Classification	Entity	Deposits (*1)			
		Beginning balance	Increase	Decrease	Ending balance
Other related parties	Creation Innovation Co., Ltd	10	–	(10)	–
	Hana Ventures No.5 New Technology Business Investment Association	–	1,000	(500)	500
	Hana Innovation Venture Scale-Up Fund	–	13,000	(8,000)	5,000
	Hana Financial Nineteenth Special Purpose Acquisition Company	1,800	13	–	1,813
	Gyeonggi Hana Turn around Fund No.2	–	17,000	(10,000)	7,000
	Hana Untact Digital Innovation Fund	–	13,000	(10,000)	3,000
	Hana Financial Twenty-first Special Purpose Acquisition Company	–	2,100	–	2,100
	The Hahm Green Energy Fund	–	5,600	(5,600)	–
	Hana Financial Twenty-second Special Purpose Acquisition Company	–	1,600	–	1,600
	Hana Financial Twenty-third Special Purpose Acquisition Company	–	1,500	–	1,500
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	–	2,450	–	2,450
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	–	5,800	–	5,800
	Subtotal	18,719	86,565	(51,421)	53,863
Key management	Key management	3,596	1,906	–	5,502
Total		256,774	642,088	(520,395)	378,467

(*1) Deposits/Withdrawals arising from operations between related parties are excluded.

51-2-4 Details of significant borrowings from related parties for the years ended December 31, 2023 and 2022, are as follows (Korean won in millions):

<2023>

Classification	Entity	Beginning balance	Increase	Decrease	Others (*)	Ending balance
Associates	Bank of Jilin	–	36,276	–	–	36,276
	BIDV	10,740	100,016	(110,656)	(100)	–
Total		10,740	136,292	(110,656)	(100)	36,276

(*) Others include the effect of changes in exchange rate.

<2022>

Classification	Entity	Beginning balance	Increase	Decrease	Others (*)	Ending balance
Associate	BIDV	80,755	1,349,738	(1,422,233)	2,480	10,740

(*) Others include the effect of changes in exchange rate.

51-3 Outstanding receivables and payables with related parties arising from the above transactions as of December 31, 2023 and 2022, are as follows
(Korean won in millions):

◁December 31, 2023▷

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Ultimate parent company	HFG	–	6,578	–	281,569	86,654
Associates	Bank of Jilin	–	–	–	3,068	36,450
	CM International financing leases	59,778	–	47,866	17	–
	Beijing Langzi Asset Management Co., Ltd.	–	–	–	3,035	–
	Hana Equity Partners I, L.P	–	–	–	114	–
	Korea Credit Bureau	10,000	–	4	894	–
	Templeton Hana Asset Management Co., Ltd.	–	–	–	11,391	–
	Midan City Development Co., Ltd.	–	–	–	2	–
	Hana – KVIC Unicorn Fund of Funds	–	–	–	1,863	–
	BIDV	–	1,270	–	372	835
	Hana Ventures No.7 New Technology Business Investment Association	–	–	–	385	–
	SHINJIN INTERNATIONAL CORPORATION	–	1	–	–	–
	Sinsa Station area Complex Development PFV Co., Ltd.	9,800	–	9,957	–	–
	Hana-Capstone AI Platform Fund	–	–	–	14,462	–
	Cheongna Medipolis PFV Co., Ltd	–	–	–	2,570	–
	Hana Beyond Finance Fund	–	–	–	14,913	–
	UNION TCB FUND II	–	–	–	627	–
	Artificial Photosynthesis Lab Co.,Ltd.	–	–	–	1,718	–
	No.1 KEBHANASTAY REITS Co., Ltd	18,641	–	6	7,211	–
	MASHUP ANGELS VALUE UP FUND2	–	–	–	4,453	–
Subtotal		98,219	1,271	57,833	67,095	37,285
Joint venture	PT. SINARMAS HANA FINANCE	38,051	54	246	3	–
Entities under common control	Hana Securities Co., Ltd.	2,601	239,866	112	555,567	237,736
	Hana Card Co., Ltd.	–	11,961	199	918,319	47,505
	Hana Capital Co., Ltd.	–	27	112	134,104	4,789
	Hana Asset Trust Co., Ltd.	–	1	–	33,937	373
	Hana Alternative Asset Management Co., Ltd.	–	3,172	–	112,125	968
	Hana TI Co., Ltd.	–	207,398	–	17,932	221,166
	Hana Life Insurance Co., Ltd.	–	5,454	–	–	3,769
	Hana Investors Services Company	–	3,067	–	7,758	819
	Hana Ventures Inc.	–	–	–	21,007	636
	Hana F&I Inc	90,200	1,073	202	36,067	283
	Hana Ventures No.4 New Technology Business Investment Association	–	–	–	148	–
	Hana Insurance, Co., Ltd.	–	1	–	519	–
	Hana Ventures No.6 New Technology Business Investment Association	–	–	–	116	–
	Hana Alternative Investment PRC Logistics General Private Investment Trust No.1(professional)	6,447	–	–	–	–
	Finnq Co., Ltd.	–	–	–	46,270	–
Subtotal		99,248	472,020	625	1,883,869	518,044
	Hana Power Infrastructure No.1 Private Investment Co., Ltd.	10,698	–	135	37,978	–

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Other related parties	Mirae Credit Information Services Corp.	-	-	-	1,888	-
	F&U Credit Information Co., Ltd.	-	-	-	996	-
	Lotte Ventures Corp.	-	-	-	1,554	-
	GMHB Co., Ltd.	-	-	-	100	-
	KORAMCO THE ONE REIT	-	1,354	-	-	-
	Daegu MBC Site Complex Development PFV	116,895	-	1,785	2	-
	YH Leisure Development Co., Ltd.	103,000	-	141	164	-
	Creation Innovation Co., Ltd.	-	-	-	106	-
	Hana Ventures No.5 New Technology Business Investment Association	-	-	-	509	-
	Hana Innovation Venture Scale-Up Fund	-	-	-	5,564	-
	Hana Must Seven Special Purpose Acquisition Company	-	-	-	1,331	-
	People Korea Two Co., Ltd.	-	-	-	36	-
	Gyeonggi Hana Turn around Fund No.2	-	-	-	6,120	-
	Hana Untact Digital Innovation Fund	-	-	-	2,477	-
	Imgok Rental Housing Co., Ltd.	-	-	-	1	-
	Hana Financial Twenty-first Special Purpose Acquisition Company	-	-	-	2,624	-
	Choice & Sojern Construction Co., Ltd.	-	-	-	104	-
	Hana Financial Twenty-second Special Purpose Acquisition Company	-	-	-	2,050	-
	Hana Financial Twenty-third Special Purpose Acquisition Company	-	-	-	1,475	-
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	-	-	-	3,024	-
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	-	-	-	6,636	-
	Eugene Asia Food Tech Fund-1	-	-	-	204	-
	Hana Financial Twenty-sixth Special Purpose Acquisition Company	-	-	-	2,238	-
	Hana Financial Twenty-seventh Special Purpose Acquisition Company	-	-	-	2,101	-
	Anda Mobility Infrastructure Fund No.1	-	-	-	760	-
	Hana Financial Twenty-eighth Special Purpose Acquisition Company	-	-	-	3,262	-
	Hana Financial Twenty-ninth Special Purpose Acquisition Company	-	-	-	2,007	-
	Anda Mobility Infrastructure Fund No.2	-	-	-	809	-
	HI-DOP MCE Industries Fund No.1	-	-	-	141	-
	HANA 30 Special Purpose Acquisition Company	-	-	-	3,051	-
	HANA 31 Special Purpose Acquisition Company	-	-	-	2,388	-
Subtotal		230,593	1,354	2,061	91,700	-
Key management	Key management	895	-	1	9,367	-
Total		467,006	481,277	60,766	2,333,603	641,983

◁December 31, 2022▷

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Ultimate parent company	HFG	–	8,715	–	28,718	672,478
Associates	Bank of Jilin	3,200	2,409	–	1,611	–
	CM International financing leases	61,969	–	49,620	18	–
	Beijing Langzi Asset Management Co., Ltd.	–	–	–	3,601	–
	Hana Equity Partners I, L.P	–	–	–	115	–
	Korea Credit Bureau	40,000	–	16	8,169	–
	Templeton Hana Asset Management Co., Ltd.	–	–	–	10,672	–
	Midan City Development Co., Ltd.	–	–	–	2	–
	Hana – KVIC Unicorn Fund of Funds	–	–	–	3,993	–
	BIDV	6,337	5,394	24	2,045	10,740
	Hana Ventures No. 7 New Technology Business Investment Association	–	–	–	495	–
	SHINJIN INTERNATIONAL CORPORATION	1,444	1	107	–	–
	Sinsa Station area Complex Development PFV Co., Ltd.	9,800	–	9,845	45	–
	Hana-Capstone AI Platform Fund	–	–	–	16,841	–
	Cheongna Medipolis PFV Co., Ltd	–	–	–	2,500	–
	Hana Beyond Finance Fund	–	–	–	42,439	–
Subtotal		122,750	7,804	59,612	92,546	10,740
Joint venture	PT. SINARMAS HANA FINANCE	37,144	47	229	5	–
Entities under common control	Hana Securities Co., Ltd.	3,239	69,942	100	925,719	151,692
	Hana Card Co., Ltd.	–	15,344	150	309,912	44,938
	Hana Capital Co., Ltd.	–	146	54	506,174	4,701
	Hana Asset Trust Co., Ltd.	–	–	–	179,749	1,968
	Hana Alternative Asset Management Co., Ltd.	–	4,229	–	36,762	1,114
	Hana TI Co., Ltd.	–	211,454	–	5,425	217,978
	Hana Life Insurance Co., Ltd.	–	8,691	–	–	4,671
	Hana Investors Services Company	–	4,090	–	4,190	841
	Hana Ventures Inc.	–	–	–	12,876	35
	Hana F&I Inc	–	1,430	27	40,340	284
	Hana Ventures No.4 New Technology Business Investment Association	–	–	–	245	–
	Hana Insurance. Co., Ltd.	–	–	–	35	–
	HANA ASSET MANAGEMENT ASIA PTE. Ltd.	–	–	–	5,117	–
	Hana Ventures No.6 New Technology Business Investment Association	–	–	–	249	–
	Finnq Co., Ltd.	–	–	–	53,949	–
Subtotal		3,239	315,326	331	2,080,742	428,222
	Gunsan bio-energy Corp.	–	–	–	549	–
	Hana Power Infrastructure No.1 Private Investment Co., Ltd.	11,116	–	170	4,264	–
	Mirae Credit Information Services Corp.	7,000	–	9	2,267	–
	UBS Hana Asset Management Co., Ltd.	–	–	–	18,287	–
	F&U Credit Information Co., Ltd.	–	–	–	1,149	–
	Lotte Ventures Corp.	–	–	–	96	–
	GMHB Co., Ltd.	–	–	–	100	–
	KORAMCO THE ONE REIT	–	1,354	–	–	–
	Dangsandong PFV Co., Ltd.	–	–	–	675	–
	Daegu MBC Site Complex Development PFV	94,708	–	1,127	2	–
	Lakebridge Growth First Private Investment Co., Ltd	–	–	–	330	–
	YH Leisure Development Co., Ltd.	112,323	–	172	5,045	–

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Other related parties	Creation Innovation Co., Ltd	-	-	-	70	-
	Hana Ventures No.5 New Technology Business Investment Association	-	-	-	592	-
	Hana Innovation Venture Scale-Up Fund	-	-	-	10,943	-
	Hana Must Seven Special Purpose Acquisition Company	-	-	-	1,389	-
	Hana Financial Sixteenth Special Purpose Acquisition Company	-	-	-	1,275	-
	Hana Financial Nineteenth Special Purpose Acquisition Company	-	-	-	2,423	-
	People Korea Two Co., Ltd.	-	-	-	47	-
	Hana Financial Twentieth Special Purpose Acquisition Company	-	-	-	778	-
	Gyeonggi Hana Turn around Fund No.2	-	-	-	11,370	-
	Hana Untact Digital Innovation Fund	-	-	-	8,252	-
	Imgok Rental Housing CO., Ltd.	-	-	-	38	-
	Hana Financial Twenty-first Special Purpose Acquisition Company	-	-	-	2,572	-
	Choice & Soyern Construction Co., Ltd.	-	-	-	104	-
	Hana Financial Twenty-second Special Purpose Acquisition Company	-	-	-	2,007	-
	Hana Financial Twenty-third Special Purpose Acquisition Company	-	-	-	1,911	-
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	-	-	-	2,954	-
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	-	-	-	6,536	-
	Eugene Asia Food Tech Fund-1	-	-	-	247	-
Subtotal		225,147	1,354	1,478	86,272	-
Key management	Key management	774	-	-	8,007	-
Total		389,054	333,246	61,650	2,296,290	1,111,440

51-4 Significant payment guarantees and collaterals provided to related parties as of December 31, 2023 and 2022, are as follows (Korean won in millions):

◁December 31, 2023▷

Classification	Entity	Payment guarantees or collaterals provided	Limit
Associates	Korea Credit Bureau	Unused loan commitments in Korean won	30,000
	Hana Micro Finance., Ltd.	Acceptance and guarantees in foreign currencies	64,470
	All Together Korea Fund 5	Purchase of securities	990,000
	Hana-New Deal K-Growth fund	Purchase of securities	61,200
	Taurus Cloud Fund	Purchase of securities	430
	Hana Beyond Finance Fund	Purchase of securities	48,000
	Defense Technology Innovation Private Investment Trust	Purchase of securities	50,150
	UNION TCB FUND II	Purchase of securities	10,800
	No.1 KEBHANASTAY REITS Co., Ltd	Unused loan commitments in Korean won	1,259
Joint venture	PT. SINARMAS HANA FINANCE	Unused loan commitments in foreign currencies	3,113
Entities under common control	Hana Securities Co., Ltd.	Unused loan commitments in Korean won	130,000
		Acceptance and guarantees in Korean won	626
	Hana Card Co., Ltd.	Unused loan commitments in Korean won	500,000
		Acceptance and guarantees in foreign currencies	40,000
	Hana Capital Co., Ltd.	Unused loan commitments in Korean won	260,000
	Hana TI Co., Ltd.	Unused loan commitments in Korean won	7
	Hana F&I Inc.	Unused loan commitments in Korean won	249,800
	Hana Alternative Infra Special Investment Private Trust No.3-1	Purchase of securities	2,085
	Hana Alternative Infra Special Investment Private Trust No.3-4	Purchase of securities	18,451
	Hana Alternative General Private Real Estate Investment Trust No.180	Purchase of securities	78,402
	Hana Alternative Infrastructure General Private Special Asset Fund No.1 (Professional)	Purchase of securities	30,863
Other related parties	Hana Digital Transformation Fund	Purchase of securities	1,000
	Daegu MBC Site Complex Development PFV	Unused loan commitments in Korean won	43,105
	Hana Innovation Venture Scale-Up Fund	Purchase of securities	520
	Gyeonggi Hana Turn around Fund No.2	Purchase of securities	450
	Hana Untact Digital Innovation Fund	Purchase of securities	450
	Hana K-NewDeal Unicorn Fund	Purchase of securities	9,000
	Nautic Green Innovation ESG Co-investment No. 1 Private Equity Fund	Purchase of securities	672
	KDBI-HANA Business Reorganization Value-up Private Equity Fund	Purchase of securities	42,298

<December 31, 2022>

Classification	Entity	Payment guarantees or collaterals provided	Limit
Associates	Hana Micro Finance., Ltd.	Acceptance and guarantees in foreign currencies	98,849
	Hana-New Deal K-Growth fund	Purchase of securities	65,700
	Taurus Cloud Fund	Purchase of securities	522
	Hana Beyond Finance Fund	Purchase of securities	56,000
	Cheongna Medipolis PFV Co., Ltd.	Purchase of securities	16,628
	Templeton Hana Asset Management Co., Ltd.	Purchase of securities	4,619
	All Together Korea Fund 5	Purchase of securities	990,000
	Defense Technology Innovation Private Investment Trust	Purchase of securities	56,050
Joint venture	PT. SINARMAS HANA FINANCE	Unused loan commitments in foreign currencies	1,688
Entities under common control	Hana Alternative Infra Special Investment Private Trust No.3-1	Purchase of securities	5,761
	Hana F&I Inc	Unused loan commitments in Korean won	140,000
	Hana Card Co., Ltd.	Unused loan commitments in Korean won	500,000
		Acceptance and guarantees in foreign currencies	40,000
	Hana Capital Co., Ltd.	Unused loan commitments in Korean won	260,000
	Hana Alternative Infra Special Investment Private Trust No.3-4	Purchase of securities	2,632
	Hana Securities Co., Ltd.	Unused loan commitments in Korean won	130,000
Other related parties	Hana Alternative General Private Real Estate Investment Trust No.180	Purchase of securities	114,359
	Hana Digital Transformation Fund	Purchase of securities	1,000
	Hana Innovation Venture Scale-Up Fund	Purchase of securities	520
	Daegu MBC Site Complex Development PFV	Unused loan commitments in Korean won	65,292
	Gyeonggi Hana Turn around Fund No.2	Purchase of securities	450
	Hana Untact Digital Innovation Fund	Purchase of securities	450
	Hana K-NewDeal Unicorn Fund	Purchase of securities	10,800

51-5 Significant payment guarantees and collaterals provided from related parties as of December 31, 2023 and 2022, are as follows
(Korean won in millions):

◁December 31, 2023▷

Classification	Entity	Payment guarantees or collaterals provided	Limit
Associate	BIDV	Acceptance and guarantees in foreign currencies	59,120
Entities under common control	Hana Securities Co., Ltd.	Collateral provided	70,000
		Unsettled arrangements	2,550,693
	Hana Card Co., Ltd.	Unused loan commitments in Korean won	138,607
		Unsettled arrangements	206,857
	Hana Capital Co., Ltd.	Collateral provided	475,557
	Hana Life Insurance Co., Ltd.	Collateral provided	15,000
		Unsettled arrangements	104,872
	Hana F&I Inc.	Collateral provided	790,621
	Hana Insurance Co., Ltd.	Collateral provided	1,870
	Finnq Co., Ltd.	Collateral provided	50

◁December 31, 2022▷

Classification	Entity	Payment guarantees or collaterals provided	Limit
Associate	BIDV	Acceptance and guarantees in foreign currencies	59,306
Entities under common control	Hana Life Insurance Co., Ltd.	Collateral provided	13,525
		Unsettled arrangements	94,633
	Hana F&I Inc	Collateral provided	271,875
	Hana Card Co., Ltd.	Unsettled arrangements	307,812
		Unused loan commitments in Korean won	139,110
	Hana Capital Co., Ltd.	Collateral provided	475,051
	Finnq Co., Ltd.	Collateral provided	50
	Hana Securities Co., Ltd.(*)	Collateral provided	70,000
		Unsettled arrangements	3,654,925

(*) As a swap bank of investment trust to which Hana Securities Co., Ltd. is committed to purchase private bonds, the Group is provided with an obligation for additional investment or supplementation of forward exchange or currency swap of investment trust.

51-6 The amounts of intangible assets and others acquired by Hana TI Co., Ltd. for the years ended December 31, 2023 and 2022, are ₩4,590 million and ₩10,867 million, respectively.

51-7 The defined benefit plans deposited to Hana Securities Co., Ltd. as of December 31, 2023 and 2022, are ₩116,406 million and ₩111,311 million, respectively.

51-8 The amounts of bonds the Group purchased through Hana Securities Co., Ltd. for the years ended December 31, 2023 and 2022, are ₩1,207,700 million and ₩2,427,089 million, respectively, and the amounts sold are ₩132,826 million and ₩100,878 million, respectively.

51-9 For the year ended December 31, 2022, the Group purchased land from Hana TI Company Ltd., and the carrying amount of the purchased land was ₩226,530 million.

51-10 Details of compensation for standing directors and executive officers for the years ended December 31, 2023 and 2022, are as follows
(Korean won in millions):

Classification	2023	2022
Short-term employee payment	25,271	19,986
Retirement benefit	311	682
Share-based payment	3,698	3,297

Independent Auditor's Report

To the Shareholders and Board of Directors

Hana Bank Co., Ltd. and its subsidiaries:

Audit Opinion

We have audited the accompanying consolidated financial statements of Hana Bank Co., Ltd. (the "Bank") and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statement of financial position as of December 31, 2022, and the related consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cashflows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2022, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Korean International Financial Reporting Standards ("K-IFRSs").

Basis for Audit opinion

We conducted our audit in accordance with Korean Standards on Auditing ("KSAs"). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other matter

The Group's consolidated financial statements for the reporting period ended December 31, 2021, were audited by Ernst & Young Han Young in accordance with K-IFRSs, and in this auditor's report dated March 10, 2022, an unqualified opinion was expressed. Meanwhile, the consolidated financial statements for which the auditor expressed an unqualified opinion are the financial statements before reflecting the adjustments described in Note 2-2-8 to the financial statements, and the financial statements as of and for the year ended December 31, 2021, shown for comparison, are consolidated financial statement that reflect the adjustments.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with K-IFRSs, and for such internal control as management determines is necessary to enable the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with KSAs, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.



- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Deloitte Idnjin LLC

March 10, 2023

This audit report is effective as of March 10, 2023, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the date of the independent auditor's report to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

Independent Auditor's Report

The Shareholders and Board of Directors

Hana Bank Co., Ltd. and its subsidiaries

Opinion

We have audited the accompanying consolidated financial statements of Hana Bank (the "Bank") and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as of December 31, 2021 and 2020, and the consolidated statements of profit or loss and other comprehensive income, consolidated statements of changes in equity and consolidated statements of cashflows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2021 and 2020, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with Korean International Financial Reporting Standards ("KIFRS").

Basis for opinion

We conducted our audits in accordance with Korean Auditing Standards ("KGAAS"). Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the consolidated financial statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audits of the consolidated financial statements in the Republic of Korea, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the

audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of matter

We draw attention to the following items which the users of the consolidated financial statements may use as reference for reasonable decision making. As described in Note 28-8 to the consolidated financial statements, various prevention and controls measures, including travel restrictions, are being implemented worldwide to prevent the spread of COVID-19, and as a result, the global economy is affected extensively. The Group is concerned about the global economic difficulties and the uncertainties related to the prolonged economic conditions due to COVID-19. The Group periodically checks the uncertainties of COVID-19 that may affect the Group's operations and financial position. The ultimate impact due to COVID-19 on the Group's consolidated financial position, results of operations and cash flows is difficult to predict as of the date of our auditor's report. Our opinion is not modified in respect of this matter.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with KIFRS, and for such internal control as management determines is necessary to enable the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with KGAAS will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with KGAAS, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



March 10, 2022

This audit report is effective as of March 10, 2022, the independent auditor's report date. Accordingly, certain material subsequent events or circumstances may have occurred during the period from the date of the independent auditor's report to the time this report is used. Such events and circumstances could significantly affect the accompanying consolidated financial statements and may result in modifications to this report.

HANA BANK CO., LTD. and its subsidiaries

Consolidated Financial Statements
as of and for the years ended December 31, 2022 and 2021
(With the Independent Auditor's Report)

Consolidated Statements of Financial Position

As of December 31, 2022 and 2021

Hana Bank Co., Ltd. and its subsidiaries

(Korean won in millions)

Accounts	December 31, 2022		December 31, 2021	
Assets				
1. Cash and due from banks (Notes 4, 5, 6, 8, 10, 50)	41,087,857		27,693,932	
2. Financial assets at FVTPL (Notes 4, 5, 6, 7, 8, 11, 14, 16)	18,455,415		10,918,562	
3. Derivative assets used for hedging (Notes 4, 5, 6, 7, 8, 16)	8,062		68,670	
4. Financial assets at FVOCI (Notes 4, 5, 6, 7, 8, 12, 14)	32,960,581		35,234,358	
5. Securities at amortized cost (Notes 4, 5, 6, 7, 8, 13, 14)	37,583,487		22,467,884	
6. Loans (Notes 4, 5, 6, 7, 8, 15)	330,186,341		309,177,708	
7. Investments in associates and a joint venture (Note 17)	2,958,288		2,630,970	
8. Property, plant and equipment (Notes 9, 18)	2,426,014		2,004,441	
9. Investment properties (Notes 9, 19)	664,942		790,689	
10. Intangible assets (Notes 9, 20)	386,107		356,571	
11. Net defined benefit assets (Note 27)	77,160		—	
12. Current tax assets	24,733		18,141	
13. Deferred tax assets (Note 47)	316,018		182,851	
14. Other assets (Notes 4, 5, 6, 7, 8, 22)	13,505,955		13,864,730	
15. Merchant banking account assets (Notes 4, 5, 6, 8, 22)	4,631,361		4,741,939	
16. Non-current assets held for sale (Note 21)	36,423		42,130	
Total assets		485,308,744		430,193,576
Liabilities				
1. Deposits (Notes 4, 5, 6, 8, 23)	359,858,481		321,125,300	
2. Financial liabilities at FVTPL (Notes 4, 5, 6, 7, 8, 16, 24)	11,228,307		4,188,107	
3. Derivative liabilities used for hedging (Notes 4, 5, 6, 7, 8, 16)	516,418		111,192	
4. Borrowings (Notes 4, 5, 6, 7, 8, 25, 50)	22,256,597		17,524,480	
5. Debentures (Notes 4, 5, 6, 8, 26, 50)	26,233,339		27,699,757	
6. Net defined benefit liabilities (Note 27)	9,106		177,077	
7. Provisions (Note 28)	564,978		518,964	
8. Current tax liabilities	726,579		566,972	
9. Deferred tax liabilities (Note 47)	2,259		151,143	
10. Other liabilities (Notes 4, 5, 6, 7, 8, 29, 50)	30,280,039		26,465,833	
11. Merchant banking account liabilities (Notes 4, 5, 6, 8, 29)	3,667,273		2,908,280	
Total liabilities		455,343,376		401,437,105
Equity				
Equity attributable to owners of the parent		29,685,969		28,489,982
1. Capital stock (Note 30)	5,359,578		5,359,578	
2. Capital surplus (Note 30)	6,159,820		9,653,868	
3. Hybrid equity securities (Note 30)	533,475		533,475	
4. Capital adjustments (Note 30)	(37,686)		(38,279)	

Accounts	December 31, 2022		December 31, 2021	
5. Retained earnings (Note 32) (Regulatory reserve for bad debts in the amount of: December 31, 2022 : ₩2,714,034 million December 31, 2021 : ₩2,426,281 million Required provision for bad debts in the amount of: December 31, 2022 : ₩(23,926) million December 31, 2021 : ₩287,753 million Planned provision for bad debts in the amount of: December 31, 2022 : ₩(23,926) million December 31, 2021 : ₩287,753 million) (Note 33)	19,236,315		13,897,317	
6. Accumulated other comprehensive loss (Note 31)	(1,565,533)		(915,977)	
Non-controlling interests		279,399		266,489
Total equity		29,965,368		28,756,471
Total liabilities and equity		485,308,744		430,193,576

"See notes to consolidated financial statements."

Consolidated Statements of Profit or Loss and Other Comprehensive Income

For the years ended December 31, 2022 and 2021

Hana Bank Co., Ltd. and its subsidiaries

(Korean won in millions)

Accounts	2022		2021	
I. Net interest income (Notes 9, 34, 35)		7,608,677		6,150,597
1. Interest income	13,347,231		8,786,664	
Interest income on financial instruments at FVOCI and AC	13,282,377		8,746,993	
Interest income on financial instruments at FVTPL	64,854		39,671	
2. Interest expenses	(5,738,554)		(2,636,067)	
II. Net fee and commission income (Notes 9, 34, 36)		593,612		552,794
1. Fees and commission income	874,721		837,656	
2. Fees and commission expenses	(281,109)		(284,862)	
III. Net gain on financial instruments at FVTPL (Notes 16, 34, 37)		124,701		548,567
IV. Net gain (loss) on derivative financial instruments used for hedging (Notes 34, 38)		(63,551)		(47,686)
V. Net gain on financial instruments at FVOCI (Notes 34, 39, 50)		2,162		79,260
VI. Net gain on financial instruments at AC (Notes 13, 34, 40)		4		20
VII. Provision for allowance for credit loss (Notes 34, 41)		(657,649)		(243,339)
VIII. General and administrative expenses (Notes 9, 34, 42)		(3,318,831)		(2,973,063)
IX. Other operating income (Notes 34, 43)		7,615,689		4,791,160
X. Other operating expenses (Notes 34, 44)		(7,838,212)		(5,439,873)
XI. Operating income		4,066,602		3,418,437
XII. Net non-operating income (expenses)		104,884		60,037
1. Non-operating income (Notes 9, 17, 45)	267,293		237,853	
Gain from using equity method	221,832		136,687	
Other income	45,461		101,166	
2. Non-operating expenses (Notes 9, 17, 46)	(162,409)		(177,816)	
Loss from using equity method	(32,819)		(9,015)	
Other expenses	(129,590)		(168,801)	
XIII. Income before income tax expenses		4,171,486		3,478,474
XIV. Income tax expenses (Notes 9, 47)		(1,059,787)		(902,728)
XV. Net income		3,111,699		2,575,746
1. Owners of the parent (Adjusted income after regulatory reserve for bad debt in the amount of December 31, 2022 : ₩3,119,771 million December 31, 2021 : ₩2,282,608 million) (Note 33)		3,095,845		2,570,361
2. Non-controlling interests		15,854		5,385
XVI. Other comprehensive income (loss) (Note 31)		(663,519)		140,698
Items that may be reclassified subsequently to profit or loss:	(600,406)		99,246	
1. Gain (Loss) on valuation of debt securities at FVOCI	(578,842)		(313,699)	
2. Gain (Loss) on translation of foreign operations	(2,710)		281,829	

Accounts	2022		2021	
3. Changes in equity on investments in associates	1,675		171,904	
4. Gain (Loss) on valuation of net investment hedges of foreign operations	(20,529)		(40,788)	
Items that will not be reclassified subsequently to profit or loss:	(63,113)		41,452	
1. Remeasurement of defined benefit plans	6,395		47,643	
2. Gain (Loss) on valuation of equity securities at FVOCI	(57,920)		8,639	
3. Changes in equity on investments in associates	273		(692)	
4. Gain (Loss) on valuation of fair value hedges	(11,861)		(14,138)	
XVII. Total comprehensive income		2,448,180		2,716,444
1. Owners of the parent	2,443,568		2,693,704	
2. Non-controlling interests	4,612		22,740	
XVIII. Earnings per share (Note 48) (Korean won)				
1. Basic earnings per share		2,866		2,389
2. Diluted earnings per share		2,866		2,389

"See notes to consolidated financial statements."

Consolidated Statements of Changes in Equity

For the years ended December 31, 2022 and 2021

Hana Bank Co., Ltd. and its subsidiaries

(Korean won in millions)

Accounts	Capital stock	Capital surplus	Hybrid equity securities	Capital adjustments	Retained earnings	Accumulated other comprehensive loss	Equity attributable to equity holder of the parent	Non-controlling interests	Total
I. As of January 1, 2021	5,359,578	9,654,018	179,737	(37,703)	12,414,342	(1,002,192)	26,567,780	243,749	26,811,529
Dividends	-	-	-	-	(714,700)	-	(714,700)	-	(714,700)
Interim dividend	-	-	-	-	(400,000)	-	(400,000)	-	(400,000)
Dividends on hybrid equity securities	-	-	-	-	(9,814)	-	(9,814)	-	(9,814)
Issuance of hybrid equity securities	-	-	353,738	-	-	-	353,738	-	353,738
Stock option	-	-	-	2	-	-	2	-	2
Acquisition of subsidiaries	-	(150)	-	-	-	-	(150)	-	(150)
Paid-in capital increases of subsidiaries	-	-	-	(578)	-	-	(578)	-	(578)
Reclassification of valuation gain or loss on equity securities at FVOCI upon derecognition	-	-	-	-	37,128	(37,128)	-	-	-
Subtotal	5,359,578	9,653,868	533,475	(38,279)	11,326,956	(1,039,320)	25,796,278	243,749	26,040,027
Net income	-	-	-	-	2,570,361	-	2,570,361	5,385	2,575,746
Loss on valuation of financial assets at FVOCI	-	-	-	-	-	(304,299)	(304,299)	(762)	(305,061)
Gain on translation of foreign operations	-	-	-	-	-	263,948	263,948	17,881	281,829
Loss on valuation of net investment hedges of foreign operations	-	-	-	-	-	(40,788)	(40,788)	-	(40,788)
Loss on valuation of fair value hedges	-	-	-	-	-	(14,137)	(14,137)	-	(14,137)
Remeasurement of defined benefit plans	-	-	-	-	-	47,407	47,407	236	47,643
Changes in equity on investments in associates	-	-	-	-	-	171,212	171,212	-	171,212
Total comprehensive income	-	-	-	-	2,570,361	123,343	2,693,704	22,740	2,716,444
II. As of December 31, 2021	5,359,578	9,653,868	533,475	(38,279)	13,897,317	(915,977)	28,489,982	266,489	28,756,471

Accounts	Capital stock	Capital surplus	Hybrid equity securities	Capital adjustments	Retained earnings	Accumulated other comprehensive loss	Equity attributable to equity holder of the parent	Non-controlling interests	Total
I. As of January 1, 2022	5,359,578	9,653,868	533,475	(38,279)	13,897,317	(915,977)	28,489,982	266,489	28,756,471
Dividends	-	-	-	-	(660,400)	-	(660,400)	-	(660,400)
Interim dividend	-	-	-	-	(570,000)	-	(570,000)	-	(570,000)
Dividends on hybrid equity securities	-	-	-	-	(23,770)	-	(23,770)	-	(23,770)
Stock option	-	-	-	15	-	-	15	-	15
Reduction in capital surplus	-	(3,500,000)	-	-	3,500,000	-	-	-	-
Paid-in capital increases of subsidiaries	-	5,952	-	-	-	44	5,996	8,298	14,294
Reclassification of valuation gain or loss on equity securities at FVOCI upon derecognition	-	-	-	-	(2,677)	2,677	-	-	-
Others	-	-	-	578	-	-	578	-	578
Subtotal	5,359,578	6,159,820	533,475	(37,696)	16,140,470	(913,256)	27,242,401	274,787	27,517,188
Net income	-	-	-	-	3,095,845	-	3,095,845	15,854	3,111,699
Loss on valuation of financial assets at FVOCI	-	-	-	-	-	(633,406)	(633,406)	(3,357)	(636,763)

Accounts	Capital stock	Capital surplus	Hybrid equity securities	Capital adjustments	Retained earnings	Accumulated other comprehensive loss	Equity attributable to equity holder of the parent	Non-controlling interests	Total
Gain on translation of foreign operations	-	-	-	-	-	5,158	5,158	(7,867)	(2,709)
Loss on valuation of net investment hedges of foreign operations	-	-	-	-	-	(20,529)	(20,529)	-	(20,529)
Loss on valuation of fair value hedges	-	-	-	-	-	(11,861)	(11,861)	-	(11,861)
Remeasurement of defined benefit plans	-	-	-	-	-	6,413	6,413	(18)	6,395
Changes in equity on investments in associates	-	-	-	-	-	1,948	1,948	-	1,948
Total comprehensive income	-	-	-	-	3,095,845	(652,277)	2,443,568	4,612	2,448,180
II. As of December 31, 2022	5,359,578	6,159,820	533,475	(37,686)	19,236,315	(1,565,533)	29,685,969	279,399	29,965,368

"See notes to consolidated financial statements."

Consolidated Statements of Cash Flows

For the years ended December 31, 2022 and 2021

Hana Bank Co., Ltd. and its subsidiaries

(Korean won in millions)

Accounts	2022	2021
I. Net cash flows provided by (used in) operating activities	27,162,831	8,312,411
1. Income before income tax expenses	4,171,486	3,478,474
2. Adjustments to income and expenses:	(7,619,475)	(6,162,004)
Interest expenses	5,738,554	2,636,067
Interest income	(13,347,231)	(8,786,664)
Dividend income	(10,798)	(11,407)
3. Adjustments to non-cash items:	2,142,309	1,363,945
Loss (Gain) on valuation of financial instruments at FVTPL	957,084	135,434
Loss (Gain) on disposal of financial instruments at FVTPL	17,774	(8,392)
Loss (Gain) on valuation of derivative instruments used for hedging	77,479	47,083
Gain on disposal of financial instruments at FVOCI	(2,162)	(79,260)
Provision for (Reversal of) loss on credit risk of financial instruments at FVOCI	(603)	(194)
Gain on disposal of financial instruments at amortized cost	(4)	(20)
Allowance for financial instruments at amortized cost	66,966	10,282
Net allowance for loans and other assets	591,286	233,251
Loss (Gain) on disposal of investments in associates and a joint venture	(2,315)	5,512
Impairment loss on investments in associates and a joint venture	520	628
Gain on equity method	(189,013)	(127,672)
Depreciation and amortization	465,049	451,498
Gain on disposal of property and equipment and intangible assets	(11,923)	(22,976)
Impairment loss on property and equipment and intangible assets	232	12,835
Loss on termination of right-of-use assets	360	2,633
Loss on disposal of right-of-use assets	670	-
Retirement benefits	144,346	158,520
Share-based payment expense	10,797	15,197
Net provisions transferred in	85,264	55,507
Net loss (gain) on foreign currency translation	(68,484)	473,690
Others	(1,014)	389
4. Changes in operating assets and liabilities:	20,866,397	4,170,847
Financial assets at FVTPL (items held for trading)	(7,437,089)	4,582,096
Derivative assets used for hedging	731	5,153
Loans	(15,917,597)	(19,361,233)
Net defined benefit assets	(77,160)	-
Other assets	1,152,513	(1,521,997)
Merchant banking account assets	111,591	(1,277,023)
Deposits	34,242,815	24,688,523
Financial liabilities at FVTPL	6,588,007	(4,353,288)
Derivative liabilities used for hedging	-	(1,848)
Net defined benefit liabilities	(303,480)	(288,313)
Provisions	(39,253)	(21,775)
Other liabilities	1,786,326	1,058,545
Merchant banking account liabilities	758,993	662,007
5. Cash provided by operating activities:	12,958,964	8,778,597
Interest received	12,935,766	8,753,788
Dividend received	23,198	24,809

Accounts	2022		2021	
6. Cash used in operating activities:	(5,356,850)		(3,317,448)	
Interest paid	(4,391,698)		(2,687,735)	
Income tax paid	(965,152)		(629,713)	
II. Net cash flows provided by (used in) investing activities		(14,765,081)		(7,276,612)
1. Increase in financial assets at FVTPL (other than items held for trading)	(6,985,446)		(14,250,824)	
2. Decrease in financial assets at FVTPL (other than items held for trading)	6,213,194		14,304,122	
3. Increase in financial assets at FVOCI	(10,734,129)		(18,757,341)	
4. Decrease in financial assets at FVOCI	12,359,959		16,853,173	
5. Increase in securities at amortized cost	(16,705,097)		(10,360,043)	
6. Decrease in securities at amortized cost	1,664,805		5,296,145	
7. Increase in investments in associates and a joint venture	(159,719)		(96,523)	
8. Decrease in investments in associates and a joint venture	11,664		300	
9. Acquisition of property and equipment	(375,988)		(334,946)	
10. Disposal of property and equipment	25,559		37,507	
11. Disposal of investment properties	19,997		76,501	
12. Acquisition of intangible assets	(151,556)		(126,690)	
13. Disposal of intangible assets	15		3,153	
14. Government grants	1,536		937	
15. Disposal of non-current assets held for sale	9,275		3,995	
16. Others	40,850		73,922	
III. Net cash flows provided by financing activities		1,022,872		1,449,875
1. Net decrease (increase) in borrowings	3,926,509		(510,352)	
2. Issuance of debentures	10,945,334		12,181,935	
3. Redemption of debentures	(12,410,394)		(9,238,614)	
4. Dividends paid	(1,230,400)		(1,114,700)	
5. Issuance of hybrid equity securities	–		353,739	
6. Dividends on hybrid equity securities	(23,770)		(9,814)	
7. Redemption of lease liabilities	(199,280)		(220,521)	
8. Change in equity ownership of subsidiaries	14,873		(727)	
9. Change in derivative used for hedging	–		8,929	
IV. Net increase (decrease) in cash and cash equivalents (I+ II+ III)		13,420,622		2,485,674
V. Cash and cash equivalents at the beginning of the year		25,478,635		22,354,459
VI. Effect of changes in exchange rate on cash and cash equivalents		(398,831)		638,502
VII. Cash and cash equivalents at the end of the year (Note 50)		38,500,426		25,478,635

"See notes to consolidated financial statements."

Notes to consolidated financial statements
as of and for the years ended December 31, 2022 and 2021

1. Company information

General information on Hana Bank Co., Ltd., previously Korea Exchange Bank (the "Bank" or the "Parent company") and its subsidiaries (collectively the "Group") in accordance with K-IFRS 1110 is as follows.

1-1 Summary of the Parent company (The Bank)

The Bank was established on January 30, 1967, as a government-controlled bank to engage in foreign exchange and trade finance business under the *Korea Exchange Bank Act* enacted on July 28, 1966. On December 30, 1989, the *Korea Exchange Bank Act* was repealed, and the Bank was reorganized as a stock company under the Commercial Act of the Republic of Korea. On April 4, 1994, the Bank was listed on the Korea Exchange (previously, Korea Stock Exchange). On February 28, 2004, the Bank merged its subsidiary, Korea Exchange Bank Credit Service Co., Ltd. On August 31, 2014, the Bank spun off its credit card division.

On February 9, 2012, Hana Financial Group Inc. ("HFG") had control over the Bank by acquiring 52.27% equity interest in the Bank, and later on April 5, 2013, the Bank became a wholly owned subsidiary of HFG after HFG acquired the remaining interest in the Bank through an all-inclusive exchange of the shares.

The Bank changed to its current name on September 1, 2015, following the merger of Korea Exchange Bank ("KEB Bank") and Hana Bank.

The Bank provides commercial banking service under the Banking Act of the Republic of Korea, trust banking service under the Financial Investment Services And Capital Markets Act, merchant banking service due to the merger with the Korea International Merchant Bank, foreign exchange business and other related businesses. As of December 31, 2021, the Bank's headquarter is located in Seoul

, with its 593 domestic branches (including 62 satellite offices) and 25 overseas branches (including one satellite offices and four offices).

The Bank is authorized to issue 2,000 million shares (par value amount : ₩5,000) of common stock, and as of December 31, 2022, after a number of capital increases and decreases, stock splits and conversion of preferred shares to common shares, the Bank has 1,071,915,717 shares of common stock issued and outstanding with the total capital stock amounting to ₩5,359,578 million.

The Group's consolidated financial statements as of and for the year ended December 31, 2022 were approved by the Board of Directors on March 6, 2023.

1-2 Scope and overview of consolidation

The Group's ownership percentages in its consolidated subsidiaries as of December 31, 2022 are summarized as follows (ownership in %):

Investee	Country	Major business	Share ratio (%)	Reporting date
Subsidiaries of Hana Bank				
Hana Bank (China) Co., Ltd.	China	Bank	100.00	2022.12.31
KEB Hana Bank Canada	Canada	Financial Business	100.00	2022.12.31
KEB Hana Bank (Deutschland) A.G. (KEBDAG)	Germany	Financial Business	100.00	2022.12.31
PT Bank KEB Hana (KEBI)	Indonesia	Financial Business	69.01	2022.12.31
Banco KEB Hana Do Brasil S.A. (KEBB)	Brazil	Financial Business	100.00	2022.12.31
KEB Hana NY Financial Corp (NYFinCo)	USA	Financial Business	100.00	2022.12.31
KEB Hana LA Financial Corp (LAFinCo)	USA	Financial Business	100.00	2022.12.31
KEB Hana Global Finance Limited (KHGF)	HongKong	Financial Business	100.00	2022.12.31
KEB RUS LLC.	Russia	Financial Business	99.99	2022.12.31
Hana Bancorp, Inc.	USA	Financial Business	96.77	2022.12.31
KEB Hana Bank Mexico	Mexico	Financial Business	99.99	2022.12.31
GLN international Inc.	Korea	Other financial business	85.44	2022.12.31
Hana Tech Value-Up Investment Fund (*)	Korea	Other financial business	98.04	2022.12.31
Hana 1Q Startup Investment Fund (*)	Korea	Other financial business	90.91	2022.12.31
Hana UBS Power PEF Invest Trust 21 (*)	Korea	Asset Management Company	100.00	2022.12.31
Hyundai Trust PEF Invest 16 (*)	Korea	Asset Management Company	100.00	2022.12.31
Kyobo AXA Tomorrow PEF Invest Trust KH-1 (*)	Korea	Asset Management Company	100.00	2022.12.31
Sevenstar Co., Ltd. (*)	Korea	Other financial business	–	2022.12.31
Marine Solution Co., Ltd. (*)	Korea	Other financial business	–	2022.12.31

Investee	Country	Major business	Share ratio (%)	Reporting date
Joong-ang star Co., Ltd. (*)	Korea	Other financial business	—	2022.12.31
Hana Display First Co., Ltd. (*)	Korea	Other financial business	—	2022.12.31
Ocean Betts The First Co., Ltd. (*)	Korea	Other financial business	—	2022.12.31
Hana H in the holdings 1st LLC (*)	Korea	Other financial business	—	2022.12.31
H-Plus 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
Hana CK 1st Co., Ltd (*)	Korea	Other financial business	—	2022.12.31
Hana H in the holdings 2nd LLC (*)	Korea	Other financial business	—	2022.12.31
PIOTOWER1st, LLC (*)	Korea	Other financial business	—	2022.12.31
HEONEQ1st, LLC (*)	Korea	Other financial business	—	2022.12.31
HOONEQ1st, LLC (*)	Korea	Other financial business	—	2022.12.31
H-Hotel1Q 1st LLC. (*)	Korea	Other financial business	—	2022.12.31
DPS 2nd Ltd (*)	Korea	Other financial business	—	2022.12.31
BBQ 1Q 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
SK office 1Q 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
Cleanenergy 1Q 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
HANA DL First Co., Ltd (*)	Korea	Other financial business	—	2022.12.31
HANA TERMINUS First Co., Ltd (*)	Korea	Other financial business	—	2022.12.31
THE HAM ONEQ 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
HANA BAY 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
HANA I.S 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
HANA I.G 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
GRAND ONEQ 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
THE MIRAE ONEQ 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
DONG DAEGU TERMINAL 2nd. LLC (*)	Korea	Other financial business	—	2022.12.31
KENDALL NO.9 1st. LLC (*)	Korea	Other financial business	—	2022.12.31
BYK3rd Co., Ltd (*)	Korea	Other financial business	—	2022.12.31
Mini Hana 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
Jinwoori 1Q 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
Hana Double H 1Q 4th Co.,Ltd (*)	Korea	Other financial business	—	2022.12.31
Hana Double H 1Q 5th Co.,Ltd (*)	Korea	Other financial business	—	2022.12.31
H-ECHO 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
HANA STARLORD 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
CLEAN WORLD 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
H-HANA 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
HANA ANANTI 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
One Q B777F 66872 Co., Ltd (*)	Cayman Islands	Other financial business	—	2022.12.31
NAE CHON HANA 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
DRAGON HANA 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
HANA BAEKSA LOGISTICS 1st, LLC (*)	Korea	Other financial business	—	2022.12.31
HANA S ONE Q 1st, LLC (*)	Korea	Other financial business	—	2022.12.31

Investee	Country	Major business	Share ratio (%)	Reporting date
HOME PLUS HANA CONNECT, LLC (*)	Korea	Other financial business	–	2022.12.31
Antarctica 1st, Ltd (*)	Korea	Other financial business	–	2022.12.31
Enerbility Hana 1st, Ltd (*)	Korea	Other financial business	–	2022.12.31
Hana Plant 1st, Ltd (*)	Korea	Other financial business	–	2022.12.31
Gs Hana 1st, Ltd (*)	Korea	Other financial business	–	2022.12.31
Cha Cha Hana 1st, Ltd (*)	Korea	Other financial business	–	2022.12.31
T A 1st, Ltd (*)	Korea	Other financial business	–	2022.12.31
Neostar 6th, Ltd (*)	Korea	Other financial business	–	2022.12.31
Galaxia 1Q 1st, Ltd (*)	Korea	Other financial business	–	2022.12.31
Trust accounts guaranteeing the repayment of principal (*)	Korea	Trust account	–	2022.12.31
Subsidiaries of Hana Bancorp, Inc.				
KEB Hana Bank USA	USA	Bank	100.00	2022.12.31

(*) Although the entity is a structured special purpose company (SPC), the Group recognized the entity as a subsidiary considering its exposure to variable returns and ability to direct its activities.

Condensed financial statements as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total Comprehensive income (loss)
Hana Bank (China) Co., Ltd.	10,666,735	9,554,035	1,112,700	526,554	(97,191)	(124,308)
KEB Hana Bank Canada	1,788,935	1,543,596	245,339	76,573	16,039	16,303
KEB Hana Bank (Deutschland) A.G.	1,157,221	1,028,804	128,417	44,421	8,627	9,374
PT Bank KEB Hana	3,841,423	2,979,403	862,020	316,465	51,563	15,327
Banco KEB Hana Do Brasil S.A.	208,558	168,209	40,349	25,795	2,791	6,908
KEB Hana NY Financial Corp.	368,894	296,550	72,344	10,870	980	5,569
KEB Hana LA Financial Corp.	682,091	590,785	91,306	24,511	6,441	11,807
KEB Hana Global Finance Limited	215,235	120,686	94,549	12,119	4,574	10,023
KEB Hana Bank Russia	1,208,118	1,110,804	97,314	67,425	13,862	20,559
Hana Bancorp, Inc.(*)	488,768	366,125	122,643	15,125	(940)	151
KEB Hana Bank Mexico	356,088	250,609	105,479	16,271	346	12,139
GLN International Co., Ltd.	57,439	1,267	56,172	257	(6,132)	(6,132)
Trust accounts guaranteeing the repayment of principal	1,579,252	1,557,875	21,377	39,811	(24,356)	(24,356)

(*) The amounts are consolidated amounts of the intermediate parent.

<December 31, 2021>

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Comprehensive income (loss)
Hana Bank (China) Co., Ltd.	10,673,261	9,436,252	1,237,009	481,552	57,141	194,157
KEB Hana Bank Canada	1,600,343	1,371,307	229,036	44,760	8,179	26,673
KEB Hana Bank (Deutschland) A.G.	1,117,471	998,428	119,043	28,462	6,390	6,682
PT Bank KEB Hana	3,630,748	2,784,056	846,692	236,060	17,520	72,677
Banco KEB Hana Do Brasil S.A.	214,635	181,193	33,442	15,569	2,675	3,157
KEB Hana NY Financial Corp.	283,007	216,233	66,774	4,767	478	5,946
KEB Hana LA Financial Corp.	469,226	389,727	79,499	13,000	5,286	11,566
KEB Hana Global Finance Limited	218,824	134,298	84,526	9,193	3,820	10,480
KEB Hana Bank Russia	725,579	648,823	76,756	29,521	5,553	2,725
Hana Bancorp, Inc.(*)	347,368	307,601	39,767	11,960	(470)	2,373
KEB Hana Bank Mexico	246,554	153,214	93,340	7,871	756	5,773
GLN International Co., Ltd.	48,592	1,177	47,415	2	(2,009)	(2,009)
Trust accounts guaranteeing the repayment of principal	1,699,941	1,654,207	45,734	35,802	407	407

(*) The amounts are consolidated amounts of the intermediate parent.

The following entities are excluded from the Group's scope of consolidation as of December 31, 2022 and 2021, since the group aimed at investing in majority owned companies or securities and has no control over the power of investee related activities, exposure to variable profits, and the ability to use power to influence the group's variable profits.

<December 31, 2022>

Company name	Country	Major business	Share ratio (%)
Hana – KMC Unicorn Fund of Funds	Korea	Investment	90.91
All Together Korea Fund 5	Korea	Investment	100.00
Hana-New Deal K-Growth fund	Korea	Investment	90.00
Defense Technology Innovation Private Investment Trust	Korea	Investment	98.33

<December 31, 2021>

Company name	Country	Major business	Share ratio (%)
Hana – KMC Unicorn Fund of Funds	Korea	Investment	90.91
All Together Korea Fund 5	Korea	Investment	100.00
Hana-New Deal K-Growth fund	Korea	Investment	90.00

Subsidiaries included in and excluded from the consolidation scope for the year ended December 31, 2022 are as follows:

Company	Reasons
Included in scope of consolidation:	
Subsidiaries of Hana Bank	
BYK 3rd Co., Ltd.	Newly invested
Mini Hana 1st, LLC	Newly invested
Jinwoori 1Q 1st, LLC	Newly invested
Hana Double H 1Q 4th Co.,Ltd	Newly invested
Hana Double H 1Q 5th Co.,Ltd	Newly invested
H-ECHO 1st, LLC	Newly invested
HANA STARLORD 1st, LLC	Newly invested

Company	Reasons
CLEAN WORLD 1st, LLC	Newly invested
H+HANA 1st, LLC	Newly invested
HANA ANANTI 1st, LLC	Newly invested
One Q B777F 66872 Co., Ltd.	Newly invested
NAE CHON HANA 1st, LLC	Newly invested
DRAGON HANA 1st, LLC	Newly invested
HANA BAEKSA LOGISTICS 1st, LLC	Newly invested
HANA S ONE Q 1st, LLC	Newly invested
HOME PLUS HANA CONNECT, LLC	Newly invested
Antarctica 1st, Ltd	Newly invested
Enerbility Hana 1st, Ltd	Newly invested
Hana Plant 1st, Ltd	Newly invested
Gs Hana 1st, Ltd	Newly invested
Cha Cha Hana 1st, Ltd	Newly invested
T A 1st, Ltd	Newly invested
Neostar 6th, Ltd	Newly invested
Galaxia 1Q 1st, Ltd	Newly invested
Excluded from the scope of consolidation:	
Subsidiaries of Hana Bank	
HI Leading Solution PEF Invest Trust 143 [Bond]	Excluded due to the disposal
BEST ONE Q 1st	Excluded due to the disposal (End of credit offering)
Netoneq 1st L.L.C	Excluded due to the disposal (End of credit offering)
DONGAM TOWER 1st Co., Ltd.	Excluded due to the disposal (End of credit offering)
Hana Double H 1Q 2nd Co., Ltd.	Excluded due to the disposal (End of credit offering)
Hana Double H 1Q 3rd Co., Ltd.	Excluded due to the disposal (End of credit offering)
KSPARTNERSHIP 1st 2020, Inc.	Excluded due to the disposal (End of credit offering)

1-2-1 Hana Bank (China) Co., Ltd. (Hana Bank China)

Hana Bank (China) Co., Ltd. (Hana Bank China) was incorporated in Beijing to engage in commercial banking, foreign currency exchanges and other related operations in China on December 14, 2007. The Bank contributed the assets and liabilities of the branches in Shanghai and Shenyang, and its interests in the International Bank of Qingdao, which is the subsidiary of the Bank, to the Hana Bank China in the form of equity contributions on December 24, 2007. Hana Bank China, one of subsidiaries in China, acquired and merged with KEB China, one of affiliates in the Hana Financial Group, on December 15, 2014. (Before the merger, equity interests in Hana Bank China were 59.7% for Hana Bank and 40.3% for Korea Exchange Bank). Its paid-in capital is 3.35 billion yuan (Share ratio : 100%) as of December 31, 2022.

1-2-2 KEB Hana Bank Canada

KEB Hana Bank Canada was established in Toronto, Canada, on October 6, 1981, to provide financial services to Korean companies and residents in Toronto and the surrounding area. Its paid-in capital is 83,400 thousand Canadian dollars (Share ratio : 100%) as of December 31, 2022.

1-2-3 KEB Hana Bank (Deutschland) A.G.

KEBDAG was established in Frankfurt, Germany, on December 29, 1992, to provide financial services to Korean companies and residents in Frankfurt and the surrounding area. Its paid-in capital is 23,008 thousand euro (Share ratio : 100%) as of December 31, 2022.

1-2-4 PT Bank KEB Hana

PT Bank KEB Hana was established in Jakarta, Indonesia, on November 5, 1990, to provide financial services to Korean companies and residents in Jakarta.

In accordance with the regulations of the Bank Indonesia, two or more local banks with the same ultimate parent company are prohibited to operate as an independent entity in Indonesia. Accordingly, PT Bank KEB Indonesia (KEBI), a subsidiary of the Bank, and PT Bank Hana, a subsidiary of Hana Bank, have completed a merger process on February 20, 2014, and changed the name to PT Bank KEB Hana. PTBank KEB Hana was incorporated into a subsidiary of KEB on February 28, 2014, since KEB owned the major shares of PT Bank KEB Hana after the acquisition. Its paid-in capital is 3,160,093 million rupiah (Share ratio : 69.01%) as of December 31, 2022.

1-2-5 Banco KEB Hana Do Brasil S.A. (KEBB)

KEBB was incorporated on May 21, 1999, to provide investment finance services for foreign clients, advisory services for domestic companies that seek to invest overseas, finance arrangement and security investment trust services. Its paid-in capital is 126,351 thousand reals (Share ratio : 100%) as of December 31, 2022.

1-2-6 KEB Hana NY Financial Corp. (NYFinCo)

NYFinCo was established in New York, USA, on April 8, 2004, to provide financial services to Korean companies and residents in New York and the surrounding area. Its paid-in capital is 1 dollar (Share ratio : 100%) as of December 31, 2022.

1-2-7 KEB Hana LA Financial Corp. (LAFinCo)

LAFinCo was established in Los Angeles, USA, on April 8, 2004, to provide financial services to Korean companies and residents in Los Angeles and the surrounding area. Its paid-in capital is 2 dollars (Share ratio : 100%) as of December 31, 2022.

1-2-8 KEB Hana Global Finance Limited (KHGF)

KHGF was established on July 2, 2009, in Hong Kong to provide investment finance services for foreign clients, advisory services for domestic companies that seek to invest overseas, finance arrangement and security investment trust services. Its paid-in capital is 50,000 thousand dollars (Share ratio : 100%) as of December 31, 2022.

1-2-9 KEB RUS LLC

KEB launched a Moscow representative office in 2008 to provide financial information and consulting services for Korean and local companies in Russia. KEB RUS LLC was established on August 15, 2014, after obtaining permission to operate corporation from Russian supervisory authorities in order to expand the business area. Its paid-in capital is 4.78 billion RUB (Share ratio : 99.99%) as of December 31, 2022.

1-2-10 Hana Bancorp, Inc.

Hana Bancorp, Inc. (previously, BNB Financial Service Corporation) was incorporated on April 8, 1988, to engage in the bank and related businesses. HFG acquired ownership of BNB Financial Service Corporation and incorporated Hana Bancorp, Inc. as its subsidiary on August 30, 2013, and changed the name to Hana Bancorp, Inc. The Bank purchased the securities from HFG on March 28, 2016. Its paid-in capital is 48,596 thousand dollars (Share ratio : 96.77%) as of December 31, 2022.

1-2-11 KEB Hana Bank Mexico

KEB Hana Bank Mexico was established in Mexico City on November 3, 2017, to engage in provision of financial services to Korean companies and local corporations and obtained approval for the commencement of business from the local supervisory agency on January 31, 2019. Its paid-in capital is 1,666,828 thousand Mexican pesos (Share ratio : 99.99%) as of December 31, 2022.

1-2-12 GLN International Co., Ltd.

GLN International Co., Ltd. was established in Korea on July 7, 2021, and primarily engages in the electronic finance business (global payment brokerage, etc.). Its paid-in capital is 58.5 billion Korean won (Share ratio : 85.44%) as of December 31, 2022.

1-3 Structured entities

1-3-1 Consolidated structured entities

1-3-1-1 Hana UBS Power PEF Invest Trust 21 and a set of two other private equity investment vehicles

In accordance with K-IFRS 1110 *Consolidated Financial Statements*, two other private equity investment vehicles and Hana UBS Power PEF Invest Trust 21 were included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-2 Sevenstar Co., Ltd. and 50 other special purpose entities

In accordance with K-IFRS 1110 *Consolidated Financial Statements*, 50 special purpose companies and Sevenstar Co., Ltd. were included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-3 Trust accounts

In accordance with K-IFRS 1110 *Consolidated Financial Statements*, trust accounts are included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-4 Hana Tech Value-Up Investment Fund and one other fund

In accordance with K-IFRS 1110 *Consolidated Financial Statements*, Hana Tech Value-Up Investment Fund and one other fund are included in consolidation scope because the Group has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee.

1-3-1-5 Contractual commitments to consolidated structured entities

The consolidated structured company for the securitization of assets is established for the securitization of loans. The Group is involved in the acquisition of subordinated bonds issued by the consolidated structured company or provided credit for the asset-backed commercial paper and others, and is exposed to the risk of not being able to recover the acquisition amounts based on the investment performance. Characteristics and intentions of contractual commitments offered by the Group to the consolidated structured entities are as follows:

Company name	The characteristics and purposes	Intention
Development trust and other trusts	The Group offers principal conservation commitment to trust accounts. The Group is required to conserve the deficit amount in case the trust account stands below the principal as a result of the operation.	Credit risk mitigation on financial management of trust account
Hana Display First Co., Ltd.	The Group partially purchased asset-backed commercial paper (ABCP) (purchase commitment of ₩200,000 million) from Hana Display First Co., Ltd.	Operating activities
Ocean Betts The First Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Ocean Betts The First Co., Ltd.	Operating activities
Hana H in the holdings 1st LLC.	The Group partially purchased ABCP (purchase commitment of ₩150,000 million) from Hana H in the holdings 1st LLC.	Operating activities
H-Plus 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from H-Plus 1st, L.L.C.	Operating activities
Hana CK 1st Co., Ltd	The Group partially purchased ABCP (purchase commitment of ₩57,300 million) from Hana CK 1st Co., Ltd	Operating activities
Hana H in the holdings 2nd, LLC.	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Hana H in the holdings 2nd, LLC	Operating activities
PIOTOWER1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from PIOTOWER1st, LLC	Operating activities
HEONEQ1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HEONEQ1st L.L.C	Operating activities
HOONEQ1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HOONEQ1st L.L.C	Operating activities
DPS 2nd Ltd.	The Group partially purchased ABCP (purchase commitment of ₩45,700 million) from DPS 2nd Ltd.	Operating activities
H+Hotel1Q 1st LLC.	The Group partially purchased ABCP (purchase commitment of ₩48,000 million) from H+Hotel1Q 1st LLC.	Operating activities
BBQ 1Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from BBQ 1Q 1st, LLC	Operating activities
SK Office 1q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from SK Office 1q 1st, LLC	Operating activities
Cleanenergy 1Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from Cleanenergy 1Q 1st, LLC	Operating activities
HANA DL First Co., Ltd	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HANA DL First Co., Ltd	Operating activities
HANA TERMINUS First Co., Ltd	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HANA TERMINUS First Co., Ltd	Operating activities
THE HAM ONEQ 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩40,000 million) from THE HAM ONEQ 1st, LLC	Operating activities
HANA I.G 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from HANA I.G 1st, LLC	Operating activities
GRAND ONEQ 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩40,000 million) from GRAND ONEQ 1st, LLC	Operating activities
THE MIRAE ONEQ 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from THE MIRAE ONEQ 1st, LLC	Operating activities
DONG DAEGU TERMINAL 2nd, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from DONG DAEGU TERMINAL 2nd, LLC	Operating activities
KENDALL NO.9 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,300 million) from KENDALL NO.9 1st, LLC	Operating activities
BYK 3rd Co., Ltd.	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from BYK 3rd Co., Ltd.	Operating activities
Mini Hana 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from Mini Hana 1st, LLC	Operating activities
Jinwoori 1Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from Jinwoori 1q 1st, LLC	Operating activities
Hana Double H 1Q 4th Co.,Ltd	The Group partially purchased ABCP (purchase commitment of ₩11,100 million) from Hana Double H 1Q 4th Co.,Ltd	Operating activities

Company name	The characteristics and purposes	Intention
Hana Double H 1Q 5th Co.,Ltd	The Group partially purchased ABCP (purchase commitment of ₩11,100 million) from Hana Double H 1Q 5th Co.,Ltd	Operating activities
H-ECHO 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩80,000 million) from H-ECHO 1st, LLC	Operating activities
HANA STARLORD 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from HANA STARLORD 1st, LLC	Operating activities
CLEAN WORLD 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩20,000 million) from CLEAN WORLD 1st, LLC	Operating activities
H-HANA 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩90,000 million) from H-HANA 1st, LLC	Operating activities
HANA ANANTI 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from HANA ANANTI 1st, LLC	Operating activities
NAE CHON HANA 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩49,600 million) from NAE CHON HANA 1st, LLC	Operating activities
DRAGON HANA 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from DRAGON HANA 1st, LLC	Operating activities
HANA BAEKSA LOGISTICS 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩34,600 million) from HANA BAEKSA LOGISTICS 1st, LLC	Operating activities
HANA S ONE Q 1st, LLC	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from HANA S ONE Q 1st, LLC	Operating activities
HOME PLUS HANA CONNECT, LLC	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from HOME PLUS HANA CONNECT, LLC	Operating activities
Antarctica 1st, Ltd	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from Antarctica 1st, Ltd	Operating activities
Enerbility Hana 1st, Ltd	The Group partially purchased ABCP (purchase commitment of ₩50,000 million) from Enerbility Hana 1st, Ltd	Operating activities
Hana Plant 1st, Ltd	The Group partially purchased ABCP (purchase commitment of ₩100,000 million) from Hana Plant 1st, Ltd	Operating activities
Gs Hana 1st, Ltd	The Group partially purchased ABCP (purchase commitment of ₩60,000 million) from Gs Hana 1st, Ltd	Operating activities
Cha Cha Hana 1st, Ltd	The Group partially purchased ABCP (purchase commitment of ₩30,000 million) from Cha Cha Hana 1st, Ltd	Operating activities
T A 1st, Ltd	The Group partially purchased ABCP (purchase commitment of ₩10,000 million) from T A 1st, Ltd	Operating activities
Neostar 6th, Ltd	The Group partially purchased ABCP (purchase commitment of ₩40,000 million) from Neostar 6th, Ltd	Operating activities
Galaxia 1Q 1st, Ltd	The Group partially purchased ABCP (purchase commitment of ₩26,300 million) from Galaxia 1Q 1st, Ltd	Operating activities
Hana Tech Value-Up Investment Fund	The Group is providing an additional commitment of 15 billion won to Hana Tech Value-Up Investment Fund	Operating activities

1-3-2 Unconsolidated structured entities

1-3-2-1 The nature of the Group's interests in unconsolidated structured entities

Details of the nature of the Group's interests in unconsolidated structured entities as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Type	Characteristics and purposes	Major method of financing arrangement	Total assets	
			December 31, 2022	December 31, 2021
Special purpose company securitization	Securitization of backed asset	Issuing ABL/ABCP and others	7,029,016	6,712,934
Real estate finance	Operation for real estate (including social overhead capital (SOC)) development	Investment and borrowing	114,016,572	21,698,071
Shipping finance and primary market finance	Building or purchasing ships and non performing loan (NPL) purchase, M&A	Investment and borrowing	40,597,660	16,377,650
Investment fund and trust	Managing investment property	Issuing beneficiary certificates	135,837,775	114,822,595

1-3-2-2 Maximum exposure to loss from interests in unconsolidated structured entities (Korean won in millions)

<December 31, 2022>

Classification	Special purpose company	Real estate finance	Shipping finance and primary market finance	Investment fund and trust
Assets				
Loans (A)	772,224	3,594,661	1,523,953	1,022,347
Securities (B)	1	65,156	–	11,640,474
Derivatives (C)	8,778	6,104	19,536	–
Others (D)	1,430	16,301	8,883	–
Liabilities				
Derivative liabilities	41,255	2,347	6,460	–
Provisions	206	2,365	490	63
Others	17	61	45	–
Carrying amount of net asset	740,955	3,677,449	1,545,377	12,662,758
Maximum exposure to loss	1,077,495	4,508,450	1,906,570	15,013,673
Financial assets (A+B+C+D)	782,433	3,682,222	1,552,372	12,662,821
Credit and other commitment	295,062	826,228	354,198	2,350,852

<December 31, 2021>

Classification	Special purpose company	Real estate finance	Shipping finance and primary market finance	Investment fund and trust
Assets				
Loans (A)	352,998	2,123,688	1,095,757	952,946
Securities (B)	1	29,347	–	9,774,345
Derivatives (C)	4,391	3,782	12,639	–
Others (D)	1,253	6,988	4,694	–
Liabilities				
Derivative liabilities	6,574	170	1,200	–
Provisions	2,198	2,265	979	241
Others	24	124	61	–
Carrying amount of net asset	349,847	2,161,246	1,110,850	10,727,050
Maximum exposure to loss	1,185,938	3,109,342	1,575,275	12,188,753
Financial assets (A+B+C+D)	358,643	2,163,805	1,113,090	10,727,291
Credit and other commitment	827,295	945,537	462,185	1,461,462

2. Basis of preparation and significant accounting policies

2-1 Basis of preparation

The Group prepares statutory financial statements in Korean in accordance with Korean International Financial Reporting Standards ("K-IFRS") enacted by the Act on External Audit of Stock Companies. The accompanying consolidated financial statements have been translated into English from statements prepared in Korean. In the event of any differences in interpreting the financial statements or the independent auditor's report thereon, Korean version, which is used for regulatory reporting purposes, shall prevail.

2-2 Changes in significant accounting policies

The significant accounting policies used for the preparation of the consolidated financial statements are the same as those adopted in preparing consolidated financial statements for the year ended December 31, 2021, except for the adoption of new standards and interpretations effective as of January 1, 2022.

Changes in accounting policies in accordance with the adoption of new standards and interpretations for the current reporting period are as follows:

2-2-1 K-IFRS 1103 *Business Combinations – Reference to the Conceptual Framework (Amendment)*

The amendments update K-IFRS 1103 so that it refers to the Conceptual Framework (2018) instead of the Framework (2007). They also add to K-IFRS 1103 a requirement that, for obligations within the scope of K-IFRS 1037, an acquirer applies K-IFRS 1037 to determine whether at the acquisition date a present obligation exists as a result of past events. For a levy that would be within the scope of K-IFRS 2121 *Levies*, the acquirer applies K-IFRS 2121 to determine whether the obligating event that gives rise to a liability to pay the levy has occurred by the acquisition date. Finally, the amendments add an explicit statement that an acquirer does not recognize contingent assets acquired in a business combination.

The amendments are effective for business combinations for which the date of acquisition is on or after the beginning of the first annual period beginning on or after January 1, 2022. There is no material impact of this amendment on the Group's consolidated financial statements.

2-2-2 K-IFRS 1037 Provisions, Contingent Liabilities and Contingent Assets – Onerous Contracts – Cost of Fulfilling a Contract (Amendment)

The amendment specifies that the 'cost of fulfilling a contract' comprises the 'costs that relate directly to the contract.' Costs that relate directly to a contract consist of both the incremental costs of fulfilling that contract (examples would be direct labor or materials) and an allocation of other costs that relate directly to fulfilling contracts (an example would be the allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract).

The amendment applies to contracts for which the entity has not yet fulfilled all its obligations at the beginning of the annual reporting period in which the entity first applies the amendments. Comparatives are not restated. Instead, the entity shall recognize the cumulative effect of initially applying the amendments as an adjustment to the opening balance of retained earnings or other component of equity, as appropriate, at the date of initial application. There is no material impact of this amendment on the Group's consolidated financial statements.

2-2-3 Annual Improvements to K-IFRSs 2018-2020

The annual improvements include amendments to four standards such as K-IFRS 1101 *First-Time Adoption of K-IFRSs*, K-IFRS 1109 *Financial Instruments*, K-IFRS 1116 *Leases*, and K-IFRS 1041 *Agriculture*.

2-2-3-1 K-IFRS 1101 *First-time Adoption of K-IFRSs (Amendment)*

The amendment provides additional exemption to a subsidiary, which becomes a first-time adopter later than its parent in respect of accounting for cumulative translation differences. As a result of the amendment, a subsidiary that uses the exemption in K-IFRS 1101 paragraph D16(1) can now also elect to measure cumulative translation differences for all foreign operations at the carrying amount that would be included in the parent's consolidated financial statements, based on the parent's date of transition to K-IFRSs, if no adjustments were made for consolidation procedures and for the effects of the business combination in which the parent acquired the subsidiary. A similar election is available to an associate or joint venture that uses the exemption in K-IFRS 1101 paragraph D16(1). There is no material impact of this amendment on the Group's consolidated financial statements.

2-2-3-2 K-IFRS 1109 *Financial Instruments (Amendment)*

The amendment clarifies that in applying the '10 percent' test to assess whether to derecognize a financial liability, an entity includes only fees paid or received between the entity (the borrower) and the lender, including fees paid or received by either the entity or the lender on the other's behalf. The amendment is applied prospectively to modifications and exchanges that occur on or after the date the entity first applies the amendment. There is no material impact of this amendment on the Group's consolidated financial statements.

2-2-3-3 K-IFRS 1116 *Leases (Amendment)*

The amendment removes the illustration of the reimbursement of leasehold improvements. There is no material impact of this amendment on Group's consolidated financial statements.

The new and amended standards and interpretations that are issued, but not yet effective, up to the date of issuance of the Group's consolidated financial statements are disclosed below.

2-2-4 K-IFRS 1001 *Presentation of Financial Statements and IFRS Practice Statement 2 Making Materiality Judgements – Disclosure of Accounting Policies (Amendments)*

The amendment changes the requirements in K-IFRS 1001 with regard to disclosure of accounting policies. The amendments replace all instances of the term 'significant accounting policies' with 'material accounting policy information.' ' Accounting policy information is material if, when considered together with other information included in an entity's financial statements, it can reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements.

The supporting paragraphs in K-IFRS 1001 are also amended to clarify that accounting policy information that relates to immaterial transactions, other events or conditions is immaterial and need not be disclosed. Accounting policy information may be material because of the nature of the related transactions, other events or conditions, even if the amounts are immaterial. However, not all accounting policy information relating to material transactions, other events or conditions is itself material. The board has also developed guidance and examples to explain and demonstrate the application of the 'four-step materiality process' described in IFRS Practice Statement 2. The amendment to K-IFRS 1001 is effective for annual periods beginning on or after January 1, 2023, with earlier application permitted and are applied prospectively. The amendments to IFRS Practice Statement 2 do not contain an effective date or transition requirements.

2-2-5 K-IFRS 1001 *Presentation of Financial Statements– Disclosure of financial liabilities with condition to adjust exercise price (Amendment)*

The amendments require disclosure of valuation gains or losses (limited to those recognized in the profit or loss) of the conversion options or warrants (or financial liabilities including them), if all or part of the financial instrument with exercise price that is adjusted depending on the issuer's share price change is classified as financial liability as defined in paragraph 11 (2) of K-IFRS 1032.

The amendments are applied retrospectively for annual periods beginning on or after January 1, 2023, with early application permitted.

2-2-6 K-IFRS 1008 *Accounting Policies, Changes in Accounting Estimates and Errors – Definition of Accounting Estimates (Amendments)*

The amendment replaces the definition of a change in accounting estimates with a definition of accounting estimates. Under the new definition, accounting estimates are "monetary amounts in financial statements that are subject to measurement uncertainty."

The definition of a change in accounting estimates was deleted. However, the IASB retained the concept of changes in accounting estimates in the Standard with the following clarifications:

- A change in accounting estimate that results from new information or new developments is not the correction of an error
- The effects of a change in an input or a measurement technique used to develop an accounting estimate are changes in accounting estimates if they do not result from the correction of prior period errors

The amendment is effective for annual periods beginning on or after January 1, 2023, to changes in accounting policies and changes in accounting estimates that occur on or after the beginning of that period, with earlier application permitted.

2-2-7 K-IFRS 1012 Income Taxes – Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments)

The amendment reduces the scope of the initial recognition exception. Under the amendment, an entity does not apply the initial recognition exemption for transactions that give rise to equal taxable and deductible temporary differences. Depending on the applicable tax law, equal taxable and deductible temporary differences may arise on initial recognition of an asset and liability in a transaction that is not a business combination and affects neither accounting nor taxable profit. For example, this may arise upon recognition of a lease liability and the corresponding right-of-use asset applying K-IFRS 1116 at the commencement date of a lease. Following the amendment to K-IFRS 1012, an entity is required to recognize the related deferred tax asset and liability, with the recognition of any deferred tax asset being subject to the recoverability criteria in K-IFRS 1012.

The amendments apply to transactions that occur on or after the beginning of the earliest comparative period presented. In addition, at the beginning of the earliest comparative period an entity recognizes:

- A deferred tax asset (to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilised) and a deferred tax liability for all deductible and taxable temporary differences associated with:
 - Right-of-use assets and lease liabilities
 - Decommissioning, restoration and similar liabilities and the corresponding amounts recognized as part of the cost of the related asset
- The cumulative effect of initially applying the amendments as an adjustment to the opening balance of retained earnings (or other component of equity, as appropriate) at that date.

The amendment is effective for annual reporting periods beginning on or after January 1, 2023, with earlier application permitted.

2-2-8 K-IFRS 1007 *Statement of Cash Flows – Cash and Cash Equivalents*

The Group has applied an accounting policy that excludes demand deposits whose use is restricted in accordance with relevant regulations, such as reserve deposits, etc., from cash and cash equivalents. However, in accordance with the result of the IFRS Interpretations Committee's agenda decision 'Demand Deposits with Restrictions on Use arising from a Contract with a Third Party' in March 2022, the Group changed its accounting policy to classify deposits with restrictions on use, such as reserve deposits, etc., corresponding to demand deposits, as cash equivalents, although their use is restricted in accordance with relevant regulations.

This change in accounting policy has no impact on the statement of financial position and statement of profit or loss and other comprehensive income, and the statement of cash flows has been rewritten retrospectively. The major changes in the statement of cash flows for the previous year are as follows.

(Korean won in millions):

Classification	Before the change	After the change	Increase (decrease)
IV. Net increase in cash and cash equivalents (I+ II+ III)	(1,756,934)	2,485,674	4,242,608
V. Cash and cash equivalents at the beginning of the period	6,290,488	22,354,459	16,063,971
VI. Effect of changes in exchange rate on cash and cash equivalents	158,160	638,502	480,342
VII. Cash and cash equivalents at the end of the period	4,691,714	25,478,635	20,786,921

2-3 Scope and principles of consolidation

Significant methods of accounting for consolidation when preparing consolidated financial statements are as follows:

2-3-1 Subsidiaries

The Bank has the ability to determine the financial and operating policies of subsidiaries. Generally, the Bank classified the entity as subsidiary in case the Bank has existing rights that give it the current ability to direct the relevant activities, and is not only exposed, or has rights, to variable returns, but also has the ability to use its power to affect the Group's returns from its involvement with the investee. Subsidiaries are fully consolidated from the date on which the control is transferred to the Group and excluded from the subsidiaries at the point when the Group loses the control.

2-3-2 Offset of the investment accounts of the Group and the corresponding equity accounts

The investment accounts of the Group and the corresponding equity accounts of the subsidiaries are eliminated in consolidation.

2-3-3 Process of difference between the costs of investment

The consolidated financial statements reflect on only the share of the consolidated subsidiaries post application of purchase accounting method. When applying the acquisition method, if the transfer consideration, the amount of non-controlling interest in the acquiree, and the total fair value of the parent's previous holdings exceed the fair value of the subsidiary's asset liabilities, the difference is recognized as goodwill and is considered for impairment at the end of each reporting period.

Changes in the parent's ownership interest in a subsidiary that does not lose control after the date of acquisition of control are treated as capital transactions.

2-3-4 Elimination of intercompany transactions and the unrealized gain or loss, etc.

All significant intercompany transactions and the account balances among the consolidated companies are eliminated on consolidation. Unrealized gains or losses included in loans and borrowings arising from transactions between consolidated companies are eliminated on consolidation. The related accounts receivable and payable are also eliminated on consolidation.

2-3-5 Investments in associates and a joint venture

Investments in entities over which the Group has control or significant influence are accounted for using the equity method. Under the equity method of accounting, the Group's initial investment in an investee is recorded at acquisition cost. Subsequently, a share of changes in equity (the Group's share of amount of the changes in associates' net assets) is adjusted to reflect in the carrying value. The share of changes in equity is accounted differently per sources. If the change in net asset has occurred due to net income or loss, it is accounted for as gain or loss on equity method. If it has occurred due to unappropriated retained earnings carried over from prior years, it is accounted for as changes in retained earnings under equity method. The change in net assets due to changes in equity, except those mentioned above, is accounted for as equity adjustments in equity method or negative equity changes in equity method.

If the carrying amount of investments in associates is equal or under '0,' it suspends equity method and carries the investments value at '0.' If the Group has investment assets, such as preferred shares and long-term bonds of associates, it continues recognizing its share of further losses to the extent of the carrying amount of such assets value '0.' The Group resumes the application of the equity method if the Group's share of income or change in equity of an investee exceeds the Group's share of losses accumulated during the period of suspension of the equity method of accounting.

At the date of acquisition, the excess of the cost of the investment over the Group's share of the net fair value of the investee's identifiable assets and liabilities is accounted for as goodwill or negative goodwill. The goodwill is not amortized, and if there is any indication that investment shares in associates and joint ventures, including those, have been impaired, it is being considered against the recoverable value (greater of net fair value and value in use). In addition, the difference between the fair value and the carrying amount of the identifiable assets and liabilities of the investee at the time of stock acquisition is amortized or reversed according to the equity method of the investee.

The Group's share in the investee's unrealized profits and losses resulting from transactions between the Group and its investee is eliminated to the extent of the interest in the investee.

2-3-6 Special reserve on trust accounts

A special reserve provided under the arrangement of guaranteed fixed rate of return and guaranteed repayment of the principal is included under the retained earnings in the consolidated financial statements.

2-3-7 Non-controlling interests

Subsidiaries' equity that is not included in the Group's share is accounted as non-controlling interests. In case, subsidiaries' non-controlling interests are below '0', negative non-controlling interests are presented as deduction of equity.

2-4 Foreign currency transaction

2-4-1 Functional currency

When preparing for the consolidated financial statements, the Group measures and recognizes all items and transactions according to the functional currency. The term, functional currency, is defined as the monetary unit of account of the principal economic environment in which the entity operates, and trades between entities using its own functional currency and other currencies that are converted to the Group's functional currency to be measured and recognized.

2-4-2 Transactions and balances at the end of the reporting period

Transactions in foreign currencies are initially recognized as functional currency, applying spot or average exchange rates. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency spot rate of exchange at the reporting date and differences arising on settlement or translation of monetary items are recognized in profit or loss. Non-monetary assets and liabilities at fair value in a foreign currency are translated at the exchange rates at the end of the reporting date. When a gain or loss on a non-monetary item is recognized in profit or loss, any exchange differences of that gain or loss is recognized in profit or loss and when a gain or loss on a non-monetary item is recognized in other comprehensive income, any exchange differences of that gain or loss are recognized in other comprehensive income. Non-monetary items not measured at fair value in a foreign currency are translated using the exchange rates as at the dates of the initial transactions and thus there are no exchange differences.

However, an item for which settlement is neither planned nor likely to occur in the foreseeable future is, in substance, a part of the entity's net investment in that foreign operation. Exchange differences arising on a monetary item that forms a part of a reporting entity's net investment in a foreign operation are recognized initially in other comprehensive income and reclassified from equity to profit or loss on disposal of the net investment.

2-4-3 Translation of the presentation currency

As of the reporting date, the assets and liabilities of overseas branches are translated into the Group's presentation currency, Korean won (KRW).

The Group's assets and liabilities are translated at the rate of exchange prevailing at the reporting date, and the Group's consolidated statements of profit or loss and other comprehensive income and changes in equity are translated using the exchange rates at transaction date or the average exchange rates for the period. The exchange differences arising on translation are recognized in other comprehensive income.

2-5 Cash and cash equivalents

Cash and cash equivalents in the consolidated statements of financial position comprise of cash at bank and on hand, etc. The purpose of cash and cash equivalents is not to make short-term investments, but to meet short-term cash demands. Cash and cash equivalents are highly liquid, easily convertible and subject to an insignificant risk of changes in value.

Deposits restricted from use by the Group under contracts with third parties are included as part of cash, unless such restrictions prevent deposits from meeting the definition of cash any longer. Contractual restrictions affecting the use of cash and deposits are described in Note 10-2.

2-6 Financial assets-classification and subsequent measurement

At initial recognition, financial assets are classified as measured at fair value through profit or loss ("FVTPL"), fair value through other comprehensive income ("FVOCI") and amortized cost, financial liabilities are classified as measured at FVTPL and amortized cost, and in accordance with their characteristics and purposes.

Regular-way purchase or sale of financial assets is recognized at the trade date that an entity commits itself to purchase or sell an asset. Regular-way purchase or sale of financial assets means purchase or sale of financial assets under a

contract, whose terms require delivery of the asset within the time frame established generally by regulation or convention in the marketplace concerned.

Financial assets and liabilities are initially measured at fair value, and the transaction costs directly attributable to the acquisition (issuance) of financial assets (liabilities) are added to (deducted from) the fair value at initial recognition if they are not measured at FVTPL. The fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value of financial instruments is generally measured at the transaction price (the fair value of the consideration received or transferred) at initial recognition.

2-6-1 Financial assets at FVTPL

Financial assets held for trading or designated as at FVTPL and financial assets that are not classified as at FVOCI or amortized cost are classified as FVTPL.

Also, the Bank may designate a financial asset as measured at FVTPL, if doing so eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on a different base.

Financial assets at FVTPL are measured at fair value and the gain or loss on valuation is recognized as profit or loss. Dividends and interest income from the financial assets are also recognized as profit or loss.

2-6-2 Financial assets at FVOCI

The Group classifies debt securities, which are held within a business model, whose objective is achieved by both collecting contractual cash flows and selling financial assets, and meet the assessment of contractual cash flow characteristics and equity securities designated as measured at FVOCI, which are held not with intention to sell, but for strategic purpose, as financial assets at FVOCI. Financial assets at FVOCI are measured at fair value after initial recognition. Gain or loss

arising from changes in the fair value is recognized as other comprehensive income, except for interest income under the effective interest method, dividends and foreign exchange differences on monetary assets that are directly recognized in profit or loss.

When financial assets at FVOCI are disposed of, the cumulative income recognized in other comprehensive income is transferred to the current profit or loss. However, the cumulative income recognized for equity securities designated as financial assets at FVOCI is not transferred to the current profit or loss.

The fair value of financial assets at FVOCI presented in foreign currencies is translated using the exchange rate at the end of the reporting period. Changes in the fair value from exchange differences due to changes in amortized cost are recognized in the current profit or loss, while other changes are recognized directly in equity.

2-6-3 Financial assets at amortized cost

Financial assets within a business model, whose objective is achieved by collecting contractual cash flows which meet the contractual cash flow characteristics, are classified as financial assets at amortized cost. After initial recognition, the financial assets are measured at amortized cost using the effective interest rate ("EIR") method and presented by deducting from the amortized cost the allowance for loan losses. Interest income is recognized by using the effective interest rate method.

The Group defers loan origination fees ("LOF")/ loan origination costs ("LOC") associated with originating loans and LOCs that have future economic benefits. Loan balances are reported net of these LOF/LOCs. The deferred LOF/LOCs are amortized based on the effective interest rate method, with the amortization recognized as adjustments to interest income.

2-7 Derivative financial instruments and hedge accounting

Derivative instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are classified as trading derivatives or hedging derivatives depending on whether hedge accounting is applied. After initial recognition, derivative instruments are subsequently remeasured at fair value. Any gains or losses arising from changes in fair value on derivatives are taken directly to the consolidated financial statements, except for the effective portion of cash flow hedges or hedges of net investment in a foreign operation, which is recognized in other comprehensive income.

The Group applies fair value hedge accounting to hedge the changes in fair value, as a whole or some parts, of recognized assets or liabilities from particular risks or an unrecognized firm commitment. Cash flow hedge is accounted to hedge the changes in cash flows of recognized assets or liabilities from particular risks or a highly probable forecast transaction.

The Group documents the hedge relationship, risk management objective, strategy, the nature of the risk being hedged and method to assess the effectiveness of hedge to apply hedge accounting. The effectiveness of hedge means the effect of offsetting the exposure to changes in fair value or cash flow of hedged items by changes in fair value or cash flow of derivatives attributed by the hedged risk. The Group assesses and documents whether such hedges are expected to be highly effective and if they actually have been highly effective at the end of the reporting period.

An ineffective part of the hedge may be due to differences between underlying variables, such as acquisition date, credit risk, or liquidity, and the hedging instruments that the entity accepts to achieve an effective cost-to-cost hedging relationship.

2-7-1 Fair value hedges

When fair value hedge accounting is applied, the unrealized gain or loss on hedged items that are attributable to a hedged risk and hedging instruments is symmetrically recognized in the consolidated financial statements as current income or other comprehensive income for the same reporting period to ensure that changes in the fair value of the hedged items are offset by changes in the fair value of the hedging instruments. If an application of hedge accounting is no longer valid, the Group discontinues the hedge accounting prospectively. Any adjustment to the carrying amount of hedged items is amortized to profit or loss in the consolidated statements of comprehensive income over the remaining maturity using the effective interest method.

2-7-2 Cash flow hedges

When cash flow hedge accounting is applied, the effective portion of the unrealized gain or loss on the hedging instrument is directly recognized in other comprehensive income (loss) in the consolidated statements of financial position to ensure that changes in the cash flows of the hedged items are offset by change in the cash flows of the hedging instruments, while any ineffective portion is recognized immediately in the consolidated statements of comprehensive income. Amounts recognized as other comprehensive income are transferred to the statement of comprehensive income when the hedged transaction affects profit or loss. If an application of hedge accounting no longer meets the criteria, the Group discontinues the hedge accounting prospectively and the cumulative gain or loss on the hedging instrument previously recognized in other comprehensive income is transferred to profit or loss in the consolidated statements of profit or loss and other comprehensive income.

2-7-3 Hedge accounting of net investment in a foreign operation

When applying hedge accounting of net investment in a foreign operation, the effective portion of changes in fair value of the hedging instrument is recognized in other comprehensive income and the ineffective portion of the hedge is recognized as current profit or loss in order to offset changes in the fair value of

the hedged item caused by the hedging with changes in the fair value of the hedging instrument. The effective portion of hedge recognized in other comprehensive income will be reclassified from other comprehensive income to current profit or loss in accordance with K-IFRS 1021 *The Effects of Changes in Foreign Exchange Rates* at the time of disposal of a foreign operation or disposal of a portion of its foreign operations in the future.

2-7-4 Embedded derivatives

An embedded derivative is a component of a hybrid contract that also includes a non-derivative host, with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative. Derivatives embedded in other financial instruments or other host contracts are accounted for as separate derivatives when their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

2-7-5 'Day 1' profit or loss

In case of derivatives in Level 3, fair value is determined using data that is not observable from markets. The difference between the transaction price and fair value at initial recognition (a 'Day 1' profit or loss) is deferred and amortized up to its maturity by using the straight-line method.

2-7-6 Credit risk valuation adjustment

When assessing derivatives at fair value, expected loss from credit risk is measured and deducted from derivative assets to reflect credit risk of counterparties.

2-8 Expected credit loss (ECL) for financial assets

Loss allowance is recognized for financial assets at FVOCI and amortized cost using the ECL model.

ECL is the weighted-average amount of possible outcomes within a certain range, reflecting the time value of money, estimates on the past, current and future situations and information accessible without excessive cost or effort.

The ECL can be measured in three following ways:

- General approach: When financial assets do not fall into below two categories and are off-balance-sheet undrawn commitments
- Simplified approach: When financial assets are trade receivables, contract assets or lease receivables
- Credit-impaired approach: When financial assets are credit-impaired at initial recognition

The general approach is applied differently depending on the significance of the increase of the credit risk. If, at the reporting date, the credit risk on a financial instrument has not increased significantly since initial recognition, the Bank shall measure the loss allowance for that financial instrument at an amount equal to 12-month ECL. If the credit risk on that financial instrument has increased significantly since initial recognition, the Bank shall measure the loss allowance for a financial instrument at an amount equal to the lifetime ECL at each reporting date.

The loss allowance is measured at an amount equal to lifetime ECL for the simplified approach, and the Bank shall only recognize the cumulative changes in lifetime ECL since initial recognition as a loss allowance for purchased or originated credit-impaired financial assets at each reporting date for the credit-impaired approach.

The following non-exhaustive list of information may be relevant in assessing changes in credit risk:

- Significant changes in internal price indicators of credit risk as a result of a change in credit risk since inception
- Other changes in the rates or terms of an existing financial instrument that would be significantly different
- An actual or expected significant change in the financial instrument's external credit rating
- An actual or expected internal credit rating downgrade for the borrower or decrease in behavioral scoring used to assess credit risk internally
- An actual or expected significant change in the operating results of the borrower
- Past-due information, etc.

2-8-1 Reflecting forward-looking information

The Group measures the significance of the increase of the credit risk and the ECL using forward-looking information.

The Group assumes that the risk component is correlated with changes in market conditions and calculates the ECL using the forward-looking information by modeling macroeconomic variables and risk components.

The forward-looking information used to measure the ECL is derived from 'stress-case' or 'worst-case' scenarios.

2-8-2 Measurement of ECL for financial assets at amortized cost

ECL for financial assets at amortized cost is measured as the present value of the difference between the contractual cash flows that are due to the Bank under the contract and the cash flows that the Bank expects to receive. For this purpose, the Group calculates expected contractual cash flows for individually significant financial assets (allowance for loan losses on an individual assessment)

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Financial assets insignificant in value individually are measured on a collective basis with financial assets with similar credit risks (allowance for loan losses on a collective assessment).

2-8-2-1 Allowance for loan losses on an individual assessment basis

Allowance for loan losses on an individual assessment basis is based on the best estimates of management in regard to the present value of cash flows expected to be recovered from receivables. In estimating the cash flows, the Group uses all available information, including the financial conditions, such as the operating cash flows of counterparties and the net realizable value of collateral provided.

2-8-2-2 Allowance for loan losses on a collective assessment basis

Allowance for loan losses on a collective assessment basis uses the estimation model that accounts for the forward-looking information based on the past loss rate to measure the ECL. The model considers the probability of default ("PD") and the loss given default ("LGD") reflecting the type of instruments and borrowers, credit rating, portfolio size and collection period. Also, certain assumptions are applied to model the expected credit loss measurement and to determine input variables based on past experiences and forward-looking information. Methodologies and assumptions for this model are regularly reviewed to minimize the difference between the allowance for loan losses and the actual loss.

The ECL for financial assets at amortized cost is recognized as the allowance for

loan losses, and when the financial asset is determined to be irrecoverable, the carrying amount and allowance for loan losses are decreased. If financial assets previously written off are recovered, the allowance for loan losses is increased, and the difference is recognized in the current profit or loss.

2-8-3 ECL measurement for financial assets at FVOCI

The measurement method is the same as the one for financial assets at amortized cost, but the change in the allowance is recognized as other comprehensive income. The allowance for financial assets at FVOCI is reclassified from other comprehensive income to current profit or loss when the assets are disposed of or repaid.

2-9 Derecognition of financial assets

A financial asset is derecognized when the contractual rights to the cash flows from the financial asset expire, or the Group transfers substantially all the risks and rewards of ownership of the financial asset. If the Group neither transfers nor retains substantially all the risks and rewards of ownership of the financial asset, but has retained control, the Group recognizes the asset and the associated liability to the extent of the Group's continuing involvement in the financial asset. If most of the risks and rewards of owning a financial asset are controlled without holding or transferring it, the Group recognizes them in its consolidated statement of financial position as the Group continues to be involved in the financial asset and related liabilities to be paid.

2-10 Classification and measurement of financial liabilities

All financial liabilities are classified as financial liabilities at FVTPL, borrowings or others are measured initially at their fair value, minus transaction costs, except in the case of financial liabilities recorded at FVTPL.

2-10-1 Financial liabilities at FVTPL

Financial liabilities at FVTPL include financial liabilities held for trading and financial liabilities designated upon initial recognition as at FVTPL. Financial liabilities

are classified as held for trading if they are acquired for the purpose of selling in the near term. All derivatives, including an embedded derivative separated from the host contract, are reclassified as financial liabilities at FVTPL, except for financial liabilities designated as effective hedging instruments or financial guarantee contracts. After initial recognition, the changes in the fair value of the financial liabilities at FVTPL and the related interest expenses are recognized as profit or loss.

The Group performs securities lending and borrowing classified as held for trading financial liabilities. When the Group borrows securities from Korea Securities Depository, securities borrowed are managed as memorandum value and, when selling them, they are recorded as securities sold. At closing, the difference in the price securities are sold and the market price prevailing on the closing date is taken into account as valuation gain or loss on securities sold, and at the time of selling the securities, the difference in book value and the price securities are purchased is recorded as trading gain or loss on securities sold.

2-10-2 Deposits, borrowings and debentures

Interest-bearing deposits, borrowings and debentures are subsequently measured at amortized cost using the effective interest method. The difference between the consideration received after deducting transaction costs and the amount repayable on maturity is amortized by the effective interest method and recognized in profit or loss for the relevant period.

2-11 Derecognition of financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged, canceled or expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the consolidated statements of profit or loss and other comprehensive income.

2-12 Offsetting of financial assets and liabilities

Financial assets and financial liabilities are offset, and the net amount reported in the consolidated statements of financial position if, and only if, there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, or to realize the asset and settle the liability simultaneously.

2-13 Provisions

Provisions are recognized when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. If the obligation is expected, it is unlikely or the amount of the loss cannot be estimated reliably, the amount is disclosed. If the effect of the time value of money is material, provisions are stated at present value.

The Group accounts for the payment guarantee provision in the same way in accounting allowance for loan losses on a collective assessment basis, by applying the Cash Conversion Factor, to the confirmed/unconfirmed payment guarantees and bills endorsed. The Group provides an allowance for loan losses on a certain portion of unused credit line. The Group records the provision for such unused balances as an allowance for loan losses on unused commitments, which are calculated by applying a Credit Conversion Factor ("CCF") and provision rates.

2-14 Financial guarantee contract

A financial guarantee contract is a contract that requires the issuer to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payment when due in accordance with the original or modified terms of a debt instrument and is measured at fair value on the date of initial recognition. After initial recognition, the Group, as an issuer of such a contract, measures it at the higher of (i) the amount determined in accordance with K-IFRS1109 *Financial Instruments* or (ii) the amount initially recognized

less, when appropriate, cumulative amortization recognized in accordance with K-IFRS 1115 *Revenue from Contract with Customer*.

2-15 Bonds purchased under resale agreements and bonds sold under repurchase agreements

Bonds purchased under resale agreements and bonds sold under repurchase agreements are included in loans and borrowings, respectively, in the accompanying consolidated statements of financial position. Interest income and expenses from purchase or sale are recognized as interest income on loans and interest expenses on borrowings.

2-16 Property, plant and equipment

Property, plant and equipment are measured at cost, and the carrying amount after initial recognition is expressed as the amount of the acquisition cost minus the accumulated depreciation and the accumulated impairment loss. The cost of property, plant and equipment is an expenditure directly related to the purchase or construction of the asset, including the cost directly related to the location and condition required to operate the asset in the manner intended by management, and the cost initially estimated to be required to dismantle, remove, or restore the site.

The subsequent costs are recognized as an asset when it is probable that future economic benefits associated with the asset will flow to the Group and the costs of the asset can be measured reliably. The other maintenances and repairs are expensed in the year in which they are incurred, and the carrying amount of certain parts that are replaced is derecognized.

Land is not depreciated. For depreciation of other assets, amount of acquisition cost, less residual value is calculated on a straight-line basis and declining-balance basis over the following estimated useful life of the asset:

Classification	Depreciation method	Years
Buildings, building components and structures	Straight-line method	5 to 55
Leasehold improvements	Straight-line method	3 to 10
Equipment and vehicles	Declining-balance method	3 to 20

If the recoverable amount of an asset is estimated to be less than its carrying amount, the carrying amount of the asset is immediately reduced to its recoverable amount.

The residual value and economic useful life are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for, if necessary. Any gain or loss arising on derecognition of the asset is recognized in 'Non-operating income' or 'Non-operating expenses' in the consolidated statements of comprehensive income in the year the asset is derecognized.

2-17 Investment properties

Investment properties are measured initially at cost, including transaction costs. Subsequent to initial recognition, investment properties are stated using the cost model.

Investment properties are derecognized when either they have been disposed of or the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in the consolidated statements of profit or loss and other comprehensive income in the period of derecognition, and transfers are made to or from investment property only when there is a change in use. Land is not depreciated among investment properties, and the depreciation method of the building is a straight-line method, and the useful life is five to 55 years. The depreciation method, residual value, and useful life of investment property are reviewed at the end of each reporting period, and if it is deemed appropriate to change it, it is accounted for as a change in accounting estimates.

2-18 Intangible assets

An intangible asset, which comprises industrial property right, software, development costs and others, is recognized as an asset only if it is probable that future economic benefits associated with the asset will flow to the Group and the costs of the asset can be measured reliably. Intangible assets acquired individually are measured on initial recognition at cost. The cost of intangible assets acquired in a business combination is its fair value as of the date of acquisition in accordance with KIFRS 1103 *Business Combination*. Amortization of intangible assets with definite useful lives is calculated on the following amortization method over the estimated useful life of the assets:

Classification	Depreciation method	Years
Industrial property right, software and system development costs	Straight-line method	5
Core deposits	Straight-line method	14
Other intangible assets	Straight-line method	1 to 12

Intangible assets with indefinite useful lives are not amortized, but are annually tested for impairment or whenever there is an indication that the intangible asset may be impaired. The assessment of indefinite life is reviewed annually to determine whether the indefinite life continues to be supportable.

2-19 Impairment of non-financial assets

The Group tests the depreciable asset for impairment whenever there is a change of environment or an event that the carrying amount may not be recoverable. The Group recognizes an excess of the carrying amount over the recoverable amount as an impairment loss. The Group defines recoverable amount as the higher of an asset's or cash-generating unit ("CGU")'s fair value, less costs to sell, or its value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels (CGUs) for which there are separate and identifiable cash flows. The Group assesses reversal of an impairment loss recognized for the non-financial assets other than goodwill at the end of the reporting period.

2-20 Net defined benefit liabilities (assets)

The Group calculates defined benefit liabilities and pension benefit expenses based on defined benefit plan and defined contribution plan when an employee retires in accordance to pension-related regulations. For defined benefit plans, the cost of retirement benefits is measured by an actuary services company, using the projected unit credit method. The present value of defined benefit obligation is computed by discounting expected future cash outflows with market rate of return measured against the yield of high-graded corporate bond, whose date of payment and maturity is similar to that of a defined benefit obligation. Actuarial gains and losses, incurred from the change in actuarial assumptions and the difference between the assumptions and the actual results, are recognized in other comprehensive income for the period. Past service cost is recognized immediately to the extent that the benefits are already vested and otherwise is amortized on a straight-line basis over the period until the benefits become vested.

The Group has entered into retirement trust fund and retirement pension plan agreements to pay retirement benefits to its employees. The retirement benefit obligation represents the present value of the defined benefit obligation as adjusted for unrecognized past service cost and as reduced by the fair value of plan assets. Any asset resulting from this calculation is limited to unrecognized actuarial losses and past service cost, plus the present value of available refunds and reductions in future contributions to the plan.

2-21 Share-based payment

In the case of equity-settled share-based payment, the goods or services received and the corresponding increase in equity are measured directly at the fair value of the goods or services and accounted for as compensation costs and equity. If the goods or services provided cannot be reliably measured, the endowed equity is indirectly estimated at fair value and the Group accounts for compensation costs and equity (capital adjustment). The cost of cash-settled transactions is measured initially at fair value at the grant date, taking into

account the terms and conditions upon which the instruments were granted. This fair value is expensed over the period until vesting with recognition of a corresponding liability. The liability is remeasured to fair value at each reporting date up to, and including the settlement date, with changes in fair value recognized in the consolidated statements of comprehensive income. Also, in the case of a selectable share-based payment transaction in which the employees have a choice between a cash-settled transaction and an equity-settled transaction, the Group records the amount depending on its substance.

2-22 Employee benefits

2-22-1 Short-term employee benefits

When employees have rendered services to the Group during an accounting period, the Group recognizes the undiscounted amount of short-term employee benefits. This amount is expected to be settled in whole before 12 months after the end of the reporting period, in exchange for those services.

2-22-2 Termination benefits

The Group recognizes an expense for termination benefits when an employee accepts the offer or when a restriction on the Group's ability to withdraw the offer takes effect.

2-23 Recognition of income tax expenses and deferred tax assets and liabilities

Income taxes are composed of current and deferred taxes. All items related to taxes, other than those recognized directly in equity, are accounted for in the consolidated statements of comprehensive income. Accordingly, items recognized directly in equity and the related taxes are accounted for as other comprehensive income in the consolidated statements of comprehensive income.

The tax rates and tax laws used to compute the amount are those that are enacted, or substantively enacted, by the reporting date, in the countries where the Group operates and generates taxable income. If the applied tax laws require

an interpretation, the Group calculates income tax payable expected to be paid to the taxation authorities based on the opinion made when the taxes were reported.

Deferred tax is provided on the temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

When the initial recognition of an asset or a liability in a transaction is not a business combination and, at the time of the transaction, affects neither accounting profit nor taxable profit, the Group does not recognize a deferred tax asset or liability. The Group measures deferred tax assets and liabilities at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted, or substantively enacted, by the end of the reporting period.

The Group recognizes a deferred tax asset for all deductible temporary differences to the extent that it is probable that taxable profit will be available against which the deductible temporary differences can be utilized.

The Group recognizes a deferred tax liability for all taxable temporary differences with investments in subsidiaries and associates, except to the extent that both of the following conditions are satisfied: (a) the Bank is able to control the timing of the reversal of the temporary difference and (b) it is probable that the temporary difference will not reverse in the foreseeable future.

The Group offsets deferred tax assets and liabilities if, and only if, the Group has a legally enforceable right to set off current tax assets against current tax liabilities, and the deferred tax assets and the deferred tax liabilities relate to income taxes levied by the same taxation authority on either on the same taxable entity or different taxable entities, which intend either to settle current tax liabilities and assets on a net basis, or to realize the assets and settle the liabilities simultaneously, in each future period in which significant amounts of deferred

tax liabilities or assets are expected to be settled or recovered.

2-24 Equity

2-24-1 Classification of equity

The Group classifies financial instruments at initial recognition as either financial liabilities or financial equity depending on the contractual materiality. In the case where it is possible to avoid the related contractual obligations, the financial item is classified as a financial equity. An equity is any contract that evidences a residual interest in the assets of the Group after deducting all of its liabilities.

2-24-2 Stock issuance costs

New stock issuance costs or incremental costs related to the stock issuance for business combinations are recorded as a deduction from paid-in capital, net of tax effects.

2-25 Earnings per share

Basic and diluted earnings per share ("EPS") are computed by dividing net income by the weighted-average number of shares of common stock outstanding during the year.

2-26 Accounting basis for trust accounts

The Group accounts for trust operations (the "trust accounts") separately from the Group's accounts in accordance with the *Financial Investment Services and Capital Markets Act*. In this regard, the funds lent by the Group to the trust account are accounted as due to trust accounts of the Group's accounts, and the funds borrowed by the Group from the trust account are accounted as due from trust accounts of the Group's accounts. Trust compensation paid to the trustee (the Group) in connection with the operation, management and disposal of trust property is accounted as trust operation profits. The Group recognizes trust commissions earned from trust accounts as income from trust operations in connection with the operation, management and disposal of trust property. In

addition, in the case of a joint operation money trust with a "guarantee contract of the principal or profits" of the trust account, if the operating profit falls short of the "principals to be preserved or profits to be guaranteed" and this shortage is more than covered by the trust compensation and special reserves, the Group accounts the amount paid to the trust account as trust accounts operating losses.

2-27 Lease accounting

Under KIFRS 1116 *Leases*, the Group applies a single recognition and measurement method for all leases, except for leases of low-value assets. This standard provides guidance on specific requirements and simplified methods applied by an entity.

The Group recognized the right-of-use assets and the lease liabilities that were previously classified as operating leases, except for leases of low-value assets. Right-of-use assets for most leases were recognized as carrying amounts measured as if they had been applying the standards from the inception of the lease, except that they were discounted at the lessee's incremental borrowing rate as of the date of initial application. In some leases, the right-of-use asset was recognized based on the amount equal to the lease liabilities, adjusted for any related prepaid and accrued lease payments previously recognized. The lease liability was measured at the present value of the remaining lease payments, discounted at the incremental borrowing rate as of the date of initial application.

The practical expedients that the Group applied are as follows:

- Application of a single discount rate to a portfolio of leases with significantly similar characteristics
- Replacement of impairment review by determining whether leases are onerous before the initial application date
- Exclusion of initial direct costs from the measurement of the right-of-use asset at the initial application date
- Using hindsight for lessee

2-28 Merchant banking account

As permitted by the Restructuring of Financial Institutions Act, the Group may continue its merchant banking operations, including leasing business, until the existing contracts acquired from the Korea International Merchant Bank upon merger are terminated.

Significant accounting policies applied to the Bank's merchant banking operations are summarized as follows:

2-28-1 Revenue recognition on discounted notes

Interest income on discounted notes is accrued over the term of the notes. Income from the sale of discounted notes is recognized at the date of transaction based on the difference between the purchase prices and sales prices of the notes, adjusted for interest earned during the holding period.

2-28-2 Cash Management Accounts (CMA)

The Group recognizes interest income from CMA investments and interest expenses from CMA deposits as operating income and operating expenses, respectively.

2-29 Interest income and interest expenses

Interest income and interest expenses are recognized over time using the effective interest method.

The effective interest method is a method of calculating the amortized cost of a financial asset or a financial liability and allocating the interest income or interest expenses over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or financial liability. When calculating the effective interest rate, the Group estimates cash flows considering all contractual terms of the financial instrument, but does not consider future

credit losses. Cash flows at the time of the calculation include all the fees and points paid to, or received from, parties to the contract that are an integral part of the effective interest rate, including transaction costs, and all other premiums or discounts.

If income recognition on an accrual basis is deemed inappropriate due to low possibility of realizing interest income, the interest income is recognized when interest is actually received.

2-30 Fees and commission income

The Group's revenue recognition standard varies depending on the type of service provided to customers. Fee income, which is an integral part of the effective interest rate ("EIR") of financial instruments, is adjusted using the EIR and recognized as interest income.

Fee income is recognized using the five-stage revenue recognition model (Identification of a contract with a customer → Identification of performance obligations in the contract → Determination of the transaction price → Allocation of the transaction price to the separate performance obligations in the contract → Recognition of revenue upon satisfying the performance obligations) in accordance with K-IFRS 1115.

2-31 Dividend income

Dividend income is recognized when the Group's right to receive the payment is established.

2-32 Government grants

Government grants are recognized at fair value when there is a reasonable assurance that the entity will comply with the conditions attaching to it and that the grant will be received. Grants related to income are recognized as revenue on a systematic basis over the period necessary to match the related costs that the grant is intended to cover. On the other hand, grants related to an asset are presented by subtracting the carrying amount of the asset and accounting for by deducting depreciation expenses over the useful life of the asset.

3. Significant judgments and accounting estimates

In the application of the Group's accounting policies, management is required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily observable from objective sources. The estimation and assumption are based on other factors that are related to historical experience. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future period if the revision affects both current period and future period.

In the process of applying the Group's accounting policies, management has made the following judgments that have a significant effect on the amounts recognized in the consolidated financial statements.

3-1 Fair value of financial instruments

The fair value of financial instruments is determined by referencing quoted market prices in active markets in the first place. For financial instruments not traded in an active market, the fair value is determined using appropriate valuation techniques, including (i) between knowledgeable and willing parties in a recent arm's-length transaction, (ii) reference to the current fair value of another instrument that is substantially the same, (iii) discounted cash flow ("DCF") analysis and (iv) option-pricing models.

3-2 Expected credit loss of financial assets

The Group recognizes impairment losses on debt instruments, lease receivables, loan commitment and financial guarantee contracts that were accounted for at amortized cost, or FVOCI, based on the ECL impairment model using a three-stage model for 12-month ECL, or lifetime ECL, based on changes in credit risk since initial recognition of financial assets.

Classification		Loss allowance
STAGE 1	Credit risk on a financial instrument has not increased significantly since initial recognition.	12-month ECL: Expected credit losses that result from default events on a financial instrument that are possible within the 12 months after the reporting date.
STAGE 2	Credit risk on a financial instrument has increased significantly since initial recognition.	Lifetime ECL: Expected credit losses that result from all possible default events over the expected life of a financial instrument.
STAGE 3	Credit-impaired.	

The cumulative changes in lifetime ECL since initial recognition are recognized as loss allowance for a financial asset that is considered credit impaired at initial recognition.

3-3 Retirement benefit

The cost of providing benefits under the defined benefit plans is determined using the actuarial valuation. Actuarial assumptions were made for the discount rate and an increase in the future pay rate. Retirement benefits include significant uncertainties in the estimates due to the longer duration of the period.

3-4 Impairment of non-financial assets

The Group assesses at the end of each reporting period, whether there is an indication that non-financial assets may be impaired. An intangible asset with an indefinite useful life is tested for impairment annually or tested whenever there is an indication that the intangible asset may be impaired. Other non-financial assets are tested for impairment whenever there is an indication that the book value cannot be recovered. For the calculation of value in use, management estimates an expected future cash flow incurred from the asset or CGU. For the calculation of present value of the expected future cash flow, appropriate discount rate is selected.

3-5 Income tax

There have been various transactions and tax accounting methods, which have made computing the final tax expenses for the period uncertain. The contingent liability from any future tax assessments is based on the estimates of the likelihood of additional taxes imposed and has been included in the Group's consolidated financial statements for the current period. When the finalized tax expenses assessments are different from the appropriated amounts, the differences, if any, are recognized in current deferred tax assets, liabilities and expenses for the period.

4. Fair value measurement of financial assets and liabilities

The standards the Group applies when measuring fair values of financial assets and liabilities are described below:

- a. Quoted market prices as of the settlement date in an active market are the best evidence of fair value and should be used when available.
- b. If a market for a financial instrument is not active, the Group establishes fair value by using a valuation technique that makes maximum use of market inputs and includes (i) recent arm's length market transactions, (ii) reference to the current fair value of another instrument that is substantially the same, (iii) discounted cash flow analysis, and (iv) option-pricing models. An acceptable valuation technique incorporates all factors that market participants would consider in setting a price and is consistent with accepted economic methodologies for pricing financial instruments.
- c. When determining fair value using the valuation techniques, comparison with the current market transaction of another instrument that is substantially the same as the financial instrument needed to be objectively substantiated or inclusion of variables in the marketable data must be performed. Not all of the significant market variables are observable and in relevant cases, the reasonable estimates or assumptions are required to determine the fair value.

4-1 Fair value hierarchy of financial instruments

Fair value hierarchy of financial instruments as of December 31, 2022, and 2021, is as follows (Korean won in millions):

<December 31, 2022>

Classification	Levels of the fair value hierarchy (*1)			Total
	Quoted market price (Level 1)	Observable input (Level 2)	Unobservable input (Level 3)	
Financial assets				
Financial assets at FVTPL				
Equity securities	17,943	–	24,945	42,888
Debt securities	2,148,533	5,459,986	944,860	8,553,379
Derivative assets held for trading	213	9,814,434	37,107	9,851,754
Convertible privately placed bonds	–	–	7,394	7,394
Subtotal	2,166,689	15,274,420	1,014,306	18,455,415
Financial assets at FVOCI				
Equity securities	252,039	34	558,432	810,505
Debt securities	10,351,695	21,798,381	–	32,150,076
Subtotal	10,603,734	21,798,415	558,432	32,960,581
Derivative assets used for hedging	–	8,062	–	8,062
Merchant banking account assets	–	4,631,361	–	4,631,361
Total	12,770,423	41,712,258	1,572,738	56,055,419
Financial liabilities				
Financial liabilities at FVTPL				
Derivative liabilities held for trading	1,177	10,681,705	59,695	10,742,577
Securities borrowed	323,661	–	–	323,661
Financial liabilities designated as at FVTPL	–	162,069	–	162,069
Subtotal	324,838	10,843,774	59,695	11,228,307
Derivative liabilities used for hedging	–	485,580	30,838	516,418
Total	324,838	11,329,354	90,533	11,744,725

(*1) The Group recognizes transfers between levels at the beginning of reporting period when events or changes in circumstances causing the transfers between levels have occurred.

<December 31, 2021>

Classification	Levels of the fair value hierarchy (*1)			Total
	Level 1	Level 2	Level 3	
Financial assets				
Financial assets at FVTPL				
Equity securities	81,433	–	14,900	96,333
Debt securities	1,037,868	4,900,268	611,871	6,550,007
Derivative assets held for trading	15	4,090,684	10,650	4,101,349
Convertible privately placed bonds	–	–	170,873	170,873
Subtotal	1,119,316	8,990,952	808,294	10,918,562
Financial assets at FVOCI				
Equity securities	326,532	50	584,998	911,580
Debt securities	12,718,463	21,604,315	–	34,322,778
Subtotal	13,044,995	21,604,365	584,998	35,234,358
Derivative assets used for hedging	–	68,670	–	68,670
Merchant banking account assets	–	4,741,939	–	4,741,939
Total	14,164,311	35,405,926	1,393,292	50,963,529
Financial liabilities				
Financial liabilities at FVTPL				
Derivative liabilities held for trading	–	3,838,118	11,345	3,849,463
Securities borrowed	143,044	–	–	143,044
Financial liabilities designated as at FVTPL	–	195,600	–	195,600
Subtotal	143,044	4,033,718	11,345	4,188,107
Derivative liabilities used for hedging	–	102,068	9,124	111,192
Total	143,044	4,135,786	20,469	4,299,299

(*1) The Group recognizes transfers between levels at the beginning of each reporting period when events or changes in circumstances causing the transfers between levels have occurred.

The Group uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation techniques:

- Level 1: The fair values are based on quoted (unadjusted) prices in active markets.
- Level 2: The fair values are based on techniques using observable inputs in active markets.
- Level 3: The fair values are based on techniques using unobservable inputs.

Details of fair value, valuation techniques, and inputs used to develop those measurements classified into Level 2 assets and liabilities that are measured at fair value as of December 31, 2022 and 2021 are as follows
(Korean won in millions):

<December 31, 2022>

Classification	Fair value	Description of the valuation technique	Inputs used in the fair value measurement
Financial assets			
Financial assets at FVTPL			
Debt securities	5,459,986	Net asset value model, DCF model	Underlying asset prices such as bond, stock, etc., Discount rate
Derivative assets held for trading	9,814,434	Black-Scholes model, Black model, DCF model and Hull-White 1 factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility, Yield curve of each currency
Subtotal	15,274,420		
Financial assets at FVOCI			
Equity securities	34	Market value	Stock price
Debt securities	21,798,381	DCF model	Discount rate
Subtotal	21,798,415		
Derivative assets used for hedging	8,062	Hull-White 1 factor model	Exchange rate, Swap yield curve, Swaption volatility, Yield curve of each currency
Merchant banking account assets	4,631,361	DCF model	Discount rate
Total	41,712,258		
Financial liabilities			
Financial liabilities at FVTPL			
Derivative liabilities held for trading	10,681,705	Black-Scholes model, Black model, DCF model and Hull-White 1 factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility, Yield curve of each currency
Financial liabilities designated as at FVTPL	162,069	Hull-White 1 factor model	Swap yield curve, Swaption volatility
Subtotal	10,843,774		
Derivative liabilities used for hedging	485,580	Hull-White 1 factor model	Exchange rate, Swap yield curve, Swaption volatility, Yield curve of each currency
Total	11,329,354		

<December 31, 2021>

Classification	Fair value	Description of the valuation technique	Inputs used in the fair value measurement
Financial assets			
Financial assets at FVTPL			
Debt securities	4,900,268	Net asset value model, DCF model	Underlying asset prices such as bond, stock, etc., Discount rate
Derivative assets held for trading	4,090,684	Black-Scholes model, Black model,	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility,

Classification	Fair value	Description of the valuation technique	Inputs used in the fair value measurement
		DCF model and Hull-White 1 factor model	Yield curve of each currency
Subtotal	8,990,952		
Financial assets at FVOCI			
Equity securities	50	Market value	Stock price
Debt securities	21,604,315	DCF model	Discount rate
Subtotal	21,604,365		
Derivative assets used for hedging	68,670	Hull-White 1 factor model	Exchange rate, Swap yield curve, Swaption volatility, Yield curve of each currency
Merchant banking account assets	4,741,939	DCF model	Discount rate
Total	35,405,926		
Financial liabilities			
Financial liabilities at FVTPL			
Derivative liabilities held for trading	3,838,118	Black-Scholes model, Black model, DCF model and Hull-White 1 factor model	Exchange rate, Stock Index, Volatility, Swap yield curve, Swaption volatility, Yield curve of each currency
Financial liabilities designated as at FVTPL	195,600	Hull-White 1 factor model	Swap yield curve, Swaption volatility
Subtotal	4,033,718		
Derivative liabilities used for hedging	102,068	Hull-White 1 factor model	Exchange rate, Swap yield curve, Swaption volatility, Yield curve of each currency
Total	4,135,786		

Details of fair value, valuation techniques, inputs to valuation, and significant unobservable inputs used to develop those measurements classified into Level 3 assets and liabilities that are measured at fair value as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Fair value	Description of the valuation technique	Inputs used in the fair value measurement	Significant unobservable inputs used in the fair value measurement	Range (%)	The effect of changes in unobservable inputs on fair value
Financial assets						
Financial assets at FVTPL						
Equity securities	24,945	Dividend discount model, Discounted cash flow model	Growth rate, Discount rate and Liquidating value,	Growth rate	0.00	Positive
				Discount rate	5.19~11.95	Negative
				Liquidating value	0.00	Positive
Debt securities	944,860	Dividend discount model, Binomial model, Net asset value model	Discount rate, Liquidating value, Underlying asset price and Volatility of underlying assets	Discount rate	5.68~6.88	Negative
				Liquidating value	0.00	Positive
				Volatility of underlying	23.56~35.06	Positive

Classification	Fair value	Description of the valuation technique	Inputs used in the fair value measurement	Significant unobservable inputs used in the fair value measurement	Range (%)	The effect of changes in unobservable inputs on fair value
				assets		
Derivative assets held for trading	37,107	Binomial model, Hull-White 2 factor model	Stock index, Swap yield curve, Volatility of underlying assets, Correlation within evaluation model, Exchange rate, etc	Correlation between IRS rates, Correlation between Exchange rate and Stock index, Correlation between Stock index and Stock index	-25.30~74.90	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Volatility of underlying assets	21.83~31.73	Positive
Convertible privately placed bonds	7,394	Acquisition cost	—	—	—	—
Subtotal	1,014,306					
Financial assets at FVOCI						
Equity securities	558,432	Binomial model, FCFE model, Discounted cash flow model, Comparable Company Analysis, Net asset method	Growth rate, Discount rate, Liquidating value, Underlying asset price and Volatility of underlying assets,	Growth rate	0.00	Positive
				Discount rate	9.08~19.14	Negative
				Liquidating value	0.00	Positive
				Volatility of underlying assets	21.98~46.53	Positive
Total	1,572,738					
Financial liabilities						
Financial liabilities at FVTPL						
Derivative liabilities held for trading	59,695	Binomial model, Hull-White 2 factor model	Stock index, Swap yield curve, Volatility of underlying assets, Correlation within evaluation model, Exchange rate, etc	Correlation between IRS rates, Correlation between Exchange rate and Stock index, Correlation between Stock index and Stock index	-5.90~73.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
				Volatility of underlying assets	21.83~46.53	Positive
Derivative liabilities used for hedging	30,838	Hull-White 2 factor model	Swap yield curve, Swaption volatility, Correlation within evaluation model and Exchange rate	Correlation between KRW IRS rates, Correlation between USD IRS rates	39.00~96.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
Total	90,533					

<December 31, 2021>

Classification	Fair value	Description of the valuation technique	Inputs used in the fair value measurement	Significant unobservable inputs used in the fair value measurement	Range (%)	The effect of changes in unobservable inputs on fair value
Financial assets						
Financial assets at FVTPL						
Equity securities	14,900	Income approach, Multiple	Growth rate, Discount rate and Liquidating value,	Growth rate	1.00	Positive
				Discount rate	13.88~25.46	Negative
				Liquidating value	0.00	Positive
Debt securities	611,871	Income approach, Net asset value model	Discount rate, Liquidating value	Discount rate	5.13~21.37	Negative
				Liquidating value	0.00	Positive
Derivative assets held for trading	10,650	Hull-White 2 factor model	Swap yield curve, Swaption volatility, Correlation within evaluation model and Exchange rate	Correlation between USD IRS rates	53.00~79.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
Convertible privately placed bonds	170,873	LSMC	Underlying asset price, Volatility of underlying assets, and Discount rate	Volatility of underlying assets	17.89~34.16	Positive
Subtotal	808,294					
Financial assets at FVOCI						
Equity securities	584,998	LSMC, Income approach, Net asset value model, multiple, Binomial model	Growth rate, Discount rate, Underlying asset price and Volatility of underlying assets	Growth rate	1.00	Positive
				Discount rate	10.42~18.02	Negative
				Volatility of underlying assets	23.32~25.49	Positive
Total	1,393,292					
Financial liabilities						
Financial liabilities at FVTPL						
Derivative liabilities held for trading	11,345	Hull-White 2 factor model	Swap yield curve, Swaption volatility, Correlation within evaluation model, and Exchange rate	Correlation between USD IRS rates	53.00~79.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
Derivative liabilities used for hedging	9,124	Hull-White 2 factor model	Swap yield curve, Swaption volatility, Correlation within evaluation model, and Exchange rate	Correlation between KRW IRS rates, Correlation between USD IRS rates	53.00~98.00	Fair value increase or decrease based on the changes in correlation by the effect of trading instruments and market status
Total	20,469					

4-2 Changes in the fair value of financial assets and liabilities categorized as Level 3

Changes in the fair value of financial instruments categorized as Level 3 of the fair value hierarchy of financial instruments that are measured at fair value in the consolidated statements of financial position for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

<2022>

Classification		Financial assets at FVTPL			Financial assets at FVOCI	Net derivative instruments	
		Equity securities	Debt securities	Convertible privately placed bonds	Equity securities	Held for trading	Designated as hedging
Beginning balance		14,900	611,871	170,873	584,998	(695)	(9,124)
Total profit or loss	Profit or loss	608	(11,451)	1,550	—	(22,790)	(21,714)
	Other comprehensive loss	—	—	—	(26,024)	—	—
Buy / issue		10,027	453,969	7,337	—	897	—
Sell / settlement		(590)	(109,529)	(172,366)	(542)	—	—
Ending balance		24,945	944,860	7,394	558,432	(22,588)	(30,838)

<2021>

Classification		Financial assets at FVTPL			Financial assets at FVOCI	Net derivative instruments	
		Equity securities	Debt securities	Convertible privately placed bonds	Equity securities	Held for trading	Designated as hedging
Beginning balance		5,462	483,414	257,607	648,250	(1,191)	152
Total profit or loss	Profit or loss	171	50,170	7,542	—	780	(9,276)
	Other comprehensive loss	—	—	—	(52,564)	—	—
Buy / issue		11,315	182,837	10,000	1,010	(284)	—
Sell / settlement		(2,048)	(104,550)	(104,276)	(11,698)	—	—
Ending balance		14,900	611,871	170,873	584,998	(695)	(9,124)

4-3 Current gains or losses recognized from changes in Level 3 financial instruments measured at fair value

Current gains or losses recognized from changes in Level 3 financial instruments at fair value for the years ended December 31, 2022 and 2021, are recorded in the consolidated statements of comprehensive income as follows.

(Korean won in millions):

<2022>

Classification	Total gains or losses recognized in profit or loss	Profit or loss recognized related to financial instruments held at the end of reporting period
Loss on financial instruments at FVTPL	(32,083)	(25,872)
Loss related to derivative instruments used for hedging	(21,714)	(21,714)
Total	(53,797)	(47,586)

<2021>

Classification	Total gains or losses recognized in profit or loss	Profit or loss recognized related to financial instruments held at the end of reporting period
Gain on financial instruments at FVTPL	58,663	55,340
Loss related to derivative instruments used for hedging	(9,276)	(9,124)
Total	49,387	46,216

4-4 Transfers between fair value hierarchy

There is no transfer into or out of Level 3 of the fair value hierarchy for the years ended December 31, 2022 and 2021.

4-5 Sensitivity Analysis

Sensitivity of the fair value measurement for each Level 3 financial instrument upon the changes in significant unobservable input, whose results are favorable and unfavorable changes in profit or loss or other comprehensive income as of December 31, 2022 and 2021, is as follows (Korean won in millions):

The sensitivity analysis of financial instruments classified as Level 3 amount to ₩1,046,318 million and ₩1,080,315 million as of December 31, 2022 and 2021, respectively, is impossible in practice and, thus, is excluded.

<December 31, 2022>

Classification	Favorable changes	Unfavorable changes
Financial assets		
Financial assets at FVTPL		
Equity securities (*2)	21	(11)
Debt securities (*3)	1,093	(1,047)
Derivative assets held for trading (*1)	86	(72)
Subtotal	1,200	(1,130)
Financial assets at FVOCI		
Equity securities (*2)	18,160	(10,963)
Total	19,360	(12,093)
Financial liabilities		
Derivative liabilities held for trading (*1)	152	(169)
Derivative liabilities used for hedging (*1)	6	(1)
Total	158	(170)

(*1) Unfavorable and favorable changes in fair value are calculated by increasing/decreasing 10% of 1) correlation between rates of Interest Rate Swap (IRS) of KRW, 2) correlation between rates of IRS of KRW and USD, 3) correlation between rates of IRS of USD and exchange rates of KRW/USD, 4) correlation between stock index and individual stock, and 5) correlation within evaluation model.

(*2) Changes in fair value of equity securities are calculated by increasing/decreasing growth rate (0.0~1.0%) and discount rate (-1.0~1.0%), which are main unobservable inputs.

(*3) Changes in fair value of debt securities are calculated by increasing/decreasing discount rate (-1.0~1.0%), which is the main unobservable input. It is impossible in practice to assess sensitivity based on the changes in input variables of beneficiary securities, but favorable or unfavorable changes in fair value, only limited to real estate, are calculated by changing discount rate of lease cash flow (-1.0~1.0%) and growth rate of selling price of real estate (-1.0~1.0%)

<December 31, 2021>

Classification	Favorable changes	Unfavorable changes
Financial assets		
Financial assets at FVTPL		
Equity securities (*2)	25	(20)
Debt securities (*3)	821	(767)
Convertible privately placed bonds (*4)	397	(294)
Derivative assets held for trading (*1)	567	(749)
Subtotal	1,810	(1,830)
Financial assets at FVOCI		
Equity securities (*2)	18,591	(14,587)
Total	20,401	(16,417)
Financial liabilities		
Derivative liabilities held for trading (*1)	729	(552)
Derivative liabilities used for hedging (*1)	287	(241)
Total	1,016	(793)

(*1) Unfavorable and favorable changes in fair value are calculated by increasing/decreasing 10% of 1) correlation between rates of Interest Rate Swap (IRS) of KRW, 2) correlation between rates of IRS of KRW and USD, 3) correlation between rates of IRS of USD and exchange rates of KRW/USD, 4) correlation between stock index and individual stock, and 5) correlation within evaluation model.

(*2) Changes in fair value of equity securities are calculated by increasing/decreasing growth rate (0.0~1.0%) and discount rate (-1.0~1.0%), which are main unobservable inputs.

(*3) Changes in fair value of debt securities are calculated by increasing/decreasing discount rate (-1.0~1.0%), which is the main unobservable input. It is impossible in practice to assess sensitivity based on the changes in input variables of beneficiary securities, but favorable or unfavorable changes in fair value, only limited to real estate, are calculated by changing discount rate of lease cash flow (-1.0~1.0%) and growth rate of selling price of real estate (-1.0~1.0%).

(*4) For convertible privately placed bonds, favorable and unfavorable changes in fair value are calculated by increasing or decreasing the price (-10.0~10.0%) and

variability (-10.0~10.0%) of underlying assets, which are the main unobservable inputs.

4-6 Financial assets and liabilities which are not measured at fair value

Financial assets and liabilities not measured at fair value in the consolidated financial statements, but for which the fair value is disclosed.

Fair value hierarchy of financial instruments at amortized cost as of December 31, 2022, and 2021, is as follows (Korean won in millions):

<December 31, 2022>

Classification	Levels of the fair value hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets:				
Cash and due from banks	1,903,972	39,183,885	–	41,087,857
Securities at amortized cost	3,579,863	32,007,819	–	35,587,682
Loans	–	–	327,015,538	327,015,538
Others	–	–	13,107,936	13,107,936
Total	5,483,835	71,191,704	340,123,474	416,799,013
Financial liabilities:				
Deposits	–	55,603,695	303,901,950	359,505,645
Borrowings	–	970,661	21,135,577	22,106,238
Debentures	–	25,675,257	–	25,675,257
Others	–	–	29,271,369	29,271,369
Merchant banking account liabilities	–	–	3,667,273	3,667,273
Total	–	82,249,613	357,976,169	440,225,782

<December 31, 2021>

Classification	Levels of the fair value hierarchy			Total
	Level 1	Level 2	Level 3	
Financial assets:				
Cash and due from banks	2,023,877	25,670,055	–	27,693,932
Securities at amortized cost	2,322,694	19,824,693	–	22,147,387
Loans	–	–	307,893,947	307,893,947
Others	–	–	13,524,389	13,524,389
Total	4,346,571	45,494,748	321,418,336	371,259,655
Financial liabilities:				
Deposits	–	50,706,451	271,332,462	322,038,913
Borrowings	–	1,091,728	16,413,204	17,504,932

Classification	Levels of the fair value hierarchy			Total
	Level 1	Level 2	Level 3	
Debentures	–	27,661,273	–	27,661,273
Others	–	–	25,694,939	25,694,939
Merchant banking account liabilities	–	–	2,908,280	2,908,280
Total	–	79,459,452	316,348,885	395,808,337

Details of fair value, valuation technique, and inputs used to develop those measurements classified into Level 2 assets and liabilities that are not measured at fair value as of December 31, 2022 and 2021, are as follows
(Korean won in millions):

<December 31, 2022>

Classification	Fair value	Valuation technique	Inputs
Financial assets:			
Cash and due from banks	39,183,885	DCF model	Discount rate
Securities at amortized cost	32,007,819	DCF model	Discount rate
Total	71,191,704		
Financial liabilities:			
Deposits	55,603,695	DCF model	Discount rate
Borrowings	970,661	DCF model	Discount rate
Debentures	25,675,257	DCF model	Discount rate
Total	82,249,613		

<December 31, 2021>

Classification	Fair value	Valuation technique	Inputs
Financial assets:			
Cash and due from banks	25,670,055	DCF model	Discount rate
Securities at amortized cost	19,824,693	DCF model	Discount rate
Total	45,494,748		
Financial liabilities:			
Deposits	50,706,451	DCF model	Discount rate
Borrowings	1,091,728	DCF model	Discount rate
Debentures	27,661,273	DCF model	Discount rate
Total	79,459,452		

Details of fair value, valuation technique, and inputs used to develop those measurements classified into Level 3 assets and liabilities disclosed but not measured at fair value as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Loans	327,015,538	DCF model	Credit and other spread, rate of advance redemption, etc.
Other financial assets	13,107,936	DCF model	Discount rate
Total	340,123,474		
Financial liabilities			
Deposits	303,901,950	DCF model	Other spread, rate of advance redemption
Borrowings	21,135,577	DCF model	Other spread
Other financial liabilities	29,271,369	DCF model	Discount rate
Merchant banking account liabilities	3,667,273	(*)	
Total	357,976,169		

(*) The carrying amount is considered fair value without applying the DCF method because it is derived from various transactions and has a relatively short or no maturity.

<December 31, 2021>

Classification	Fair value	Valuation technique	Inputs
Financial assets			
Loans	307,893,947	DCF model	Credit and other spread, rate of advance redemption, etc.
Other financial assets	13,524,389	DCF model	Discount rate
Total	321,418,336		
Financial liabilities			
Deposits	271,332,462	DCF model	Other spread, rate of advance redemption
Borrowings	16,413,204	DCF model	Other spread
Other financial liabilities	25,694,939	DCF model	Discount rate
Merchant banking account liabilities	2,908,280	(*)	
Total	316,348,885		

(*) The carrying amount is considered fair value without applying the DCF method because it is derived from various transactions and has a relatively short or no maturity.

4-7 Gain and loss on deferred Day 1

Changes in gain (loss) on deferred Day 1 for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	2022	2021
Beginning balance	(548)	(149)
Amount of new accrual	(1,734)	(535)
Amounts recognized as current profit or loss	152	136
Ending balance	(2,130)	(548)

4-8 Financial instruments transfer transaction

4-8-1 Bonds sold under repurchase agreements

As of the end of December 31 2022 and 2021, details of financial instruments that did not meet the derecognition requirements due to the sale of securities held by the Group on condition of repurchase at a fixed price during the bonds sold under repurchase agreements are as follows (Korean won in millions):

<December 31, 2022>

Classification	Book value	Fair value
Transferred asset sets		
Financial assets at FVOCI	46	46
Financial assets at amortized cost	484,066	443,630
Related liabilities		
Bonds sold under repurchase agreements	487,732	436,183

<December 31, 2021>

Classification	Book value	Fair value
Transferred asset sets		
Financial assets at FVOCI	203,961	203,961
Financial assets at amortized cost	910,146	903,179
Related liabilities		
Bonds sold under repurchase agreements	1,078,571	1,059,729

4-8-2 Loaned securities

When lending securities held by the Group, ownership of the securities is transferred, however, the securities would be returned at the end of the rental period. Therefore, the Group continues to recognize the entire loaned securities as it retains most of the risks and rewards of the securities. Details of loaned securities as of the end of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Book value	Fair value
Financial assets at FVTPL	412,492	412,492
Financial assets at FVOCI	1,925,345	1,925,345
Financial assets at amortized cost	416,386	395,502

<December 31, 2021>

Classification	Book value	Fair value
Financial assets at FVTPL	49,906	49,906
Financial assets at FVOCI	2,538,542	2,538,542
Financial assets at amortized cost	59,586	58,624

4-8-3 Asset-backed securitization

The Group's consolidated structured companies issued asset-backed securities by securitizing their securities and loans. The Group retains the contractual right to receive cash flows from the financial assets, but the received cash flows are effectively transferred to the holder of asset-backed securities. In addition, the Group bears related risks through purchase agreements or credit exposures.

As of the end of December 31, 2022 and 2021, details of financial instruments that were transferred, but not derecognized in relation to asset-backed securitization transactions by the Group are as follows (Korean won in millions):

Classification		December 31, 2022	December 31, 2021
		Book value(*)	Book value(*)
Transferred asset sets	Financial assets at FVTPL	20,000	20,000
	Loans at amortized cost	1,291,332	1,335,098
	Total	1,311,332	1,355,098
Related liabilities	Asset-backed securitization borrowing	1,321,944	1,335,319
	Asset-backed securitization bond	–	30,000
	Total	1,321,944	1,365,319

(*) Carrying amount is before allowances for doubtful debts.

5. Fair value of financial assets and liabilities

Book values and fair values of financial assets and liabilities as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022		December 31, 2021	
	Book value	Fair value	Book value	Fair value
Financial assets:				
Cash and due from banks	41,087,857	41,087,857	27,693,932	27,693,932
Financial assets at FVTPL	18,455,415	18,455,415	10,918,562	10,918,562
Financial assets at FVOCI	32,960,581	32,960,581	35,234,358	35,234,358
Securities at amortized cost	37,583,487	35,587,682	22,467,884	22,147,387
Loans	330,186,341	327,015,538	309,177,708	307,893,947
Derivative assets used for hedging	8,062	8,062	68,670	68,670
Other financial assets	13,108,142	13,107,936	13,524,234	13,524,389
Merchant banking account assets	4,631,361	4,631,361	4,741,939	4,741,939
Total	478,021,246	472,854,432	423,827,287	422,223,184
Financial liabilities:				
Financial liabilities at FVTPL	11,228,307	11,228,307	4,188,107	4,188,107
Deposits	359,858,481	359,505,645	321,125,300	322,038,913
Borrowings	22,256,597	22,106,238	17,524,480	17,504,932
Debentures	26,233,339	25,675,257	27,699,757	27,661,273
Derivative liabilities used for hedging	516,418	516,418	111,192	111,192
Other financial liabilities	29,271,370	29,271,369	25,694,940	25,694,939
Merchant banking account liabilities	3,667,273	3,667,273	2,908,280	2,908,280
Total	453,031,785	451,970,507	399,252,056	400,107,636

The following standards are applied in measuring the fair value of financial instruments:

- Loans: Expected cash flows, current market interest rates and discount rates including borrowers' credit risks are factors to calculate the fair value of loans. For lines of credit available for deposit and withdrawal from time to time and loans that have a short-term maturity (less than three months), it is assumed that the carrying amounts approximate their fair value.
- Securities at amortized cost : The fair value of securities at amortized cost is

as stated by the market, broker, or by credible sources. If none of the information from these entities is usable, quoted market price of financial instruments with similar credit rating, maturity and return on investment (ROI) is used to estimate the fair value.

- c. Deposits: For deposits without an explicit maturity period including deposits with no interests, deposits that have a short-term maturity (less than three months) and deposits with a floating-rate readjustment period of less than three months, it is assumed that the carrying amounts approximate their fair value. The estimated fair value of fixed interest-bearing deposits is based on discounted future cash flows using interest rates for new financial liability with similar time to maturity.
- d. Borrowings: For borrowings that have a short-term maturity (less than three months) and borrowings with floating-rate readjustment period of less than three months, it is assumed that the carrying amounts approximate their fair value. The estimated fair value of fixed interest-bearing borrowings is based on discounted future cash flows using interest rates for new financial liability with similar time to maturity.
- e. Debentures: For debentures issued, the fair values are determined based on quoted market prices in active market. For those issued where quoted market prices in active market are not available, a discounted cash flow model is used based on a current interest rate yield curve appropriate for the remaining term to maturity and credit spreads.

6. Categories of financial assets and financial liabilities

6-1 The Group categorizes its financial assets as of December 31, 2022 and 2021, as follows (Korean won in millions):

<December 31, 2022>

Classification	Financial assets at FVTPL	Financial assets at FVOCI	Financial assets at amortized cost	Derivatives for hedging	Total
Cash and due from banks	–	–	41,087,857	–	41,087,857
Financial assets at FVTPL	18,455,415	–	–	–	18,455,415
Financial assets at FVOCI	–	32,960,581	–	–	32,960,581
Securities at amortized cost	–	–	37,583,487	–	37,583,487
Loans	–	–	330,186,341	–	330,186,341
Derivative assets used for hedging instruments	–	–	–	8,062	8,062
Other financial assets	–	–	13,108,142	–	13,108,142
Merchant banking account assets	4,631,361	–	–	–	4,631,361
Total	23,086,776	32,960,581	421,965,827	8,062	478,021,246

<December 31, 2021>

Classification	Financial assets at FVTPL	Financial assets at FVOCI	Financial assets at amortized cost	Derivatives for hedging	Total
Cash and due from banks	–	–	27,693,932	–	27,693,932
Financial assets at FVTPL	10,918,562	–	–	–	10,918,562
Financial assets at FVOCI	–	35,234,358	–	–	35,234,358
Securities at amortized cost	–	–	22,467,884	–	22,467,884
Loans	–	–	309,177,708	–	309,177,708
Derivative assets used for hedging instruments	–	–	–	68,670	68,670
Other financial assets	–	–	13,524,234	–	13,524,234
Merchant banking account assets	4,741,939	–	–	–	4,741,939
Total	15,660,501	35,234,358	372,863,758	68,670	423,827,287

6-2 The Group categorizes its financial liabilities as of December 31, 2022 and 2021, as follows (Korean won in millions):

<December 31, 2022>

Classification	Financial liabilities at FVTPL	Financial liabilities designated as measured at FVTPL	Financial liabilities at amortized cost	Derivatives for hedging	Total
Financial liabilities at FVTPL	11,066,238	162,069	—	—	11,228,307
Deposits	—	—	359,858,481	—	359,858,481
Borrowings	—	—	22,256,597	—	22,256,597
Debentures	—	—	26,233,339	—	26,233,339
Derivative liabilities used for hedging instruments	—	—	—	516,418	516,418
Other financial liabilities	—	—	29,271,370	—	29,271,370
Merchant banking account liabilities	—	—	3,667,273	—	3,667,273
Total	11,066,238	162,069	441,287,060	516,418	453,031,785

<December 31, 2021>

Classification	Financial liabilities at FVTPL	Financial liabilities designated as measured at FVTPL	Financial liabilities at amortized cost	Derivatives for hedging	Total
Financial liabilities at FVTPL	3,992,507	195,600	—	—	4,188,107
Deposits	—	—	321,125,300	—	321,125,300
Borrowings	—	—	17,524,480	—	17,524,480
Debentures	—	—	27,699,757	—	27,699,757
Derivative liabilities used for hedging instruments	—	—	—	111,192	111,192
Other financial liabilities	—	—	25,694,940	—	25,694,940
Merchant banking account liabilities	—	—	2,908,280	—	2,908,280
Total	3,992,507	195,600	394,952,757	111,192	399,252,056

7. Offsetting of financial assets and liabilities

The Group engages in master netting agreement with counterparties through International Swaps and Derivatives Association (ISDA) or similar agreements in relation to over-the-counter derivatives and spot exchange transactions. Under this agreement, in the event of the counterparty's bankruptcy, etc., the transaction with the counterparty will be terminated. Upon termination, the amounts to be paid or received by each party are offset and paid or received. Repurchase agreements trade and securities lending and borrowing of securities have been made by offsetting arrangement, which is similar to the arrangement for derivatives.

In the case of uncollected domestic exchange bonds and unpaid domestic exchange obligations between banks, as the Group holds the rights of setoff and settles in net amounts, the net amounts are presented in the consolidated statement of financial position. Other financial instruments include bonds and debts related to securities traded in the market, which are presented in net amounts in the separate statement of financial position as there is a legally enforceable right of setoff and intention to settle on a net basis.

7-1 Financial assets offset, the executable Master Netting Agreement and financial assets subject to a similar arrangement as of December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	Gross amounts of recognized financial assets	Gross amounts of financial liabilities offset	Net amounts of financial assets presented in the consolidated financial statements	Related amounts of not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	9,788,886	–	9,788,886	(7,438,461)	(1,480,302)	870,123
Securities lent	2,754,223	–	2,754,223	(2,754,223)	–	–
Bonds purchased under resale agreement	11,776,664	–	11,776,664	(11,776,664)	–	–
Spot exchange that has not been received or settled	5,961,620	–	5,961,620	(5,960,185)	–	1,435
Domestic ex change settlement debit	40,665,026	36,441,676	4,223,350	–	–	4,223,350
Other accounts receivable	4,419	4,419	–	–	–	–

Classification	Gross amounts of recognized financial assets	Gross amounts of financial liabilities offset	Net amounts of financial assets presented in the consolidated financial statements	Related amounts of not offset (*)		Net amount
				Financial instruments	Cash collateral	
Total	70,950,838	36,446,095	34,504,743	(27,929,533)	(1,480,302)	5,094,908

(*) The rights to set-off exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the consolidated statements of financial position as they do not meet the criteria for offsetting.

<December 31, 2021>

Classification	Gross amounts of recognized financial assets	Gross amounts of financial liabilities offset	Net amounts of financial assets presented in the consolidated financial statements	Related amounts of not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	4,170,019	-	4,170,019	(2,848,122)	(226,812)	1,095,085
Securities lent	2,648,033	-	2,648,033	(2,648,033)	-	-
Bonds purchased under resale agreement	11,380,982	-	11,380,982	(11,380,982)	-	-
Spot exchange that has not been received or settled	7,697,333	-	7,697,333	(7,691,616)	-	5,717
Domestic exchange settlement debit	36,854,002	33,077,375	3,776,627	-	-	3,776,627
Other accounts receivable	19,711	13,237	6,474	-	-	6,474
Total	62,770,080	33,090,612	29,679,468	(24,568,753)	(226,812)	4,883,903

(*) The rights to set-off exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the separate statements of financial position as they do not meet the criteria for offsetting.

7-2 Financial liabilities offset, the executable master netting arrangements and financial liabilities subject to a similar agreement as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Gross amounts of recognized financial liabilities	Gross amounts of financial assets offset	Net amounts of financial liabilities presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	11,026,763	-	11,026,763	(9,022,247)	(59,116)	1,945,400
Securities borrowed	323,661	-	323,661	(323,661)	-	-
Bonds sold under repurchase agreements	487,732	-	487,732	(487,732)	-	-
Spot exchange that has not been received or settled	5,961,729	-	5,961,729	(5,960,245)	-	1,484
Domestic exchange settlement credit	41,945,503	36,441,676	5,503,827	-	-	5,503,827

Classification	Gross amounts of recognized financial liabilities	Gross amounts of financial assets offset	Net amounts of financial liabilities presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Other accounts payable	9,592	4,419	5,173	–	–	5,173
Total	59,754,980	36,446,095	23,308,885	(15,793,885)	(59,116)	7,455,884

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the consolidated statements of financial position as they do not meet the criteria for offsetting.

<December 31, 2021>

Classification	Gross amounts of recognized financial liabilities	Gross amounts of financial assets offset	Net amounts of financial liabilities presented in the consolidated financial statements	Related amounts not offset (*)		Net amount
				Financial instruments	Cash collateral	
Derivatives	3,960,655	–	3,960,655	(2,962,393)	(245,695)	752,567
Securities borrowed	143,044	–	143,044	(143,044)	–	–
Bonds sold under repurchase agreements	1,078,571	–	1,078,571	(1,078,571)	–	–
Spot exchange that has not been received or settled	7,696,787	–	7,696,787	(7,691,621)	–	5,166
Domestic exchange settlement credit	39,250,073	33,077,375	6,172,698	(6,172,698)	–	–
Other accounts payable	24,286	13,237	11,049	–	–	11,049
Total	52,153,416	33,090,612	19,062,804	(18,048,327)	(245,695)	768,782

(*) The rights to offset exist only in case of default, insolvency or bankruptcy.

Accordingly, the amounts are not offset in the consolidated statements of financial position as they do not meet the criteria for offsetting.

8. Risk management

The Group is exposed to credit risk, liquidity risk, market risk and various operating risks. The objectives of risk management are to pursue economic benefits by managing the associated risk in the changing financial environment and to utilize capital efficiently.

The basic principles of risk management are as follows:

- Minimize the rapid fluctuation in profit by balancing the risks and the income.
- Maximize long-term shareholder value.

- c. Comply with procedures to ensure operating activities are confined to allowable risk limits.
- d. Examine the type and size of risk along with the changes in potential economic value of portfolios and establish risk management strategy in order to utilize assets and distribute capital efficiently.

The basic policies in order to realize the basic principles of risk management are as follows:

- a. Set and comply with allowable limits for each risk type.
- b. Establish an appropriate balance between income and associated risk.
- c. When a conflict between income and associated risk exists, the Group pursues income while complying with the allowable risk limits.
- d. Prioritize the distribution of risk in order to avoid risk concentration in certain areas.
- e. Analyze the effect of various market fluctuations on parts or the entire portfolio on a regular basis.
- f. Separate risk management segments, operational segments, and other segments which deal with trade confirmations and payments in order to maintain independence.

8-1 Strategy and procedure of risk management

8-1-1 Operation of and setting risk limits

The Group established and operates a limit management system to maintain the appropriate level of risk relative to the equity capital held. The Risk Management Committee approves total risk limits and limits by types of risks, taking into account of capital, business plans, risk management regulations, and institutional changes within the risk level that the Group can manage. The Risk Management Operation Committee sets up and allocates other operational limits (e.g., by organization, product, investment, and loss) to comply with allowable limits for each type of risk, approved by the Risk Management Committee and periodically checks the status of limit management.

8-1-2 Risk measurement and management

The Group prepares the appropriate risk measurement methods considering the nature of risks, and measures them by the types of risks. Risk measurement and evaluation results are regularly reviewed, and reported to the Risk Management Committee, Risk Management Operation Committee, and management. Risk measurement and evaluation results are also used for daily business management activities such as establishment of business plan and management strategy.

8-1-3 Operation of risk management information system

In order to provide advanced risk management in a rapidly changing financial environment, the Group has established a company-wide risk management system that meets the new Bank for International Settlements ("BIS") standards. The Group operates credit risk internal grading (changes are approved in November 2008, June 2016 and March 2021), advanced operational risk measurement method (changes are approved in November 2008 and June 2016) and market risk internal model (changes are approved in April 2008 and August 2016 [retrospective application in June 2016]).

8-1-4 Operation of crisis management system

The Group operates a crisis management system that can respond effectively to the crisis caused by drastic changes in the internal and external management environment. The Group operates an early warning system in order to respond to the drastic changes in the financial market in a consistent and systematic manner. In the event of an anomaly, the holding company declares the level of crisis at the group level, and the Group analyzes the impact on the portfolio in accordance with the step-by-step plan and carries out the countermeasures.

8-2 Organization and structure of risk management

The risk management organization consists of the Risk Management Committee, Risk Management Operation Committee under the Risk Management Committee within the Board of Directors, the risk management officer, and the organization

in charge of risk management, which are the top decision-making bodies for the risk management. The organization in charge of risk management, independent from operating segment, manages risk limits and risk management policies.

8-2-1 Risk Management Committee

The Risk Management Committee regularly holds meeting once every quarter and resolves the establishment and management of allowable limits for risks, establishment and changes in risk management policies, and reviews the results of the management of allowable risk limits and suitability tests of risk management system.

8-2-2 Risk Management Operation Committee

The Risk Management Operation Committee is responsible for setting and allocating specific operational limits for compliance with the allowable limits for each type of risk as resolved by the Risk Management Committee, adjusting the internal capital limit between business units within the same risk type, and carrying out risk management policies and strategies set by the Risk Management Committee, including preliminary deliberations on the agenda items.

8-2-3 Organization in charge of risk management

The Risk Management Group is composed of Comprehensive Risk Management Team, Credit Risk Management Team, and Credit Supervision Team. The Risk Management Group is independent of sales and investment sector and manages the execution of risk management policies. The Comprehensive Risk Management Team oversees the market, interest rate, liquidity, operational risk, and middle office, and supports the Risk Management Committee and Risk Management Operation Committee. The Credit Risk Management Team oversees credit risk and credit concentration risk. The Credit Supervision Team oversees the loans and early warning system.

8-3 Credit risk

Credit risk is a risk incurred when the Group faces a loss because its customers or counterparties fail to discharge their contractual obligations. Credit risk arises from on-balance and off-balance accounts including loans, derivatives, securities, financial guarantees agreement and other guarantees.

8-3-1 Management of credit risk

8-3-1-1 Loans

8-3-1-1-1 Measurement of credit risk

To determine the possibility of bankruptcy for its customers or counterparties, the Group uses various methods comprehensively. Risks pertaining to the retail sector compared to those pertaining to the corporate sector are relatively easy to predict but cyclical and seasonal factors may influence the outcomes.

The frequency of impairment loss in the overall retail sector is relatively high but in terms of individual cases, the loss rate is lower than in the corporate sector. Based on these differences, the Group manages each segment differently in terms of credit rating, pricing and subsequent management.

As for the business customers, the branch managers and credit rating team carry out the credit risk assessment by using a detailed valuation model depending on the size and the nature of the industry. The corporate financial valuation model is further subdivided based on the characteristics of the loans and is a combination of statistical and expert valuation models. Also, the Loan Review team of the Credit Risk Management regularly performs the subsequent reviews in order to establish adequacy of the credit grading. As for the retail sector, a Credit Scoring System is used to compute the credit scores of the borrower. The system includes an Application Scoring Model which is used for the application of loans and a Behavioral Scoring Model which has been used after handling of the loans.

Expected loss is calculated using the expected default rate based upon the

historical default rate and the estimated loss rate gives a rise to the default rate from a collection of historical information. A measured expected loss is reflected on the client's interest rate and allowances when applying or renewing a loan. Unexpected loss takes into account the allowance for potential volatility in the actual loss. Unexpected loss is calculated using the inner Credit Metrics Model with 99.9% of the confidence level and the measured figure is used as a credit risk reference value and is used as part of the unexpected loss when calculating interest rates.

8-3-1-1-2 Management of credit risk

8-3-1-1-2-1 Management process

Both retail and corporate sectors are developing and operating a credit risk management system appropriately designed for each sector. The Credit Risk Management Committee and Credit Rating Team measure and manage credit risks for the corporate sector; Credit Risk Management Committee and Personal Loans Committee measure and manage credit risks for the retail sector.

The Group manages as well as controls the credit risk by setting the limits on the amount of risk willing to accept for individual counterparties and for geographical and industry concentration, and by monitoring exposures relating to such limits. The Group reviews on a monthly basis in accordance with the economic conditions and industry characteristics and examines the adequacy of the limits on a quarterly basis. The Group continuously manages credit rating models for retail and corporate sectors and examines the adequacy of loss given default ("LGD") and exposure at default ("EAD"), and any related information.

8-3-1-1-2-2 Credit limits management and capital allocation

The Group annually performs a comprehensive analysis on economic conditions and changes in the economic environment in order to appropriately assess the credit quality of financial assets by setting credit limits on same entities, industries, countries, and financial instruments. In addition, for the unexpected loss management, the Group regularly sets, distributes and checks for the

compliance maintenance of internal capital limits according to the corporate and household sectors and the size of clients through the risk management system.

8-3-1-1-2-3 Risk monitoring and early warning system

The Group measures and manages the risk indicators such as delinquency rate, roll-rate, and roll-rate classified by past due. Also, in order to assess the credit quality of the assets, the Group operates an early warning system and regularly examines companies whose credit rating is likely to degrade.

8-3-1-1-2-4 Credit rating system

In order to separately evaluate the characteristics of clients in the corporate sector, the Group operates a detailed valuation model based on the external and non-external audit and is in the process of continuing the stability of the corporate credit rating system through the subsequent examinations and performance improvements. The Group operates a detailed valuation model based on the credit rating model and the activity rating model for the household sector in accordance with the client's characteristics. The Group improves the efficiency of the model through the subsequent examinations and performance improvements. Credit rating on new clients as well as an automatic renewal and adjustments to the credit limits are managed by the household and SOHO credit extension system.

8-3-1-1-2-5 Examination of credit

For a large amount of credit line, after the approval of credit extension, the Group regularly examines the borrower's credit status and the adequacy of the borrower's credit rating as in part of the subsequent management process. In addition, the Group significantly focuses on industries by increasing credit risks based on the analysis of the risk indicators and examines the sample for smaller credit extensions.

8-3-1-1-2-6 Risk mitigation policy

The Group obtains the collateral for the granted loans in order to reduce risks. Guidelines are implemented regarding the acceptability of types of collateral and valuation parameters. The main types of the collateral obtained are as follows:

- a. Residential properties in relation with mortgage loans
- b. Business assets such as equipments, plants and real estate properties
- c. Financial instruments such as deposits, debt and equity securities

8-3-1-2 Debt securities

The Group trades the debt securities above the Investment-Grade Status level in order to manage the credit risks and manage the exposure of credit ratings to maintain credit quality of the assets.

8-3-1-3 Derivative instruments

The credit risk arising from the derivative instruments is managed based on the net position and maintained under a strict control limit. The degree of credit risk exposure is measured based on the positive fair values of derivative instruments. The Group manages the exposure as a part of the unused commitment of loans.

8-3-2 Significant increase in credit risk

The Group measures the expected credit loss for debt instruments at amortized cost or FVOCI in three stages as described below:

8-3-2-1 Stage 1: 12-month ECL

For financial assets of which the credit risk has not increased significantly since initial recognition, ECLs that result from default events that are possible within 12 months after the reporting date are recognized.

8-3-2-2 Stage 2: Lifetime ECL

For financial assets of which the credit risk has increased significantly, but not impaired, since initial recognition, ECLs that result from all possible default

events over the expected life of the financial instrument are recognized.

8-3-2-3 Stage 3: Lifetime ECL

A financial asset is credit impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Lifetime ECL is recognized for credit-impaired financial assets, and interest income is recognized using the effective interest rate (EIR) on amortized cost.

The Group assesses at each reporting date whether the significant of the increase of the credit risk compared to that of initial recognition, using internal and external credit rating information, early warning system and number of days past due.

8-3-2-4 Occurrence of default

The Group considers that a default has occurred for financial assets on following situations:

- a. When receivables are sold despite of an economic loss.
- b. When receivables have decreased due to adjustments resulting in an exemption of principal, interest or related fees or delayed payments.
- c. When the borrower has been declared bankruptcy or has declared bankruptcy or has taken other similar measures to delay or avoid repayments.

8-3-2-5 Method for determining whether a financial asset is credit impaired

A financial item is deemed impaired if, and only if, there is objective evidence of impairment as a result of one or more events which have occurred after the initial recognition of the item (an incurred 'loss event') and that loss event (or events) has an impact on the estimated future cash flows, such as changes in arrears or economic conditions which correlate with defaults, delinquency in interest for more than 90 days, credit deterioration resulting in misleading information and damages incurred due to poor exposure.

8-3-3 Measurement of ECL

ECL is measured at the probability-weighted amounts of the present value of all cash shortfalls over the expected life of the financial instrument. A cash shortfall is the difference between the cash flows that are due to an entity in accordance with the contract and the cash flows that the entity expects to receive.

However, the Group adjusts historical data, such as credit loss experience, on the basis of current observable data to reflect the effects of the current conditions and its forecasts of future conditions that did not affect the period on which the historical data is based, and to remove the effects of the conditions in the historical period that are not relevant to the future contractual cash flows. Also, the Group measures ECL using the macroeconomic factors such as the growth rate, interest rate and stock indices. The methodology for future economic forecasts is regularly reviewed.

If the credit risk on financial instruments, for which lifetime ECLs have been recognized, subsequently improves so that the requirement for recognizing lifetime ECLs is no longer met, the loss allowance should be measured at an amount equal to 12 month ECLs.

8-3-4 Write-off policy

Financial assets are written off when an entity has no reasonable expectations of recovering the contractual cash flows on a financial asset in its entirety or a portion thereof. Generally, financial assets are written off when it is determined that the Group is not able to generate sufficient cash flows to make repayments. However, financial assets written off can be recovered by the Group.

8-3-5 The maximum exposure to credit risk

The maximum exposure to credit risk as of December 31, 2022 and 2021, is as follows. The following table shows the maximum exposure to credit risk before the effect of mitigation through credit enhancement and collateral agreements, and reflects the impairment losses and master netting.

Equity securities in financial assets at FVTPL and financial assets at FVOCI are excluded (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
On-balance-sheet items		
Due from banks	39,183,885	25,670,055
Financial assets at FVTPL		
Debt securities	8,553,379	6,550,007
Derivative assets held for trading	9,851,754	4,101,349
Private convertible bonds	7,394	170,873
Subtotal	18,412,527	10,822,229
Financial assets at FVOCI	32,150,076	34,322,778
Securities at amortized cost	37,583,487	22,467,884
Derivative assets used for hedging instruments	8,062	68,670
Loans	330,186,341	309,177,708
Other financial assets	13,108,142	13,524,234
Merchant banking account assets	4,631,361	4,741,939
Total	475,263,881	420,795,497
Off-balance-sheet items		
Financial guarantee contracts	447,724	368,042
Payment guarantee	20,644,157	16,502,708
Commitments	101,383,405	90,818,933
Merchant banking account-commitment	620,000	790,000
Total	123,095,286	108,479,683

8-3-6 Details of effects of credit risk mitigation by collateral and other credit enhancements

The financial effects related to credit risk mitigated by collateral and other credit enhancements as of December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	Impaired loan	
	Individual assessment	Collective assessment
Guarantees	13,949	159,755
Deposits	92	11,930
Real estates	157,237	217,226
Others	5,694	5,283
Total	176,972	394,194

<December 31, 2021>

Classification	Impaired loan	
	Individual assessment	Collective assessment
Guarantees	12,936	100,248
Deposits	90	10,593
Real estates	202,495	189,377
Securities	—	58
Others	22,630	3,500
Total	238,151	303,776

8-3-6-1 The amount of financial assets for which loss allowance is not recognized due to sufficient collaterals is ₩1,288,560 million and ₩455,162 million as of December 31, 2022 and 2021, respectively.

8-3-6-2 There is no change in the collateral policy of the Group.

8-3-7 Credit risk exposure

8-3-7-1 Loans

As of December 31, 2022 and 2021, gross carrying amounts of loans by internal credit rating in accordance with the loss allowance measurement method are as follows (Korean won in millions):

<December 31, 2022>

Classification	12-month expected credit loss	Lifetime expected credit loss		Total
		Non-credit-impaired loans	Credit-impaired loans	
Household loans				
Grade 1	100,581,728	18,267,978	–	118,849,706
Grade 2	6,808,923	6,154,047	–	12,962,970
Grade 3	150,384	235,570	342,308	728,262
Subtotal	107,541,035	24,657,595	342,308	132,540,938
Corporate loans				
Grade 1	122,350,304	3,063,130	–	125,413,434
Grade 2	59,477,536	10,398,130	3,258	69,878,924
Grade 3	78,389	3,031,102	553,833	3,663,324
Subtotal	181,906,229	16,492,362	557,091	198,955,682
Total	289,447,264	41,149,957	899,399	331,496,620

<December 31, 2021>

Classification	12-month expected credit loss	Lifetime expected credit loss		Total
		Non-credit-impaired loan	Credit-impaired loans	
Household loans				
Grade 1	101,423,012	18,898,029	–	120,321,041
Grade 2	7,028,503	5,378,956	–	12,407,459
Grade 3	76,266	112,718	284,187	473,171
Subtotal	108,527,781	24,389,703	284,187	133,201,671
Corporate loans				
Grade 1	106,745,190	2,576,683	–	109,321,873

Classification	12-month expected credit loss	Lifetime expected credit loss		Total
		Non-credit-impaired loan	Credit-impaired loans	
Grade 2	55,184,699	9,739,824	–	64,924,523
Grade 3	53,864	2,112,371	617,979	2,784,214
Subtotal	161,983,753	14,428,878	617,979	177,030,610
Total	270,511,534	38,818,581	902,166	310,232,281

Net deferred origination fees and costs are not reflected in the gross carrying amounts above.

The Group categorizes loans based on the nature of the borrowers as follows:

<December 31, 2022>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.49% of PD	Less than or equal to 0.58% of PD	Less than or equal to 2.85% of PD
Grade 2	From 0.49% to 24.93% of PD	From 0.58% to 12.83% of PD	From 2.85% to 27.43% of PD
Grade 3	From 24.93% to 100% of PD	From 12.83% to 100% of PD	From 27.43% to 100% of PD

<December 31, 2021>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.58% of PD	Less than or equal to 0.51% of PD	Less than or equal to 2.56% of PD
Grade 2	From 0.58% to 30.72% of PD	From 0.51% to 10.99% of PD	From 2.56% to 25.64% of PD
Grade 3	From 30.72% to 100% of PD	From 10.99% to 100% of PD	From 25.64% to 100% of PD

8-3-7-2 Off-balance-sheet items

As of December 31, 2022 and 2021, exposures of off-balance-sheet items by internal credit rating in accordance with the loss allowance measurement method are as follows (Korean won in millions):

<December 31, 2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired off-balance-sheet items	Credit-impaired off-balance-sheet items	
Financial guarantee contracts				
Grade 1	300,233	60,616	—	360,849
Grade 2	59,553	22,248	—	81,801
Grade 3	—	5,070	4	5,074
Subtotal	359,786	87,934	4	447,724
Payment guarantees				
Grade 1	16,321,420	579,746	—	16,901,166
Grade 2	2,956,691	404,440	—	3,361,131
Grade 3	8	359,682	22,170	381,860
Subtotal	19,278,119	1,343,868	22,170	20,644,157
Commitments				
Grade 1	82,254,638	4,969,974	—	87,224,612
Grade 2	11,438,109	2,424,262	—	13,862,371
Grade 3	1,270	259,611	35,541	296,422
Subtotal	93,694,017	7,653,847	35,541	101,383,405
Total	113,331,922	9,085,649	57,715	122,475,286

<December 31, 2021>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired off-balance-sheet items	Credit-impaired off-balance-sheet items	
Financial guarantee contracts				
Grade 1	219,042	55,091	—	274,133
Grade 2	63,309	26,447	—	89,756
Grade 3	—	4,149	4	4,153
Subtotal	282,351	85,687	4	368,042
Payment guarantees				
Grade 1	11,774,377	1,075,730	—	12,850,107
Grade 2	2,740,338	588,344	—	3,328,682
Grade 3	8	297,838	26,073	323,919
Subtotal	14,514,723	1,961,912	26,073	16,502,708
Commitments				
Grade 1	72,077,603	4,980,300	—	77,057,903
Grade 2	10,512,662	2,931,905	—	13,444,567
Grade 3	7,526	282,149	26,788	316,463
Subtotal	82,597,791	8,194,354	26,788	90,818,933
Total	97,394,865	10,241,953	52,865	107,689,683

The Group categorizes off-balance-sheet items based on the nature of the borrowers as follows:

<December 31, 2022>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.49% of PD	Less than or equal to 0.58% of PD	Less than or equal to 2.85% of PD
Grade 2	From 0.49% to 24.93% of PD	From 0.58% to 12.83% of PD	From 2.85% to 27.43% of PD
Grade 3	From 24.93% to 100% of PD	From 12.83% to 100% of PD	From 27.43% to 100% of PD

<December 31, 2021>

Classification	Household loans	Corporate loans	SOHO
Grade 1	Less than or equal to 0.58% of PD	Less than or equal to 0.51% of PD	Less than or equal to 2.56% of PD
Grade 2	From 0.58% to 30.72% of PD	From 0.51% to 10.99% of PD	From 2.56% to 25.64% of PD
Grade 3	From 30.72% to 100% of PD	From 10.99% to 100% of PD	From 25.64% to 100% of PD

8-3-7-3 Debt securities

As of December 31, 2022 and 2021, gross carrying amounts of debt securities by internal credit rating in accordance to the loss allowance measurement method are as follows (Korean won in millions):

<December 31, 2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt	Credit-impaired debt	
Securities at amortized cost				
Grade 1	37,502,676	—	—	37,502,676
Grade 2	71,783	—	—	71,783
Grade 3	—	24,507	67,337	91,844
Subtotal	37,574,459	24,507	67,337	37,666,303
Financial assets at FVOCI				
Grade 1	32,135,336	—	—	32,135,336
Grade 2	14,740	—	—	14,740
Grade 3	—	—	—	—
Subtotal	32,150,076	—	—	32,150,076
Total	69,724,535	24,507	67,337	69,816,379

<December 31, 2021>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt	Credit-impaired debt	
Securities at amortized cost				
Grade 1	22,317,152	–	–	22,317,152
Grade 2	76,096	68,827	–	144,923
Grade 3	–	25,113	–	25,113
Subtotal	22,393,248	93,940	–	22,487,188
Financial assets at FVOCI				
Grade 1	34,322,778	–	–	34,322,778
Grade 2	–	–	–	–
Grade 3	–	–	–	–
Subtotal	34,322,778	–	–	34,322,778
Total	56,716,026	93,940	–	56,809,966

The credit ratings of debt securities based on the internal rating used by the Group and credit ratings by external credit rating agencies are as follows:

Classification	Internal credit rating	Domestic rating agencies	Overseas rating agencies	
			Moody's	Fitch
Grade 1	A1 ~ A7	AAA ~ BBB	Aaa ~ Ba2	AAA ~ BB
Grade 2	B1 ~ B6	BBB- ~ BB-	Ba3 ~ B3	BB- ~ B-
Grade 3	C1 ~ C3	B+ ~ CCC	Caa1 ~ C	CCC+ ~ C

8-3-8 Credit risk concentration

8-3-8-1 Credit risk concentration in each major industry as of December 31, 2022 and 2021, is as follows (Korean won in millions):

<December 31, 2022>

Classification	Industry	Amounts	Ratio (%)
On balance sheet items			
Due from banks	Financial services	39,183,885	100.0
	Financial services	14,814,380	80.5
	Manufacturing	1,038,021	5.6

Classification	Industry	Amounts	Ratio (%)
Financial assets at FVTPL	Public administration	2,196,846	11.9
	Construction	21,425	0.1
	Wholesale & retail	54,384	0.3
	Others	287,471	1.6
	Subtotal	18,412,527	100.0
Financial assets at FVOCI	Financial services	15,191,734	47.3
	Manufacturing	193,539	0.6
	Public administration	13,374,970	41.6
	Construction	55,070	0.2
	Wholesale & retail	117,243	0.4
	Others	3,217,520	9.9
	Subtotal	32,150,076	100.0
Securities at amortized cost	Financial services	19,193,033	51.0
	Manufacturing	234,257	0.6
	Public administration	9,639,915	25.6
	Construction	43,495	0.1
	Wholesale & retail	40,000	0.1
	Others	8,515,603	22.6
	Subtotal	37,666,303	100.0
Derivative assets used for hedging	Financial services	8,062	100.0
Loans	Household loans	132,540,938	39.9
	Corporate loans		
	Financial services	23,746,610	7.2
	Manufacturing	51,273,420	15.5
	Construction	5,381,239	1.6
	Wholesale & retail	23,518,055	7.1
	Real estate rental	44,535,435	13.4
	Others	50,500,923	15.2
	Deferred loan fees and expenses	356,338	0.1
	Subtotal	331,852,958	100.0
Merchant banking account assets	Financial services	817,368	17.6
	Real estate rental	1,007,544	21.8
	Others	2,806,449	60.6
	Subtotal	4,631,361	100.0
Total		463,905,172	
Off balance sheet items			
Financial guarantee contracts	Financial services	45,120	10.1
	Manufacturing	219,522	49.0
	Construction	6,643	1.5
	Wholesale & retail	58,813	13.1

Classification	Industry	Amounts	Ratio (%)
	Real estate rental	1,014	0.2
	Others	116,612	26.1
	Subtotal	447,724	100.0
Payment guarantees	Household	353,026	1.7
	Financial services	2,232,794	10.8
	Manufacturing	11,165,598	54.1
	Construction	1,600,908	7.8
	Wholesale & retail	3,664,550	17.8
	Real estate rental	168,777	0.8
	Others	1,458,504	7.0
	Subtotal	20,644,157	100.0
Commitments	Household	28,780,642	28.4
	Corporate commitment		
	Financial services	10,972,913	10.8
	Manufacturing	29,530,082	29.1
	Construction	2,001,940	2.0
	Wholesale & retail	9,501,969	9.4
	Real estate rental	3,736,829	3.7
	Others	16,859,030	16.6
	Subtotal	101,383,405	100.0
Merchant banking account – Commitment	Financial services	310,000	50.0
	Manufacturing	50,000	8.1
	Wholesale & retail	110,000	17.7
	Real estate rental	100,000	16.1
	Others	50,000	8.1
	Subtotal	620,000	100.0
Total		123,095,286	

<December 31, 2021>

Classification	Industry	Amounts	Ratio (%)
On balance sheet items			
Due from banks	Financial services	25,670,055	100.0
Financial assets at FVTPL	Financial services	8,828,745	81.6
	Manufacturing	580,959	5.4
	Public administration	1,138,512	10.5
	Construction	8,829	0.1
	Wholesale & retail	56,576	0.5
	Others	208,608	1.9
	Subtotal	10,822,229	100.0
	Financial services	17,122,535	49.9

Classification	Industry	Amounts	Ratio (%)
Financial assets at FVOCI	Manufacturing	205,355	0.6
	Public administration	13,147,848	38.3
	Construction	320,173	0.9
	Wholesale & retail	123,332	0.4
	Others	3,403,535	9.9
	Subtotal	34,322,778	100.0
Securities at amortized cost	Financial services	9,595,238	42.7
	Manufacturing	71,370	0.4
	Public administration	7,160,783	31.8
	Construction	164,833	0.7
	Others	5,494,964	24.4
	Subtotal	22,487,188	100.0
Derivative assets used for hedging	Financial services	68,670	100.0
Loans	Household loans	133,201,671	42.9
	Corporate loans		
	Financial services	21,566,489	6.9
	Manufacturing	44,054,422	14.2
	Construction	3,659,682	1.2
	Wholesale & retail	21,339,225	6.9
	Real estate rental	42,863,699	13.8
	Others	43,547,093	14.0
	Deferred loan fees and expenses	378,995	0.1
	Subtotal	310,611,276	100.0
Merchant banking account assets	Financial services	668,878	14.1
	Manufacturing	49,827	1.1
	Wholesale & retail	119,976	2.5
	Real estate rental	1,208,226	25.5
	Others	2,695,032	56.8
	Subtotal	4,741,939	100.0
Total		408,724,135	
Off balance sheet items			
Financial guarantee contracts	Financial services	46,299	12.6
	Manufacturing	170,742	46.4
	Construction	4,083	1.1
	Wholesale & retail	48,765	13.2
	Real estate rental	1,778	0.5
	Others	96,375	26.2
	Subtotal	368,042	100.0
	Household	19,369	0.1
	Financial services	871,139	5.3

Classification	Industry	Amounts	Ratio (%)
Payment guarantees	Manufacturing	9,410,325	57.0
	Construction	1,602,680	9.7
	Wholesale & retail	3,264,298	19.8
	Real estate rental	149,210	0.9
	Others	1,185,687	7.2
	Subtotal	16,502,708	100.0
Commitments	Household	26,777,184	29.5
	Corporate commitment		
	Financial services	9,716,634	10.7
	Manufacturing	26,621,403	29.3
	Construction	2,229,649	2.5
	Wholesale & retail	8,182,614	9.0
	Real estate rental	3,326,788	3.7
	Others	13,964,661	15.3
	Subtotal	90,818,933	100.0
Merchant banking account – Commitment	Financial services	460,000	58.2
	Manufacturing	50,000	6.3
	Wholesale & retail	130,000	16.5
	Real estate rental	100,000	12.7
	Others	50,000	6.3
	Subtotal	790,000	100.0
Total		108,479,683	

8-3-8-2 Details of the Bank's corporate loans by industry affected by the spread of COVID-19 as of December 31, 2022 and 2021, are as follows.

The effect on the industries may vary significantly based on future economic conditions. Household loan debtors subject to measurement of lifetime ECL as disclosed in Note 8-3-7-1, may be impacted by the spread of COVID-19. The effect may vary significantly based on future economic conditions.

(Korean won in millions):

<December 31, 2022>

Industry	Financial assets at FVTPL	Financial assets at FVOCI	Loans	Off-balance-sheet items	Total
Air transportation	—	—	580,356	430,460	1,010,816
Lodging	863	—	2,994,626	154,459	3,149,948
Food	—	—	5,467,561	182,859	5,650,420
Automobile	68,475	9,515	6,409,319	5,106,494	11,593,803
Petroleum refining	1,380	9,268	1,497,568	2,585,076	4,093,292
Travel	200	—	101,466	38,203	139,869
Total	70,918	18,783	17,050,896	8,497,551	25,638,148

<December 31, 2021>

Industry	Financial assets at FVTPL	Financial assets at FVOCI	Loans	Off-balance-sheet items	Total
Air transportation	1,945	—	559,030	279,853	840,828
Lodging	3,080	—	3,029,192	177,187	3,209,459
Food	33	—	5,050,157	179,597	5,229,787
Automobile	3,454	9,849	6,148,826	5,026,484	11,188,613
Petroleum refining	482	9,728	704,732	2,375,842	3,090,784
Travel	200	—	109,169	25,410	134,779
Total	9,194	19,577	15,601,106	8,064,373	23,694,250

8-3-8-3 Credit risk concentration in each major country as of December 31, 2022 and 2021 is as follows (Korean won in millions):

<December 31, 2022>

Classification	Country	Amounts	Ratio (%)
On balance sheet items			
Due from banks	Korea	25,196,900	64.3
	China	1,200,457	3.1
	United States	7,348,690	18.8
	Japan	872,357	2.2
	Singapore	27,443	0.1
	Hong Kong	87,291	0.2
	Others	4,450,747	11.3
	Subtotal	39,183,885	100.0
Financial assets at FVTPL	Korea	15,584,056	84.6
	China	666,650	3.6
	United States	70,691	0.4
	Japan	570	0.0
	Hong Kong	59,826	0.3
	Others	2,030,734	11.1
	Subtotal	18,412,527	100.0
Financial assets at FVOCI	Korea	27,628,411	85.9
	China	1,977,918	6.2
	United States	617,790	1.9
	Hong Kong	46,266	0.1
	Others	1,879,691	5.9
	Subtotal	32,150,076	100.0
Securities at amortized cost	Korea	35,125,996	93.3
	China	128,242	0.3
	United States	5,958	0.0
	Others	2,406,107	6.4
	Subtotal	37,666,303	100.0
Derivative assets used for hedging	Korea	8,062	100.0
	Korea	301,245,204	90.8
	China	6,047,574	1.8
	United States	4,638,052	1.4

Classification	Country	Amounts	Ratio (%)
Loans	Japan	1,855,875	0.6
	Hong Kong	2,536,360	0.8
	Others	15,173,555	4.5
	Deferred loan fees and expenses	356,338	0.1
	Subtotal	331,852,958	100.0
Merchant banking account assets	Korea	4,631,361	100.0
Total		463,905,172	
Off balance sheet items			
Financial guarantee contracts	Korea	447,724	100.0
Payment guarantees	Korea	15,270,693	74.0
	China	1,831,845	8.9
	United States	213,716	1.0
	Japan	23,331	0.1
	Others	3,304,572	16.0
	Subtotal	20,644,157	100.0
Commitments	Korea	96,532,123	95.2
	China	782,903	0.8
	United States	652,870	0.6
	Japan	199,854	0.2
	Others	3,215,655	3.2
	Subtotal	101,383,405	100.0
Merchant banking account –commitment	Korea	620,000	100.0
Total		123,095,286	

<December 31, 2021>

Classification	Country	Amounts	Ratio (%)
On balance sheet items			
Due from banks	Korea	18,763,463	73.1
	China	1,075,075	4.2
	United States	593,570	2.3
	Japan	1,727,822	6.7
	Singapore	39,474	0.2
	Hong Kong	58,383	0.2
	Others	3,412,268	13.3
	Subtotal	25,670,055	100.0

Classification	Country	Amounts	Ratio (%)
Financial assets at FVTPL	Korea	9,748,677	90.1
	China	1,967	0.0
	United States	3,941	0.0
	Japan	32,325	0.3
	Hong Kong	8,548	0.1
	Others	1,026,771	9.5
	Subtotal	10,822,229	100.0
Financial assets at FVOCI	Korea	29,406,615	85.7
	China	2,195,189	6.4
	United States	360,650	1.1
	Japan	13,460	0.0
	Hong Kong	69,187	0.2
	Others	2,277,677	6.6
	Subtotal	34,322,778	100.0
Securities at amortized cost	Korea	20,362,979	90.6
	China	131,144	0.6
	United States	497,558	2.2
	Others	1,495,507	6.6
	Subtotal	22,487,188	100.0
Derivative assets used for hedging	Korea	12,112	17.6
	Hong Kong	2,177	3.2
	Others	54,381	79.2
	Subtotal	68,670	100.0
Loans	Korea	283,213,387	91.2
	China	6,069,569	2.0
	United States	3,980,410	1.3
	Japan	1,840,661	0.6
	Hong Kong	2,339,276	0.8
	Others	12,788,978	4.0
	Deferred loan fees and expenses	378,995	0.1
	Subtotal	310,611,276	100.0
Merchant banking account assets	Korea	4,741,939	100.0
Total		408,724,135	
Off balance sheet items			
Financial guarantee contracts	Korea	368,042	100.0
	Korea	13,187,883	79.9

Classification	Country	Amounts	Ratio (%)
Payment guarantees	China	1,822,912	11.0
	United States	26,714	0.2
	Japan	29,602	0.2
	Others	1,435,597	8.7
	Subtotal	16,502,708	100.0
Commitments	Korea	86,794,414	95.6
	China	622,891	0.7
	United States	272,565	0.3
	Japan	272,926	0.3
	Others	2,856,137	3.1
	Subtotal	90,818,933	100.0
Merchant banking account –commitment	Korea	790,000	100.0
Total		108,479,633	

8-4 Liquidity risk

The Group defines liquidity risk as the possibility of incurring losses due to a temporary shortage in funds caused by a maturity mismatch or an unexpected capital outlay leading to rise in interest, or sale of assets at a price below normal price.

8-4-1 Measurement of liquidity risk

The Group maintains a limit management indicator to measure the liquidity coverage ratio, liquidity ratio in foreign currency, net stable funding ratio, foreign currency maturity mismatch ratio, and long-term access to financing ratio in foreign currency in accordance with the guidelines and standards of the Financial Supervisory Service. In addition, the Group maintains a monitoring indicator to measure unbalance of funding, etc., to manage the liquidity risk, and manages early warning indicators in order to identify worsening trends in early stage to respond in a timely manner.

8-4-2 Management of liquidity risk

At an early stage, the Group identifies factors affecting liquidity in order to manage liquidity risks and has achieved an adequate level of liquidity via performing a systematic management.

The Group has the following basic principles for liquidity risk management:

- a. Set and comply with liquidity risk limits, and coordinate and manage early warning indicator to identify liquidity risk at early stage.
- b. Regularly execute an analysis of stress tests and prepare an emergency procurement plan in case of liquidity.
- c. Focus on maintaining a diversified portfolio in order to avoid excessive concentrations of risks.
- d. Evaluate and manage the effect of a large amount of money which is loaned out, invested, or procured on liquidity risks.

In order to manage liquidity risk, the Group builds internal control systems for each department. In order to comply with liquidity ratios and the maturity mismatch ratio set by the Financial Supervisory Service, the Comprehensive Risk Management department conducts daily monitoring. Liquidity risk status is reported to the Risk Management Operation Committee on a monthly basis and to the Risk Management Committee on a quarterly basis.

In order to maintain the liquidity risk management indicators to stay within the acceptable limits, the Treasury Department recommends the necessary measures in relation to the procurement and operation of the assets and liabilities traded in the capital market. In addition, stages of emergency planning have been established in order to respond to liquidity emergencies. The Planning and Management Department has established a portfolio management strategy based on the internal and external liquidity risk management requirements and on the outlook of the procurement and operating markets.

8-4-3 Analysis of contract maturity

8-4-3-1 Analysis criteria

The details of the remaining contractual maturities of financial liabilities are analyzed by the earliest maturity date when the Group would be required to pay, based on the undiscounted cash outflows of the Group's financial liabilities.

In addition, financial liabilities at FVTPL and depository liabilities (payment on demand) are shown at fair value in the immediate payment column. All derivatives used for hedging are presented based on the net cash flows as all products are paid in the net amount. A contract maturity exists in payment guarantees that correspond to financial guarantees such as bond issuance and loan security provided by the Group, loan commitment and other credit granting. However, payment must be made immediately once the counterparty requests payment. As such they are included in the immediate payment column.

8-4-3-2 The remaining contractual maturities of financial liabilities and off-balance-sheet items

The remaining contractual maturities of financial liabilities and off-balance sheet items as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	On demand	Less than 1 month	1~3 months	3 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
On-balance sheet items:							
Financial liabilities							
Financial liabilities at FVTPL	11,059,332	-	-	-	-	272,236	11,331,568
Deposits	155,430,882	34,916,185	42,648,480	115,044,070	16,453,108	1,473,256	365,965,981
Borrowings	4,025,607	6,361,471	3,143,744	4,393,807	4,053,189	518,789	22,496,607
Debentures	139	960,000	2,835,568	10,712,756	9,535,633	2,579,021	26,623,117
Derivative liabilities used for hedging instruments	-	9,543	1,709	33,127	63,048	(20,827)	86,600
Other financial liabilities	9,838,792	16,447,155	1,524	22,964	38,264	1,811	26,350,510
Merchant banking account liabilities	1,122,469	2,544,804	-	-	-	-	3,667,273
Total	181,477,221	61,239,158	48,631,025	130,206,724	30,143,242	4,824,286	456,521,656
Off-balance sheet items:							
Finance guarantee contracts	447,724	-	-	-	-	-	447,724
Payment guarantee	20,644,157	-	-	-	-	-	20,644,157
Commitment	101,383,405	-	-	-	-	-	101,383,405

Classification	On demand	Less than 1 month	1~3 months	3 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
Merchant banking account – commitment	620,000	–	–	–	–	–	620,000
Total	123,095,286	–	–	–	–	–	123,095,286

<December 31, 2021>

Classification	On demand	Less than 1 month	1~3 months	3 months ~ 1 year	1 year ~ 5 years	More than 5 years	Total
On-balance sheet items:							
Financial liabilities							
Financial liabilities at FVTPL	3,992,508	–	–	–	–	272,236	4,264,744
Deposits	165,533,923	20,700,790	33,296,656	91,983,758	9,541,542	2,063,196	323,119,865
Borrowings	3,653,917	6,090,821	1,434,291	3,334,225	2,585,329	449,091	17,547,674
Debentures	12,741	1,287,866	1,500,000	9,556,473	12,471,814	3,178,252	28,007,146
Derivative liabilities used for hedging instruments	–	351	956	3,603	29,867	(89,540)	(54,763)
Other financial liabilities	6,531,978	17,730,235	2,095	41,785	18,030	985	24,325,108
Merchant banking account liabilities	895,438	2,012,842	–	–	–	–	2,908,280
Total	180,620,505	47,822,905	36,233,998	104,919,844	24,646,582	5,874,220	400,118,054
Off-balance sheet items:							
Finance guarantee contracts	368,042	–	–	–	–	–	368,042
Payment guarantee	16,502,708	–	–	–	–	–	16,502,708
Commitment	90,818,933	–	–	–	–	–	90,818,933
Merchant banking account – commitment	790,000	–	–	–	–	–	790,000
Total	108,479,683	–	–	–	–	–	108,479,683

Assets available for use to execute unused loan commitments after redeeming all financial liabilities are cash and bank deposits, debt securities, equity securities, and loans. In addition, the Group is able to cope with unexpected cash outflows through the sale of securities and the additional sources of funding such as asset backed securitization.

8-5 Market risk

Market risk is risk incurred in asset and liabilities subject to management based on the changes in market prices such as interest rate, stocks and foreign exchange, etc.

8-5-1 Market risk management

The purpose of market risk management is to manage the loss of assets and liabilities incurred due to changes in market variables such as interest rates, foreign exchanges and equity prices to remain within the allowable limits in order to ensure the profitability and stability.

8-5-2 Market risk management targets

Market risk management targets include marketable securities, foreign currency net positions, derivatives and other assets and liabilities with embedded market risks. The Group classifies exposures to market risk into either trading or non-trading positions and manages each of those portfolios separately.

8-5-3 Management of market risk related to trading position

8-5-3-1 Trading position classification

The trading position includes interest rate positions, equity price positions, commodity, positions, and all foreign exchange positions:

- a. Financial instruments for the purpose of acquiring the profit incurred due to short-term trading or short-term price fluctuations.
- b. Financial instruments for the purpose of hedging risks.
- c. Financial instruments for the purpose of acquiring arbitrages.
- d. Financial instruments for the purpose of acquisition, mediation and market creation.
- e. Derivatives which are not applied to fair value hedge accounting under K-IFRS.
- f. All foreign exchange and gold positions in accordance with *Detailed Regulations on Supervision of Banking Business Appendix 3-2*.

8-5-3-2 Management of the trading position limits

The Risk Management Committee divides capital, annual loss, exposure and

Value at Risk (VaR) limit in relation to market risks of the trading position by business unit (division) annually. Within the given limit, the Risk Management Operation Committee further subdivides the limits by business units (divisions) and desks. The Risk Management Group provides information necessary for deliberation and review by the Committee, reports trading limits and measures risks. The Middle Office performs mark-to-market measures, monitors trade violations and compliance with the limits.

The Middle Office establishes and complies with trading policy regulations, measures market risk for trading positions, and checks daily compliance within the acceptable limits for each risk. The office also conducts daily inspections of changes in the management exposure, compliance with the limit, post verification, and crisis analysis, and reports the results to the management team every day.

8-5-3-3 Value at Risk

Value at Risk (VaR) is a method that manages and measures the degree of market risks of the trading position subject to exposure. VaR is a method of calculating the potential losses, where the adverse market fluctuation affects the current portfolio during the holding period under a set of confidence level.

The Group calculates the VaR by applying Historical Simulation Method for 10 days in the 99% confidence level. Furthermore, the stress test is performed to measure the size of the loss in order to account for the method's limited use in extreme cases.

8-5-3-4 Back test

Back-testing is performed daily to secure the appropriateness of VaR model. When back-testing is performed, the Group compares the daily profits and losses with VaR of the previous day, examines the excess and reports the result of subsequent examinations separately to the director of the Risk Management Group. If any excess exists, the Group analyses the result of subsequent examination and reports to the Financial Supervisory Service and management.

8-5-3-5 Details of market risk VaR

Details of market risk 10 Day VaR (including 10-Day Stressed VaR) by risk type as of December 31, 2022 and 2021 are summarized as follows

(Korean won in millions):

Classification	December 31, 2022	Average	Minimum	Maximum	December 31, 2021
Interest rates risk	56,845	42,105	19,665	127,062	31,506
Foreign exchange rates risk	424,728	340,097	286,400	441,244	363,066
Stock price risk	1,118	6,149	661	13,869	11,194
Option risk	1,804	2,319	1,305	3,308	2,278
Total risk (*)	442,757	347,830	295,620	456,868	356,249

(*) The calculation of the total risk VaR takes into consideration the correlation and diversification effects between each risk factor and therefore, it is not the same as the total of VaRs.

8-5-4 Management of market risk related to non-trading position

8-5-4-1 Interest rate risk

Interest rate risk of non-trading position is a risk of losses in financial assets and liabilities with interest rates due to adverse changes in interest rates and is incurred when maturity structure does not match interest rate setting cycle of the related assets and liabilities. The Group manages the interest rate risks of non-trading position in order to maintain the stability of net interest income and net asset value based on changes in interest rates. The following is subject to the Group's management of interest rate risk:

- Financial assets with interest rates such as bank deposits, debt securities, and loans.
- Financial liabilities with interest rates, such as depository liabilities, borrowings, and debentures.
- Financial derivatives such as interest rate swaps.

Interest rate risk is calculated using the gap between interest-sensitive assets and liabilities. The interest rate risks measure the interest rate gap ratio as a

primary indicator; Δ EVE, Δ NII ratio and duration are used as secondary indicators. The Risk Management Committee and Risk Management Operation Committee establish the interest risk limits on an annual basis; the compliance thereof is reported to Risk Management Operation Committee as well as the Risk Management Committee on a monthly and quarterly basis, respectively.

Economic Value of Equity (Δ EVE) refers to changes in the economic value of equity capital, indicating the effect of adverse changes in interest rates on the present value of assets, liabilities and others. As of December 31, 2022 and 2021, the Group's Δ EVE is as follows (Korean won in millions):

Classification	December 31, 2022	Average	Min	Max	December 31, 2021
Δ EVE	2,106,981	1,478,804	1,081,494	2,168,761	1,008,935

Δ EVE calculates the maximum value compared to the default scenario by applying six interest rates (parallel rise, parallel fall, short-term fall, Long-term rise, short-term rise Long-term fall, short-term rise and short-term fall) after generating cash flows for the interest-sensitive assets and liabilities under the Banking Supervision Execution Schedule 9-1.

The Group is closely monitoring the output and market of various industry working groups that manage the transition to new interest rate indicators, including those announced by London Interbank Offered Rate ("LIBOR") regulators. A fundamental shift in interest rate indicators (hereinafter, 'interest rate indicator reform') is taking place around the world, and certain interbank lending rates (hereinafter 'IBORs') are being replaced by new risk-free interest rates. In particular, LIBOR, with the exception of overnight, 1-month, 3-month, 6-month, and 12-month USD LIBOR, all of the calculations were stopped as of December 31, 2021. 5-month USD LIBOR which was mentioned earlier will also be discontinued as of June 30, 2023.

In response to these changes, the Group selected the head of the finance market

as an executive officer, and established a plan for LIBOR conversion, which consists of workflows such as determination of alternative interest rates by affiliated TF, computer development, employee and customer communication management, risk management, tax, finance, legal, and accounting system establishment, etc. Progress according to the plan is reported to the Risk Management Committee on a regular basis and will be reported to the Board of Directors if necessary. The objective of the plan is to understand where exposure to LIBOR is occurring within the business, and to prepare and implement an action plan to facilitate the transition to alternative interest rate indicator. To manage the risks posed by such interest rate indicator reform, the Group manages and supervises interest rate indicator reform by evaluating the extent to which a contract references IBOR cash flows, whether these contracts need to be modified as a result of interest rate indicator reform, and how to manage communication with counterparties on interest rate indicator reform.

8-5-4-1-1 Details of the financial instruments that have not been converted to an alternative indicator interest rate as of December 31, 2022, are as follows.
(Korean won in millions):

Classification	Non-derivative financial assets(*1)			Non-derivative financial liabilities(*1)	Derivatives(*2)	Commitments and Finance guarantee contracts (*2)
	Financial assets measured at FVOCI	Financial assets measured at amortized costs	Total	Financial liabilities measured at amortized costs		
USD LIBOR(*3)	32,245	5,236,730	5,268,975	1,393,822	61,721,472	40,438

(*1) The amount of non-derivative financial instruments is based on the book value.

(*2) The amounts of derivatives and commitments and finance guarantee are based on the nominal amounts.

(*3) For financial instruments related to USD-LIBOR, those with maturities before June 30, 2023 are excluded.

8-5-4-2 Equity price risk

Equity price risk is a risk incurred when the fair value of equities results in changes in the level of related revenue and capital. Fluctuation in equity reflects the sensitivity of each equity. Effects on capital due to the fluctuation in equity price risk as of December 31, 2022 are as follows (Korean won in millions):

Classification	20% decline	10% decline	10% rise	20% rise
Equity price risk	(80,370)	(40,185)	40,185	80,370

8-5-5 Currency risk concentration

Currency risk is a risk incurred when the value of a financial instrument or future cash flows fluctuates due to the changes in foreign exchange rates. Currency risk arises from the financial instruments expressed in currencies other than the functional currency. Currency risk does not arise from the financial instruments expressed in the functional currency or in non-monetary items. In order to establish the stop loss and limits, the Group manages the foreign exchange net exposure amount of the trading and non-trading positions by each currency.

Significant foreign currency assets and liabilities denominated in Korean won as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	USD	JPY	EUR	CNY	IDR	Others	Total
Assets							
Cash and due from bank	18,976,739	1,328,010	1,088,487	1,054,512	313,483	1,027,003	23,788,234
Financial assets at FVTPL	286,849	1,088	20,155	13,530	10,254	108,052	439,928
Financial assets at FVOCI	2,098,897	–	–	1,965,233	295,867	1,292,404	5,652,401
Securities at amortized cost	1,803,278	–	150,933	58,488	160,655	1,644,945	3,818,299
Loans	25,880,111	1,751,839	4,462,084	6,870,991	1,439,045	4,834,913	45,238,983
Others	3,251,413	166,333	340,695	333,508	49,281	433,891	4,575,121
Total	52,297,287	3,247,270	6,062,354	10,296,262	2,268,585	9,341,208	83,512,966
Liabilities							
Financial liabilities at FVTPL	250,577	4,653	20,461	17,168	–	109,451	402,310
Deposits	42,320,051	2,790,262	5,075,467	8,667,227	1,390,599	4,948,110	65,191,716
Borrowings	9,020,224	136,405	923,417	381,299	43,523	993,865	11,498,733

Classification	USD	JPY	EUR	CNY	IDR	Others	Total
Debentures	4,673,935	–	605,055	336,151	19,709	239,892	5,874,742
Derivative liabilities used for hedging	226,919	–	–	–	–	–	226,919
Others	5,527,525	190,884	673,383	501,354	38,205	304,711	7,236,062
Total	62,019,231	3,122,204	7,297,783	9,903,199	1,492,036	6,596,029	90,430,482

<December 31, 2021>

Classification	USD	JPY	EUR	CNY	IDR	Others	Total
Assets							
Cash and due from bank	8,817,426	1,916,714	441,143	751,699	206,960	943,380	13,077,322
Financial assets at FVTPL	115,497	1,476	5,865	1,999	122,071	22,151	269,059
Financial assets at FVOCI	2,323,006	–	–	2,183,286	282,334	1,430,360	6,218,986
Securities at amortized cost	1,547,755	–	90,376	119,932	199,405	1,195,406	3,152,874
Loans	23,673,488	1,906,806	3,845,868	6,853,211	1,449,769	3,904,500	41,633,642
Derivative assets used for hedging	49,388	–	–	–	–	–	49,388
Others	3,700,457	227,785	443,338	137,470	49,171	414,210	4,972,431
Total	40,227,017	4,052,781	4,826,590	10,047,597	2,309,710	7,910,007	69,373,702
Liabilities							
Financial liabilities at FVTPL	66,400	13	3,334	2,358	1,252	9,022	82,379
Deposits	31,218,821	2,336,792	4,067,928	7,694,570	1,397,598	4,888,044	51,603,753
Borrowings	5,165,212	128,189	1,170,876	435,611	3,882	709,508	7,613,278
Debentures	4,743,281	–	660,527	340,786	20,213	231,796	5,996,603
Derivative liabilities used for hedging	22,764	–	–	–	–	–	22,764
Others	4,985,848	503,140	1,169,409	232,058	18,638	341,772	7,250,865
Total	46,202,326	2,968,134	7,072,074	8,705,383	1,441,583	6,180,142	72,569,642

8-6 Operating risk

Operational risk is the risk of loss arising from system failure, human error, fraud or other external events. Risks related to legal or regulatory implications are identified as operational risks, but risks related to the strategy of damaging reputation are excluded from operational risks. Operational risk includes losses from internal operational problems and externalities, such as natural disasters, etc., and legal lawsuit, but excludes losses from policy decision errors or unmeasurable reputation damage, etc. Operational risk does not have a direct correlation with income and the Group needs to mitigate such risk through internal controls and insurance.

The Group calculates the operational risk capital on a consolidated basis.

The Group uses the Advanced Measurement Approach (AMA) and the subsidiary uses the basic indicator to manage total capital. Length of the period in which the AMA is in use is one year with a 99.9% confidence level. The Group uses the loss distribution approach to measure nine different business units and seven operational risk event types. In addition, the Group combines the loss distribution of the internal and external data on losses with results of the scenario analysis to calculate the amount of capital and takes into account business environment and changes in the controls in order to adjust the amount of capital. The Group uses the basic indicator by applying specific coefficient to the average profit of three years.

The Risk Management Committee determines the operational risk limits. In case the excess limit is expected, the management plan for the excess of internal capital limits should be reported to the Risk Management Operation Committee, and if additional limits are given, an approval from the Risk Management Committee is needed beforehand. If under exceptional case where the limit is exceeded, an ex post facto approval from the Risk Management Committee is needed for the information on exceeded amount, post hoc results, as well as the subsequent plans.

8-7 Capital management

The Group implements the BIS capital requirement system in order to secure the capital adequacy and comply with the supervisory regulations. By BIS (Bank for International Settlements) regulation, the Group keeps its BIS capital adequacy ratio (hereinafter BIS ratio) above the minimum BIS ratio for risk-weighted assets. In addition, the Group performs a capital adequacy assessment in order to cope with an unexpected loss.

Risk-weighted assets which are calculated per each risk type when calculating BIS ratio are as follows:

- a. Risk-weighted assets of credit risk are calculated using the Basic Internal Ratings-Based Approach (IRB). The Group uses the Standardized Approach (SA) for governments, banks, public institutes, overseas exposure, other assets, etc.
- b. The risk-weighted assets of the market risk are calculated by multiplying 12.5 to the amount of capital required by adding individual risks calculated by the standard model to the general risk calculated by the internal model.
- c. Risk-weighted assets of the operational risk are calculated by multiplying 12.5 to the amount of operational risk capital calculated by Advanced Measurement Approach (AMA) for the Bank and Basic Indicator Approach (BIA) for its subsidiaries.

Regulatory capital in accordance with the Regulations on the Supervision of Banking Business for calculating BIS ratio is as follows:

- a. Common equity: Capital incurred in connection with common stock issued to meet the eligible requirement, capital surplus and capital adjustments, retained earnings, accumulated other comprehensive income and other capital surplus, capital adjustments, non controlling interest on common shares issued by banks, affiliated subsidiaries, etc.
- b. Other basic capital: The capital securities to meet accreditation requirements of other basic capital, capital surplus associated with the issuance of the other basic capital, non-qualifying capital securities and the accredited amount as other basic capital of a non-controlling interest on equity securities issued by a subsidiary, etc.
- c. Supplementary capital: The capital securities to meet supplementary capital accreditation requirements, capital surplus associated with the issuance of supplementary capital, the accredited amount of supplementary capital of non-qualifying capital securities, the accredited amount as supplementary capital of a non-controlling interest on equity securities issued by a subsidiary, eligible allowance for possible loan losses on "normal" or "precautionary" category assets, allowance for possible loan losses in excess of the total amount of expected losses, etc.

Regulatory capital and BIS ratios as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Common equity		
Capital stock, capital surplus and capital adjustments incurred in connection with common stock issued that meets eligible requirements	5,359,508	5,359,508
Retained earnings	19,236,315	13,897,317
Accumulated other comprehensive income and other capital surplus, capital adjustments	4,556,672	8,699,684
Non-controlling interest on common shares issued by a bank, a consolidated subsidiary	67,750	66,234
Deduction	(1,343,267)	(1,105,748)
Subtotal	27,876,978	26,916,995
Other basic capital		
Equity securities satisfying the criteria of other basic capital	355,740	355,740
Amount accredited as supplementary capital of non-qualifying capital securities	–	42,750
Amount accredited as other basic capital of a non-controlling interest on equity securities issued by a subsidiary	14,518	14,193
Subtotal	370,258	412,683
Supplementary capital		
Equity securities satisfying the criteria of supplementary capital	2,993,076	3,029,520
Amount accredited as supplementary capital of non-qualifying capital securities	–	197,420
Amount accredited as supplementary capital of a non-controlling interest on equity securities issued by a subsidiary	19,358	20,064
Allowance for possible loan losses on assets categorized as "normal" or "precautionary"	273,899	236,047
Allowance for qualified bad debt exceeding the estimated total loss, etc.	136,038	–
Subtotal	3,422,371	3,483,051
Total	31,669,607	30,812,729
Risk-weighted assets		
Credit risk-weighted assets (*)	154,742,641	143,139,525
Operational risk-weighted assets	18,539,555	19,712,497
Market risk-weighted assets	17,119,721	15,881,479
Total	190,401,917	178,733,501
BIS capital ratio		
Total capital ratio	16.63%	17.24%
Common equity ratio	14.64%	15.06%
Basic capital ratio	14.84%	15.29%
Supplementary capital ratio	1.80%	1.95%

(*) The equity below the lowest limit is presented in credit risk weighted assets.

8-7-1 Internal capital adequacy assessment and management

Internal capital is the amount which allows for continuous operation of business while accounting for all risks. Internal capital is defined as the size of capital needed to cope with unexpected loss under a certain rate. The purpose of managing the internal capital is to compare the size of internal capital and available capital (Tier 1) and to serve as a measure of financial strength. Managing the internal capital also provides the amount of risk-adjusted capital and basic measurement. The indicators are composed of the risk appetite ratio as well as exhaustion ratio of foreign holding limits. The risk appetite ratio is an internal capital ratio established after taking into consideration a capital buffer in Tier 1 capital. The exhaustion ratio of foreign holding limits is a ratio used to measure the amount of internal capital used against the internal capital limits.

Internal capital limits are established after accounting for the size of current and subsequent Tier 1 capital as well as the components, quality, risk appetite, target credit rating, operational strategy and business plans. The Risk Committee determines risk types and the internal capital limits for the Group more than once a year. In the case where new operations or the expansion of operations result in the amount exceeding the internal capital limits, an approval from the Risk Committee is needed beforehand. If such a situation occurs in cases outlined as exceptions, an approval from the Risk Committee is needed for the information on exceeded amount, post hoc results, as well as the subsequent plans.

9. Operating segment information

9-1 General information

In order to set strategies to achieve goal and efficiently conduct performance assessment, the business sectors of the Group are divided by the operations as follows:

- Operating bank segment: It consists of two banks (Center (excluding Chungcheong) and Chungcheong). It offers household loan and deposit, retirement pension, company loan, deposit, etc.
- Capital market segment: This segmentation offers investment and operation of securities, buying and selling of public bonds, development and operation of derivatives.
- Other segment: It consists of the overseas business segment, headquarter supporting segment, trust segment, risk segment, audit segment and after-management segment.

9-2 Profit or loss by operating segment

9-2-1 Details of net income by operating segments for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Operating group segments		Finance sector and other sectors	Subtotal	Adjustments	Total
	Center (excluding Chungcheong)	Chungcheong				
Net interest income	6,640,213	723,768	254,246	7,618,227	(9,550)	7,608,677
Interest income	15,999,130	1,666,734	(4,289,059)	13,376,805	(29,574)	13,347,231
Interest expenses	(9,358,917)	(942,966)	4,543,305	(5,758,578)	20,024	(5,738,554)
Net fees and commission income	712,061	56,595	149,665	918,321	(324,709)	593,612
Net other operating profit (loss)	(2,250,918)	(284,247)	(2,365,215)	(4,900,380)	869,577	(4,030,803)
Net segment profit (loss)	5,101,356	496,116	(1,961,304)	3,636,168	535,318	4,171,486
Income tax expenses (benefit)	1,402,873	136,432	(530,983)	1,008,322	51,465	1,059,787
Net segment income (loss)	3,698,483	359,684	(1,430,321)	2,627,846	483,853	3,111,699

<2021>

Classification	Operating group segments		Finance sector and other sectors	Subtotal	Adjustments	Total
	Center (excluding Chungcheong)	Chungcheong				
Net interest income	4,334,984	454,483	1,372,235	6,161,702	(11,105)	6,150,597
Interest income	9,243,184	967,732	(1,416,287)	8,794,629	(7,965)	8,786,664
Interest expenses	(4,908,200)	(513,249)	2,788,522	(2,632,927)	(3,140)	(2,636,067)
Net fees and commission income	690,793	53,710	114,196	858,699	(305,905)	552,794
Net other operating profit (loss)	(2,129,703)	(259,100)	(1,873,123)	(4,261,926)	1,037,009	(3,224,917)
Net segment profit (loss)	2,896,074	249,093	(386,692)	2,758,475	719,999	3,478,474
Income tax expenses (benefit)	796,420	68,501	(105,790)	759,131	143,597	902,728
Net segment income (loss)	2,099,654	180,592	(280,902)	1,999,344	576,402	2,575,746

Operating segment information was rewritten due to changes in the organizational structure for the year ended December 31, 2022.

9-2-2 Revenue from external customers in each operating sector for the years ended December 31, 2022 and 2021 is as follows (Korean won in millions):

<2022>

Classification	Operating group segments		Finance sector and other sectors	Subtotal	Adjustments	Total
	Center (excluding Chungcheong)	Chungcheong				
Revenue or loss from external customers	6,752,514	686,539	731,761	8,170,814	(127,731)	8,043,083

<2021>

Classification	Operating group segments		Finance sector and other sectors	Subtotal	Adjustments	Total
	Center (excluding Chungcheong)	Chungcheong				
Revenue or loss from external customers	4,579,488	440,099	1,645,263	6,664,850	(30,010)	6,634,840

Operating segment information was rewritten due to changes in the organizational structure for the year ended December 31, 2022.

9-2-3 Significant non-cash transactions included in income of operating segments for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Operating group segments		Finance sector and other sectors	Subtotal	Adjustments	Total
	Center (excluding Chungcheong)	Chungcheong				
Earnings from equity method investments	—	—	189,013	189,013	—	189,013
Depreciation and amortization	(146,176)	(9,791)	(281,460)	(437,427)	(645)	(438,072)
Total	(146,176)	(9,791)	(92,447)	(248,414)	(645)	(249,059)

<2021>

Classification	Operating group segments		Finance sector and other sectors	Subtotal	Adjustments	Total
	Center (excluding Chungcheong)	Chungcheong				
Earnings from equity method investments	—	—	127,672	127,672	—	127,672
Depreciation and amortization	(140,972)	(9,349)	(274,959)	(425,280)	(1,146)	(426,426)
Total	(140,972)	(9,349)	(147,287)	(297,608)	(1,146)	(298,754)

Operating segment information has been restated according to changes in the organizational structure during this year.

9-3 Information about geographic region

Gain and loss by geographic region from the external customers for the years ended December 31, 2022 and 2021 and non-current assets by geographic region as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	Gain and Loss from external customers(*1)		Non-current assets(*2)	
	2022	2021	December 31, 2022	December 31, 2021
Domestic	7,160,295	5,864,036	3,278,506	2,968,061
Foreign				
Hong Kong	73,208	63,991	5,320	3,997
Singapore	60,878	47,155	1,943	1,563
United States	85,888	64,664	29,170	6,872
Japan	36,579	29,158	3,486	3,894
China	247,818	242,903	62,936	63,523
Indonesia	182,806	134,433	57,301	66,195
United Kingdom	6,537	5,975	2,601	2,626
Canada	49,635	31,952	11,274	10,809
Others	267,168	180,583	19,263	18,324
Subtotal	1,010,517	800,814	193,294	177,803
Adjustments	(127,729)	(30,010)	5,263	5,837
Total	8,043,083	6,634,840	3,477,063	3,151,701

(*1) Gain and loss from external customers is divided into categories of domestic and overseas based on the locations of operating branches.

(*2) Non-current assets consist of property and equipment, investment property, intangible asset and right-of-use assets and are divided into categories of domestic and overseas based on the location of assets.

10. Cash and due from banks

10-1 Cash and due from banks as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	Counterparty	December 31, 2022	December 31, 2021
Cash		1,903,972	2,023,877
Due from banks in Korean won			
Reserve deposits	Bank of Korea ("BOK")	15,928,268	13,014,317
Time deposits	Other banks	8,309	32,448
Other deposits	Other financial institutions	14,313	749
Subtotal		15,950,890	13,047,514
Due from banks in foreign currencies			
Due from other branches	BOK and other banks	11,590,380	7,814,895
Time deposits	IOCI and other banks	1,147,224	971,559
Other deposits	Other financial institutions	10,495,391	3,836,087
Subtotal		23,232,995	12,622,541
Total		41,087,857	27,693,932

10-2 Restricted balances in cash and due from banks as of December 31, 2022 and 2021 are summarized as follows (Korean won in millions):

Classification		December 31, 2022	December 31, 2021	Restriction
Due from banks in Korean won	Reserve deposits, etc.	15,928,268	13,014,317	Required under the <i>Banking Act</i> and other related regulations.
	Collective fund for Korea Stock Exchange	500	500	Pledge creation, etc.
	Subtotal	15,928,768	13,014,817	
Due from banks in foreign currencies	Due from other branches	9,596,192	5,883,929	Reserve deposits required under the <i>Banking Act</i> and other related regulations.
	Due from others	9,708,393	3,512,482	Deposits received for guarantees as margin for derivatives, etc.
	Subtotal	19,304,585	9,396,411	
Total		35,233,353	22,411,228	

11. Financial assets at FVTPL

11-1 Financial assets mandatorily measured at FVTPL as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Stocks	63,560	116,991
Government and public bonds	2,068,958	1,030,607
Financial bonds	563,364	428,518
Corporate bonds	912,624	914,785
Beneficiary certificates	2,733,298	2,291,667
Securities denominated in foreign currencies	1,786,106	1,498,313
Derivative assets held for trading	9,851,754	4,101,349
Other securities (investment, etc.)	468,357	365,459
Private convertible bonds	7,394	170,873
Total	18,455,415	10,918,562

11-2 As of December 31, 2022 and 2021, the Group does not hold any financial assets designated as at FVTPL.

12. Financial assets at FVOCI

12-1 As of December 31, 2022 and 2021, financial assets at FVOCI are as follows (Korean won in millions):

Classification	Counterparty	Fair value (Book value)	
		December 31, 2022	December 31, 2021
Stocks	Daewoo Shipbuilding & Marine Engineering Co., Ltd., etc.	714,863	801,357
Investments in partnership	Impact Finance Korea	105	130
Government and public bonds	Treasury bonds	7,264,139	7,116,345
	Housing bonds	2,383,681	2,391,403

Classification	Counterparty	Fair value (Book value)	
		December 31, 2022	December 31, 2021
	Other local bonds	226,842	274,858
	Subtotal	9,874,662	9,782,606
Finance bonds	Monetary stabilization securities	3,087,556	5,592,002
	Deposit bank bonds	1,128,701	1,243,143
	Small- and medium-sized business banking bonds	1,904,983	1,899,393
	Industrial financial bonds	3,423,699	3,016,231
	Export-import credit bonds	313,214	348,750
	Others	663,479	307,369
	Subtotal	10,521,632	12,406,888
Corporate bonds and others	State owned entity bonds	5,618,840	5,669,233
	Corporate bonds	461,899	245,063
	Others	20,640	–
	Subtotal	6,101,379	5,914,296
Other securities	Convertible bond (permanent)	89,131	80,331
Securities denominated in foreign currencies	Equity securities in foreign currencies	6,406	29,762
	Bonds in foreign currencies	5,652,403	6,218,988
	Subtotal	5,658,809	6,248,750
Total		32,960,581	35,234,358

12-2 As of December 31, 2022 and 2021, details of equity instruments included in financial assets at FVOCI are as follows (Korean won in millions):

Counterparty	Fair value (Book value)	
	December 31, 2022	December 31, 2021
UAMCO., Ltd.	188,721	176,628
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	170,845	207,809
The Korea Securities Finance Corporation	115,513	120,334
National Happiness Fund	50,942	84,067
Taihan Cable & Solution Co., Ltd	46,131	54,925
STX Engine Co., Ltd.	45,207	23,877
Kookrin Cable Investment Inc.	43,924	56,454
Korea Rating & Data	20,111	14,330
Hyundai Merchant Marine Co., Ltd.	17,387	23,924
Korea Asset Management Corporation	15,737	15,737
BC Card Co., Ltd.	10,604	9,784
HJC Inc.	9,817	8,271
Korea Money Brokerage Corp.	9,660	11,463
KG Dongbu Steel Co., Ltd.	8,387	20,908
Mirae Credit Information Co., Ltd.	7,324	5,944
Kumho Tire Co., Ltd.	6,748	11,190
DB Asset Management Co., Ltd.	5,713	5,698
CLS Group Holdings AG	5,038	4,761
POSCO Plantec Co., Ltd.	4,676	3,344
Daelim Construction Co.	2,509	4,586
Korea Securities Depository and others	25,511	47,546
Total	810,505	911,580

Equity instruments that are held by the purpose of strategic alliances, acquisition due to conversion from debt instruments and acquisition for access rights of systems and facilities are designated as measured at FVOCI.

12-3 Details of equity instruments included in the financial assets at FVOCI derecognized for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Counterparty	Fair value	Cumulative valuation gain (loss)	Reason for disposal
Sun jin Air & Tech.Co.,Ltd.	-	-	Free incineration of securities
SHINDONG DIGITECH CO., LTD	-	-	Free incineration of securities
IHSUNG ON CO.,LTD	-	-	Sale of securities convertible to equity securities
Hansol Papertech Co., Ltd.	1	1	Sale of securities convertible to equity securities
EMNI Co., Ltd	119	119	Sale of securities convertible to equity securities
Kolmarpharma Co., Ltd.	1	1	Sale of securities convertible to equity securities
Golden Bridge Asset Management Co., Ltd.	478	78	Sales due to decreased effectiveness of strategic investment through business alliances
DAEIL LEATHER CO., LTD.	40	40	Exercise of the right to claim for reimbursement rehabilitation plan
Olive Co., Ltd.	22	22	Exercise of call option according to the rehabilitation plan
ChinHung International, Inc.	3,280	(1,320)	Resolution of the board of directors
Taihan Cable & Solution Co., Ltd	1,174	1,174	Resolution of the board of directors
KG Dongbu Steel Co., Ltd.	20,980	(3,806)	Resolution of the board of directors
Total	26,095	(3,691)	

<2021>

Counterparty	Fair value	Cumulative valuation gain (loss)	Reason for disposal
BOO YOUNG FINANCE	793	293	Liquidation of a corporation
KIRIN industrial Co.,Ltd.	46	46	Exercise of the right to sell
Dauning Co.,Ltd.	148	148	Total sale in response to a private contract
KUMHO ELECTRIC CO.,LTD.	1,672	(1,353)	Resolution of the Board of Directors
Taihan Cable & Solution Co., Ltd	12,111	(28,391)	Resolution of the Board of Directors
ChinHung International, Inc.	12,700	(2,915)	Resolution of the Board of Directors
Hyundai Merchant Marine Co., Ltd.	146,293	110,760	Resolution of the Board of Directors
HANJIN HEAVY INDUSTRIES & CONSTRUCTION CO.,LTD.	40,747	(36,905)	Resolution of the Board of Directors
IHSUNG ON CO.,LTD	30	30	Sale of securities convertible to equity securities
Kolmarpharma Co.,Ltd.	308	308	Sale of securities convertible to equity securities
Koramco REITs Management and Trust Co., Ltd.	9,327	8,952	Sales due to decreased effectiveness of strategic investment through business alliances
K3I CO.,LTD.	458	228	Sales due to decreased effectiveness of strategic investment through business alliances
Daewoo Development Co., Ltd. -Engineering&Construction(1P)	609	-	Conversion to common stock
Hyunwoo industrial machinery Co.,Ltd	9	9	Exercise of the right to sell
Total	225,251	51,210	

12-4 There are no dividends recognized due to the equity instruments at FVOCI derecognized for the year ended December 31, 2022. Dividends recognized in relation to the equity instruments at FVOCI held as of December 31, 2022 amount to ₩8,287 million. Dividends recognized in relation to the equity instruments at FVOCI derecognized for the year ended December 31, 2021 amount to ₩133 million. Dividends recognized in relation to the equity instruments at FVOCI held as of December 31, 2021 amount to ₩7,230 million.

12-5 Changes in the loss allowance in relation to financial assets at FVOCI for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	11,298	—	—	11,298
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
Provision for ECL	2,516	—	—	2,516
Removed debt securities	(3,119)	—	—	(3,119)
Exchange rate fluctuation and others	455	—	—	455
Ending balance	11,150	—	—	11,150

<2021>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	10,009	—	—	10,009
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
Provision for ECL	5,133	—	—	5,133
Removed debt securities	(5,327)	—	—	(5,327)
Exchange rate fluctuation and others	1,483	—	—	1,483
Ending balance	11,298	—	—	11,298

12-6 Changes in the total book value in relation to financial assets at FVOCI for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	34,322,778	—	—	34,322,778
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
New financial assets executed or purchased	10,732,956	—	—	10,732,956
Removed debt securities	(12,330,139)	—	—	(12,330,139)
Exchange rate fluctuation and others	(575,519)	—	—	(575,519)
Ending balance	32,150,076	—	—	32,150,076

<2021>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	32,019,707	—	—	32,019,707
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	—	—	—
New financial assets executed or purchased	18,757,341	—	—	18,757,341
Removed debt securities	(16,507,219)	—	—	(16,507,219)
Exchange rate fluctuation and others	52,949	—	—	52,949
Ending balance	34,322,778	—	—	34,322,778

13. Securities at amortized cost

13-1 Details of securities measured at amortized cost as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	Category	December 31, 2022	December 31, 2021
Government and public bonds	Treasury bonds	3,177,898	2,390,365
	Housing bonds	3,585,127	3,052,061
	Other local government bonds	506,322	436,729
	Subtotal	7,269,347	5,879,155
Finance bonds	Monetary stabilization bond	649,822	–
	Deposit bank bonds	545,116	568,739
	Small- and medium-sized business banking bonds	2,299,454	320,049
	Industrial financial bonds	3,967,758	334,203
	Export-import credit bonds	429,681	130,146
	Subtotal	7,891,831	1,353,137
Corporate bonds and others	State owned entity bonds	18,316,697	11,958,377
	Corporate bonds	298,312	130,604
	Subtotal	18,615,009	12,088,981
Securities denominated in foreign currencies	Bonds in foreign currencies	3,890,116	3,165,915
Allowances		(82,816)	(19,304)
Total		37,583,487	22,467,884

13-2 Profit or loss from disposal of securities at amortized cost for the years ended December 31, 2022 and 2021 is as follows (Korean won in millions):

<2022>

Classification	Face amount	Book value	Amount of profit from disposal
Corporate bonds and others	7,800	7,796	4

For the year ended December 31, 2022, the Group disposed portion of securities at amortized cost in response to the exercise of options (prepayment option) by the issuer of securities.

<2021>

Classification	Face amount	Book value	Amount of profit from disposal
Corporate bonds and others	28,900	28,880	20

For the year ended December 31, 2021, the Group disposed portion of securities at amortized cost in response to the exercise of options (prepayment option) by the issuer of securities.

13-3 Changes in the loss allowance in relation to securities at amortized cost for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	8,104	11,200	—	19,304
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	(8,470)	8,470	—
Provision for possible loan losses	5,525	3,007	58,941	67,473
Removed debt securities	(507)	—	—	(507)
Exchange rate fluctuation and others	(49)	36	(3,441)	(3,454)
Ending balance	13,073	5,773	63,970	82,816

<2021>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	9,641	—	—	9,641
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	(4,062)	4,062	—	—
Transfer to credit-impaired debt securities	—	—	—	—
Provision for possible loan losses	5,484	6,604	—	12,088
Removed debt securities	(1,561)	(245)	—	(1,806)
Exchange rate fluctuation and others	(1,398)	779	—	(619)
Ending balance	8,104	11,200	—	19,304

13-4 Changes in the carrying amounts of securities at amortized cost for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	22,393,248	93,940	—	22,487,188
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	—	—	—	—
Transfer to credit-impaired debt securities	—	(68,827)	68,827	—
New debt securities executed or purchased	16,705,097	—	—	16,705,097
Removed debt securities	(1,664,801)	—	—	(1,664,801)
Effective interest rate amortization	(23,576)	—	—	(23,576)
Exchange rate fluctuation and others	164,491	(605)	(1,491)	162,395
Ending balance	37,574,459	24,508	67,336	37,666,303

<2021>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit-impaired debt securities	Credit-impaired debt securities	
Beginning balance	17,112,496	—	—	17,112,496
Transfer to 12-month ECL	—	—	—	—
Transfer to non-credit-impaired debt securities	(112,583)	112,583	—	—
Transfer to credit-impaired debt securities	—	—	—	—
New debt securities executed or purchased	10,360,043	—	—	10,360,043
Removed debt securities	(5,127,492)	(28,354)	—	(5,155,846)
Effective interest rate amortization	18,429	—	—	18,429
Exchange rate fluctuation and others	142,355	9,711	—	152,066
Ending balance	22,393,248	93,940	—	22,487,188

14. Pledged assets and acquired collaterals

14-1 Assets pledged as collateral as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	Category	December 31, 2022	December 31, 2021
Financial assets at FVTPL	Securities lent	412,491	49,906
	Others	390,251	–
	Subtotal	802,742	49,906
Financial assets at FVOCI	Intraday overdraft	272,486	277,657
	Securities lent	1,925,345	2,538,542
	BOK borrowings	1,240,667	829,803
	Foreign currency borrowing	–	203,962
	BOK payment	39,707	1,871,226
	Futures	374,368	202,927
	Customer RP	46	–
	Others	3,057,070	733,625
	Subtotal	6,909,689	6,657,742
Securities at amortized cost	Futures	10,000	100,047
	BOK payment	2,905,847	2,313,892
	Intraday overdraft	373,511	372,940
	BOK borrowings	4,719,163	4,311,268
	Foreign currency borrowing	484,066	910,097
	Securities lent	416,386	–
	Others	1,151,860	487,273
	Subtotal	10,060,833	8,495,517
Total		17,773,264	15,203,165

14-2 The fair value of collateral that is available for sale and repledge, irrespective of default as of December 31, 2022 and 2021 is as follows (Korean won in millions):

<December 31, 2022>

Classification	Fair value of collateral	Fair value of collateral sold or repledged
Securities	11,589,157	3,349,854

<December 31, 2021>

Classification	Fair value of collateral	Fair value of collateral sold or repledged
Securities	10,900,985	—

15. Loans

15-1 Loans as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Loans		
Loans in Korean won	274,028,231	257,200,957
Loans denominated in foreign currencies	32,053,751	28,249,074
Domestic import usance	4,546,348	4,188,861
Call loans	1,377,862	1,288,673
Bills purchased in Korean won	936,548	187,361
Bills purchased denominated in foreign currencies	5,289,419	5,799,103
Advance payments on payment guarantees	5,533	12,083
Bonds purchased under resale agreement	11,776,664	11,380,982

Classification	December 31, 2022	December 31, 2021
Privately placed corporate bonds	1,081,238	1,302,399
Others	401,026	622,788
Subtotal	331,496,620	310,232,281
Addition (deduction)		
Net deferred origination fees and costs	356,338	378,995
Allowance for loan losses	(1,666,617)	(1,433,568)
Subtotal	(1,310,279)	(1,054,573)
Total	330,186,341	309,177,708

15-2 Loans by customer as of December 31, 2022 and 2021 are listed as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Corporate loans		
Large-sized businesses	49,305,435	41,137,136
Small- and medium-sized businesses	129,742,648	118,139,802
Public sector and others	19,907,599	17,753,672
Household loans	132,540,938	133,201,671
Subtotal	331,496,620	310,232,281
Addition (deduction)		
Net deferred origination fees and costs	356,338	378,995
Allowance for loan losses	(1,666,617)	(1,433,568)
Subtotal	(1,310,279)	(1,054,573)
Total	330,186,341	309,177,708

15-3 Changes in allowance for loan losses for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit -impaired loan	Credit- impaired loan	
Beginning balance	405,354	668,520	359,694	1,433,568
Transfer to 12-month ECL	39,276	(37,361)	(1,915)	-
Transfer to non-credit-impaired loan	(37,102)	38,749	(1,647)	-
Transfer to credit-impaired loan	(8,994)	(28,298)	37,292	-
Provisions (reversal) of allowance for loan losses (*)	186,883	118,465	279,658	585,006
Write-offs	-	-	(428,658)	(428,658)
Disposal of non-performing loans, etc.	-	-	(31,429)	(31,429)
Recovering of loans written off	-	-	90,478	90,478
Exchange rate fluctuation and others	13,505	3,874	273	17,652
Ending balance	598,922	763,949	303,746	1,666,617

(*) As of December 31, 2022, in order to expand loss absorption capacity in growing economic uncertainty worldwide, the Bank has accumulated an additional ₩50,387 million in allowances for financial support interest and deferred repayment loans for small- and medium-sized companies and small business owners affected by COVID-19. The additional allowances include ₩413 million in impact of Stage 2 classification of principal and interest deferred borrowers.

<2021>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit -impaired loan	Credit- impaired loan	
Beginning balance	445,050	488,173	371,719	1,304,942
Transfer to 12-month ECL	96,828	(49,769)	(47,059)	-
Transfer to non-credit-impaired loan	(59,066)	67,101	(8,035)	-
Transfer to credit-impaired loan	(8,560)	(39,663)	48,223	-
Provisions (reversal) of allowance for loan losses	(105,552)	216,130	120,735	231,313
Write-offs	-	-	(260,825)	(260,825)
Disposal of non-performing loans, etc.	-	-	(14,513)	(14,513)
Recovering of loans written off	-	-	151,553	151,553
Exchange rate fluctuation and others	36,654	(13,452)	(2,104)	21,098

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit -impaired loan	Credit- impaired loan	
Ending balance	405,354	668,520	359,694	1,433,568

15-4 Changes in the carrying amounts of loans for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit -impaired loan	Credit- impaired loan	
Beginning balance	270,511,534	38,818,581	902,166	310,232,281
Transfer to 12-month ECL	6,182,647	(6,172,422)	(10,225)	-
Transfer to non-credit-impaired loan	(12,624,851)	12,640,990	(16,139)	-
Transfer to credit-impaired loan	(470,765)	(409,106)	879,871	-
Net increase (decrease)	25,848,699	(3,728,086)	(251,415)	21,869,198
Write-offs	-	-	(428,658)	(428,658)
Disposal of non-performing loans	-	-	(176,201)	(176,201)
Ending balance	289,447,264	41,149,957	899,399	331,496,620

<2021>

Classification	12-month ECL	Lifetime ECL		Total
		Non-credit -impaired loan	Credit- impaired loan	
Beginning balance	255,680,114	28,843,049	1,013,332	285,536,495
Transfer to 12-month ECL	4,023,151	(3,965,609)	(57,542)	-
Transfer to non-credit-impaired loan	(17,563,839)	17,610,433	(46,594)	-
Transfer to credit-impaired loan	(369,805)	(375,621)	745,426	-
Net increase (decrease)	28,741,913	(3,293,671)	(299,997)	25,148,245
Write-offs	-	-	(260,825)	(260,825)
Disposal of non-performing loans	-	-	(191,634)	(191,634)
Ending balance	270,511,534	38,818,581	902,166	310,232,281

15-5 Amortized costs before changes in contractual cash flows of loans (contractual cash flows changed for the years ended December 31, 2022 and 2021) for which allowance for loan losses has been at the lifetime ECL and net loss recognized based on the changes in contractual cash flows are as follows (Korean won in millions):

Classification	2022	2021
Amortized cost before change	81,226	83,324
Net gain (loss) due to change	(835)	(941)

15-6 Loans whose contractual cash flows changed for which the measurement of allowance for loan losses changed from the lifetime ECL to 12-month ECL on initial recognition during the reporting period are ₩1,355 million as of December 31, 2022 and ₩17,538 million as of December 31, 2021.

15-7 The contractual non-recoverable amount of the loans that has been fully written off as of the end of the reporting period but is still trying to recover is ₩4,090,534 million and ₩4,154,200 million as of December 31, 2022 and 2021.

16. Derivative instruments

16-1 Details of amounts of the unsettled derivative contract and fair value of derivatives held by the Group as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	Amounts of unsettled contract		Accumulated valuation gain (loss)			
	December 31, 2022	December 31, 2021	December 31, 2022		December 31, 2021	
			Assets	Liabilities	Assets	Liabilities
Currency						
Forward	224,433,459	186,580,115	5,673,931	5,229,138	2,505,528	1,813,422
Swap	87,834,023	81,928,667	3,418,688	4,549,082	1,293,491	1,724,641
Options purchased	664,573	452,589	3,742	–	2,344	–
Options sold	635,883	443,674	–	3,267	–	1,564
Futures	1,411,202	1,347,961	–	–	–	–
Subtotal	314,979,140	270,753,006	9,096,361	9,781,487	3,801,363	3,539,627
Interest						
Forward	2,858,744	537,163	217,225	101,410	8,725	2,541
Swap	158,972,394	115,755,021	551,422	826,106	301,485	288,892
Options purchased	66,150	201,966	–	–	424	–
Options sold	765,000	905,000	–	9,458	–	13,354
Futures	857,539	253,090	–	–	–	–
Subtotal	163,519,827	117,652,240	768,647	936,974	310,634	304,787
Stock						
Forward	524	654	286	–	184	–
Swap	72,499	–	578	1,827	–	–
Options purchased	50,219	64,119	213	–	478	–
Options sold	263,304	140,380	–	22,289	–	5,049
Futures	21,681	3,943	–	–	–	–
Subtotal	408,227	209,096	1,077	24,116	662	5,049
Others						
Credit spread adjustment	–	–	(14,331)	–	(11,310)	–
Total	478,907,194	388,614,342	9,851,754	10,742,577	4,101,349	3,849,463

16-2 Details of valuation gain (loss) of the derivatives for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022		2021	
	Valuation gain	Valuation loss	Valuation gain	Valuation loss
Currency:				
Forward	5,218,502	5,186,622	2,581,142	1,804,717
Swap	2,842,829	3,554,679	2,345,729	3,104,380
Options purchased	3,976	–	4,373	–
Options sold	–	1,377	–	1,955
Subtotal	8,065,307	8,742,678	4,931,244	4,911,052
Interest:				
Forward	208,726	99,096	8,725	2,541
Swap	698,094	977,477	290,564	489,649
Options purchased	1,579	–	4,500	–
Options sold	–	4,195	–	299
Subtotal	908,399	1,080,768	303,789	492,489
Stock:				
Forward	171	–	–	34
Swap	269	2,415	–	–
Options purchased	562	–	2,394	–
Options sold	2,331	20,739	–	1,978
Subtotal	3,333	23,154	2,394	2,012
Others:				
Credit spread adjustment	–	3,020	1,959	–
Total	8,977,039	9,849,620	5,239,386	5,405,553

16-3 Fair value hedge

16-3-1 Details of items subject to fair value hedge as of December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	Hedged items	Book Value		Accumulated fair value adjustments		Change in fair value
		Assets	Liabilities	Assets	Liabilities	
Application of hedge accounting						
Interest	Depository liabilities in Korean won	—	187,705	—	(62,295)	46,117
	Depository liabilities denominated in foreign currencies	—	115,865	—	(23,538)	24,898
	Finance debentures denominated in Korean won	—	93,262	—	(36,738)	26,241
	Finance debentures denominated in foreign currencies	—	2,773,530	—	(204,625)	228,870
	Subtotal	—	3,170,362	—	(327,196)	326,126
Currency and interest	Finance debentures denominated in foreign currencies	—	1,080,816	—	(70,161)	61,499
Total		—	4,251,178	—	(397,357)	387,625

<December 31, 2021>

Classification	Hedged items	Book Value		Accumulated fair value adjustments		Change in fair value
		Assets	Liabilities	Assets	Liabilities	
Application of hedge accounting						
Interest	Depository liabilities in Korean won	–	233,822	–	(16,178)	12,659
	Depository liabilities denominated in foreign currencies	–	131,765	–	1,360	3,899
	Finance debentures denominated in Korean won	–	119,503	–	(10,497)	6,345
	Finance debentures denominated in foreign currencies	–	2,455,251	–	24,976	76,182
	Subtotal	–	2,940,341	–	(339)	99,085
Currency	Financial assets measured at FVOCI	23,710	–	18,100	–	19,500
Currency and interest	Finance debentures denominated in foreign currencies	–	1,129,830	–	(8,662)	17,439
Total		23,710	4,070,171	18,100	(9,001)	136,024

As of December 31, 2022 and 2021, interest rate swaps or currency swaps are designated as hedging instrument and the fair value hedge accounting is applied in order to hedge fair value fluctuation risk incurred due to interest rate fluctuations and foreign exchange rate fluctuations in finance debentures issued and depository liabilities.

16-3-2 Details of derivative instruments for hedge fair value fluctuation risk held by the Group as of December 31, 2022 and 2021, are as follows:
(Korean won in millions):

<December 31, 2022>

Classification	Unsettled contract amounts	Net valuation gain (loss)	Accumulated valuation gain or loss	
			Assets	Liabilities
Currency				
Currency swaps	1,150,977	(129,660)	8,062	180,193
Interest				
Interest rate swaps	3,497,557	(325,171)	–	325,952
Total	4,648,534	(454,831)	8,062	506,145

<December 31, 2021>

Classification	Unsettled contract amounts	Net valuation gain (loss)	Accumulated valuation gain or loss	
			Assets	Liabilities
Currency				
Currency swaps	1,138,492	(64,377)	19,282	61,752
Interest				
Interest rate swaps	2,940,680	(99,230)	49,388	49,440
Total	4,079,172	(163,607)	68,670	111,192

16-3-3 Fair values of non-derivative financial instruments designated as fair value hedging instrument as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Debentures denominated in foreign currencies	–	237,100

16-3-4 Ineffective portion of gain or loss on derivatives designated as hedging instrument for the years ended December 31, 2022 and 2021, is as follows (Korean won in millions):

Classification	Ineffective portion of the hedge recognized in profit or loss for the period	
	2022	2021
Currency	(19)	(11)
Interest	(204)	(146)
Total	(223)	(157)

16-4 Hedges of net investment in foreign operations

16-4-1 Details of hedges of net investment in foreign operations as of December 31, 2022 and 2021, and fair value fluctuation for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	Fair value fluctuation	Other comprehensive income of hedges of net investment in foreign operations
Currency (Exchange rate risk)	28,241	(49,823)

<December 31, 2021>

Classification	Fair value fluctuation	Other comprehensive income of hedges of net investment in foreign operations
Currency (Exchange rate risk)	56,259	(29,294)

16-4-2 Details of fair values of financial instruments designated as hedging instrument of net investment of foreign operations as of December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	Book value		Fair value fluctuation	Changes in fair value recognized in other comprehensive income	Ineffective portion of the hedge recognized as current profit or loss
	Assets	Liabilities			
Currency forward	–	10,273	(10,273)	(7,448)	–
Borrowings denominated in foreign currencies	–	170,314	6,559	4,755	–
Debentures denominated in foreign currencies	–	1,131,686	(24,527)	(17,782)	–
Total	–	1,312,273	(28,241)	(20,475)	–

<December 31, 2021>

Classification	Book value		Fair value fluctuation	Changes in fair value recognized in other comprehensive income	Ineffective portion of the hedge recognized as current profit or loss
	Assets	Liabilities			
Debentures denominated in foreign currencies	–	779,488	(56,259)	(40,788)	–

16-5 Average hedging ratios of future nominal cash flows by the type of risk hedge as of December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	1 year	2 years	3 years	4 years	5 years	More than 5 years	Total
Fair value hedge							
Nominal amounts of items subject to hedge	494,058	1,375,348	—	1,435,980	760,380	582,768	4,648,534
Nominal amounts of hedging instrument	494,058	1,375,348	—	1,435,980	760,380	582,768	4,648,534
Average hedging ratio	100.18%	100.36%	—	99.95%	102.32%	100.00%	100.15%
Hedge of net investment in foreign operations							
Nominal amounts of items subject to hedge	511,355	576,205	—	224,713	—	—	1,312,273
Nominal amounts of hedging instrument	511,355	576,205	—	224,713	—	—	1,312,273
Average hedging ratio	99.42%	100.00%	—	100.00%	—	—	99.78%

<December 31, 2021>

Classification	1 year	2 years	3 years	4 years	5 years	More than 5 years	Total
Fair value hedge							
Nominal amounts of items subject to hedge	355,650	467,116	1,304,256	—	1,382,470	806,780	4,316,272
Nominal amounts of hedging instrument	355,650	467,116	1,304,256	—	1,382,470	806,780	4,316,272
Average hedging ratio	100.00%	99.75%	99.66%	—	99.90%	100.00%	99.90%
Hedge of net investment in foreign operations							
Nominal amounts of items subject to hedge	—	—	—	—	—	779,488	779,488
Nominal amounts of hedging instrument	—	—	—	—	—	779,488	779,488
Average hedging ratio	—	—	—	—	—	100.00%	100.00%

16-6 Hedging relationships affected by IBOR Reform

16-6-1 The exposure to hedging relationships due to the Group's LIBOR Reform as of December 31, 2022 and 2021 are as follows (Korean won in millions):

The USD LIBOR interest rate will be replaced by a Secure Overnight Financing Rate (SOFR) based on actual transactions. And the KRW certificate of deposit ("CD") rate can be replaced by the RFR (Risk Free Rate) in case of an emergency in the long run. In this hedging relationship, the Group assumed that the spread based on a SOFR would be similar to that included in the interest rate swap used as a hedging instrument and no other changes were assumed.

<December 31, 2022>

Interest index	Currency	Book value of non-derivative financial liabilities	Nominal value of hedging instruments
KRW 91CD	KRW	280,967	380,000
USD 3M LIBOR	USD	3,257,616	3,508,155

<December 31, 2021>

Interest index	Currency	Book value of non-derivative financial liabilities	Nominal value of hedging instruments
KRW 91CD	KRW	353,324	380,000
USD 3M LIBOR	USD	3,716,846	3,699,172

16-6-2 The nominal amount and weighted-average maturity of derivatives that will be affected by the IBOR reform for transition to an alternative index interest rate basis as of December 31, 2022 and 2021, are as follows,
(Korean won in millions, Year):

<December 31, 2022>

Interest index	Currency	Nominal value of derivatives	Weighted average of remaining life
KRW 91CD	KRW	380,000	16.74
USD 3M LIBOR	USD	3,508,155	3.48

<December 31, 2021>

Interest index	Currency	Nominal value of derivatives	Weighted average of remaining life
KRW 91CD	KRW	380,000	17.74
USD 3M LIBOR	USD	3,699,172	4.03

17. Investments in associates and a joint venture

17-1 Details of investments in associates and a joint venture as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	Type	Country	Industry	Reporting date	Ownership (%)		Book value	
					December 31, 2022	December 31, 2021	December 31, 2022	December 31, 2021
Bank of Jilin (*1)	Associates	China	Bank	2022.12.31	11.92	11.92	877,491	853,878
Hana Equity Partners I, L.P.	Associates	Korea	Other financial services	2022.12.31	29.97	29.97	95	221
Korea Credit Bureau (*1)	Associates	Korea	Credit investigation and Collection agency	2022.12.31	9.00	9.00	5,503	8,876
Templeton Hana Asset Management Co., Ltd. (*1)	Associates	Korea	Asset Management Company	2022.12.31	9.90	9.90	1,387	1,271
CM International financing leases	Associates	China	Other financial services	2022.12.31	25.00	25.00	1,629	2,150
Beijing Langzi Asset Management Co., Ltd. (*1)	Associates	China	Credit financial business	2022.12.31	12.89	12.89	56,805	56,830
Somesevit Corporation (*1)(*2)	Associates	Korea	Construction	2022.12.31	1.92	1.92	–	–
Midan City Development Co., Ltd. (*1)(*2)(*3)	Associates	Korea	Construction	2018.03.31	2.17	2.17	–	–
Company K Startup Winwin Fund	Associates	Korea	Investment	2022.12.31	23.81	23.81	2,355	5,214
BSK-6 Patent Technology Investment Association	Associates	Korea	Investment	2022.12.31	20.00	20.00	2,748	2,559
Hana – KVIC Unicorn Fund of Funds (*4)	Associates	Korea	Investment	2022.12.31	90.91	90.91	98,244	72,529
Harvest Private Equity Fund Specializing in Start-Up and Venture Business	Associates	Korea	Investment	2022.12.31	27.30	27.30	2,805	2,877
Bank for Investment and Development of Vietnam ("BIDV") (*1)	Associates	Vietnam	Bank	2022.12.31	15.00	15.00	1,641,419	1,441,797
Hana Micro Finance., Ltd.	Associates	Myanmar	Other financial services	2022.12.31	25.00	25.00	18,199	19,056
HORIZON PRIVATE EQUITY FUND	Associates	Korea	Investment	2022.12.31	22.40	22.40	49,491	65,098
Hana Ventures No. 7 New Technology Business Investment Association	Associates	Korea	Investment	2022.12.31	27.27	27.27	1,434	1,465
TossBank Corp.(*1)	Associates	Korea	Bank	2022.12.31	8.62	10.00	87,566	49,125
Sinsa Station area Complex Development PFV Co., Ltd.(*1)	Associates	Korea	Other development supply	2022.12.31	9.00	9.00	365	451
Hana-Capstone AI Platform Fund	Associates	Korea	Other financial services	2022.12.31	36.54	36.54	29,287	14,836
Taurus Cloud Fund	Associates	Korea	Other financial services	2022.12.31	27.06	27.06	9,416	9,391
Cheongna Medipolis PFV Co., Ltd. (*1)	Associates	Korea	Real estate development and supply	2022.12.31	11.24	11.24	1,712	2,598
NPX-Welcome Metaverse Contents Fund	Associates	Korea	Other financial services	2022.12.31	25.00	25.00	978	1,000
Hana Beyond Finance Fund	Associates	Korea	Other financial services	2022.12.31	26.67	–	23,507	–
All Together Korea Fund 5 (*4)	Associates	Korea	Other financial services	2022.12.31	100.00	100.00	10,245	10,070
Hana-New Deal K-Growth fund (*4)	Associates	Korea	Other financial services	2022.12.31	90.00	90.00	24,029	1,778
Defense Technology Innovation Private Investment Trust (*4)	Associates	Korea	Other financial services	2022.12.31	98.33	–	2,948	–
SHINJIN INTERNATIONAL CORPORATION (*2)(*3)(*5)	Associates	Korea	Manufacturing	2021.12.31	24.20	24.20	–	–
KG FASHION CO., LTD. (*2)(*3)(*5)	Associates	Korea	Wholesale and retail	2021.12.31	20.55	20.55	–	–
PT Sinarmas Hana Finance (*6)	Joint venture	Indonesia	Financial services	2022.12.31	30.00	30.00	8,630	7,900
Total							2,958,288	2,630,970

(*1) These companies were included in investment in associates because the

Group has significant influence over them by participating in the Board of Directors' meeting, the decision-making organization.

(*2) As of December 31, 2022, the application of the equity method has been suspended because the balance of the investment account is below "0".

(*3) As the separate financial statements as of December 31, 2022 could not be obtained, the most recent separate financial statements available from the closing date were used. The effect of significant transactions or events incurred between the end of the reporting period of the associate and that of the Group was reviewed and reflected.

(*4) As of December 31, 2022, the Group classified the investee as an associate investment stock because it could not exercise control over the investee.

(*5) After the corporate rehabilitation process ended, the Group reclassified the investments in associates from financial assets measured at FVOCI.

(*6) Since more than one investor must act together to direct related activities, the equity method was applied because the Group could not control the investee individually.

17-2 Condensed consolidated financial statements as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)	Dividends received
Bank of Jilin	99,356,297	92,088,037	7,268,260	4,248,227	409,505	362,211	–
Hana Equity Partners I, L.P.	321	5	316	2	(21)	(21)	120
Korea Credit Bureau	155,165	100,065	55,100	144,907	13,809	13,809	–
Templeton Hana Asset Management Co., Ltd.	18,839	4,824	14,015	8,129	2,483	2,483	198
CM International financing leases	1,660,081	1,638,839	21,242	27,978	(36,973)	(42,075)	–
Beijing Langzi Asset Management Co., Ltd.	481,800	34,098	447,702	47,954	23,524	23,951	1,708
Somesevit Corporation	40,850	120,360	(79,510)	6,042	(3,572)	(3,572)	–
Midan City Development Co., Ltd.	662,631	686,733	(24,102)	–	–	–	–
Company K Startup Winwin Fund	9,899	3	9,896	25,224	18,769	18,571	2,240
BSK-6 Patent Technology Investment Association	14,525	785	13,740	1,180	876	2,579	–
Hana – KVIC Unicorn Fund of Funds	108,429	361	108,068	1,440	1,077	612	–
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	10,279	–	10,279	58	(166)	(166)	27
BIDV (*)	114,300,714	108,381,237	5,919,477	8,100,357	1,071,496	1,008,754	–
Hana Micro Finance., Ltd.	200,074	121,933	78,141	36,447	5,255	(3,354)	–
HORIZON PRIVATE EQUITY FUND	226,400	5,453	220,947	37	(13,684)	(13,684)	8,045
Hana Ventures No. 7 New Technology Business Investment Association	5,285	28	5,257	3	(113)	(113)	–
TossBank Corp.	23,398,698	22,432,155	966,543	755,905	(244,515)	(368,435)	–
Sinsa Station area Complex Development PFV Co., Ltd.	233,652	229,606	4,046	148	(956)	(956)	–
Hana-Capstone AI Platform Fund	80,570	420	80,150	142	(1,502)	(1,502)	–
Taurus Cloud Fund	34,675	3	34,672	–	(171)	(171)	–
Cheongna Medipolis PFV Co., Ltd.	15,373	138	15,235	–	(7,886)	(7,886)	–
NPX-Welcome Metaverse Contents fund	3,911	–	3,911	1	(89)	(89)	–
Hana Beyond Finance Fund	88,908	756	88,152	229	(1,848)	(1,848)	–
All Together Korea Fund 5	10,246	1	10,245	149	144	144	62
Hana-New Deal K-Growth fund	27,024	72	26,952	85	(21)	(21)	–
Defense Technology Innovation Private Investment Trust	3,002	5	2,997	2	(3)	(3)	–
SHINJIN INTERNATIONAL CORPORATION	138	9,436	(9,298)	221	34	34	–
KG FASHION CO., LTD.	3,347	3,050	297	2,812	(262)	(262)	–
PT Sinarma Hana Finance	113,883	85,812	28,071	17,664	2,496	2,496	–

(*) This is financial information that reflects Purchased Price Allocation (PPA) valuation and GAAP adjustments in the financial information of the Bank for Investment and Development of Vietnam (BIDV).

<December 31, 2021>

Classification	Assets	Liabilities	Equity	Operating income	Net income (loss)	Total comprehensive income (loss)	Dividends received
Bank of Jilin	88,184,828	81,116,728	7,068,100	3,702,700	371,737	426,308	-
Hana Equity Partners I, L.P	742	6	736	8	(1)	(1)	4,689
Korea Credit Bureau	113,859	21,284	92,575	127,751	20,486	20,486	90
Templeton Hana Asset Management Co., Ltd.	16,414	3,569	12,845	6,954	2,164	2,164	990
CM International financing leases	2,007,878	1,951,718	56,160	73,361	(56,735)	(51,738)	-
Beijing Langzi Asset Management Co., Ltd.	474,244	26,676	447,568	28,444	32,066	32,366	1,344
Somesevit Corporation	44,567	120,510	(75,943)	4,557	(5,839)	(5,839)	-
Midan City Development Co., Ltd.	662,631	686,733	(24,102)	-	-	-	-
Company K Startup Winwin Fund	22,160	257	21,903	747	484	116	-
BSK-6 Patent Technology Investment Association	13,414	619	12,795	7	(303)	(303)	-
Hana - KVIC Unicorn Fund of Funds	79,960	179	79,781	59	(340)	(340)	-
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	10,545	-	10,545	109	(115)	(115)	27
BIDV (*)	92,956,813	87,629,602	5,327,211	6,348,533	800,354	810,114	6,262
Hana Micro Finance., Ltd.	253,452	171,957	81,495	63,461	1,984	(13,313)	-
HORIZON PRIVATE EQUITY FUND	292,739	2,743	289,996	-	(3,002)	(3,002)	-
Hana Ventures No. 7 New Technology Business Investment Association	5,370	-	5,370	1	(115)	(115)	-
TossBank Corp.	14,348,062	13,906,113	441,949	37,066	(81,653)	(77,900)	-
All Together Korea Fund 5	10,072	2	10,070	53	47	47	-
Sinsa Station area Complex Development PFV Co., Ltd.	215,351	210,345	5,006	30	6	6	-
Hana-Capstone AI Platform Fund	40,967	365	40,602	43	(448)	(448)	-
Hana-New Deal K-Growth fund	2,007	34	1,973	3	(28)	(28)	-
Taurus Cloud Fund	34,737	37	34,700	-	(37)	(37)	-
Cheongna Medipolis PFV Co., Ltd	23,297	176	23,121	-	(6,206)	(6,206)	-
NPX-Welcome Metaverse Contents fund	4,000	-	4,000	-	-	-	-
SHINJIN INTERNATIONAL CORPORATION	155	9,612	(9,457)	354	(318)	(318)	-
Inhee, Co., Ltd	2,470	1,452	1,018	1,574	266	266	-
KG FASHION CO., LTD.	3,722	3,163	559	3,311	(357)	(357)	-
PT Sinarmas Hana Finance	91,908	65,574	26,334	12,471	233	233	-

(*) This is financial information that reflects Purchased Price Allocation (PPA) valuation and GAAP adjustments in the financial information of the Bank for Investment and Development of Vietnam (BIDV).

17-3 Changes in the investment in an associate and a joint venture for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Beginning balance	Acquisition and others	Dividend	Book value before valuation	Equity method valuation			Others	Disposal	Ending balance
					Share of profit (loss)	Impairment of equity method	Changes in equity			
Bank of Jilin	853,878	–	–	853,878	49,900	–	(26,287)	–	–	877,491
Hana Equity Partners I, L.P	221	–	(120)	101	(6)	–	–	–	–	95
Korea Credit Bureau	8,876	–	–	8,876	(3,373)	–	–	–	–	5,503
Templeton Hana Asset Management Co., Ltd.	1,271	–	(198)	1,073	314	–	–	–	–	1,387
CM International financing leases	2,149	–	–	2,149	–	(520)	–	–	–	1,629
Beijing Langzi Asset Management Co., Ltd.	56,830	–	(1,708)	55,122	2,957	–	(1,274)	–	–	56,805
Somesevit Corporation	–	–	–	–	–	–	–	–	–	–
Midan City Development Co., Ltd.	–	–	–	–	–	–	–	–	–	–
Company K Startup Winwin Fund	5,214	–	(2,240)	2,974	4,278	–	(47)	–	(4,850)	2,355
BSK-6 Patent Technology Investment Association	2,559	–	–	2,559	175	–	341	–	(327)	2,748
Hana – KVIC Unicorn Fund of Funds	72,529	25,130	–	97,659	1,008	–	(423)	–	–	98,244
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	2,877	–	(27)	2,850	(45)	–	–	–	–	2,805
Bank for investment and Development of Vietnam (BIDV)	1,441,797	–	–	1,441,797	160,724	–	38,898	–	–	1,641,419
Hana Micro Finance., Ltd.	19,056	–	–	19,056	1,293	–	(2,150)	–	–	18,199
HORIZON PRIVATE EQUITY FUND	65,098	–	(8,045)	57,053	(3,217)	–	3,047	–	(7,392)	49,491
Hana Ventures No. 7 New Technology Business Investment Association	1,465	–	–	1,465	(31)	–	–	–	–	1,434
TossBank Corp.	49,125	70,000	–	119,125	(23,808)	–	(10,973)	3,222	–	87,566
Sinsa Station area Complex Development PFV Co., Ltd.	451	–	–	451	(86)	–	–	–	–	365
Hana-Capstone AI Platform Fund	14,836	15,000	–	29,836	(549)	–	–	–	–	29,287
Taurus Cloud Fund	9,391	77	–	9,468	(52)	–	–	–	–	9,416
Cheongna Medipolis PFV Co., Ltd.	2,598	–	–	2,598	(886)	–	–	–	–	1,712
NPX-Welcome Metaverse Contents fund	1,000	–	–	1,000	(22)	–	–	–	–	978
Hana Beyond Finance Fund	–	24,000	–	24,000	(493)	–	–	–	–	23,507
All Together Korea Fund 5	10,070	62	(62)	10,070	175	–	–	–	–	10,245
Hana-New Deal K-Growth fund	1,778	22,500	–	24,278	(249)	–	–	–	–	24,029
Defense Technology Innovation Private Investment Trust	–	2,950	–	2,950	(2)	–	–	–	–	2,948
SHINJIN INTERNATIONAL CORPORATION	–	–	–	–	–	–	–	–	–	–
KG FASHION CO., LTD.	–	–	–	–	–	–	–	–	–	–
PT Sinarmas Hana Finance	7,900	–	–	7,900	1,008	–	–	(278)	–	8,630
Total	2,630,969	159,719	(12,400)	2,778,288	189,013	(520)	1,132	2,944	(12,569)	2,958,288

<2021>

Classification	Beginning balance	Acquisition and others	Dividend	Book value before valuation	Equity method valuation			Others	Disposal	Ending balance
					Share of profit (loss)	Impairment of equity method	Changes in equity			
Bank of Jilin	758,816	-	-	758,816	4,657	-	94,111	-	(3,706)	853,878
Hana Equity Partners I, L.P	664	-	(4,689)	(4,025)	4,246	-	-	-	-	221
Korea Credit Bureau	7,697	-	(90)	7,607	1,269	-	-	-	-	8,876
Templeton Hana Asset Management Co., Ltd.	1,972	-	(990)	982	289	-	-	-	-	1,271
CM International financing leases	2,777	-	-	2,777	-	(627)	-	-	-	2,150
Beijing Langzi Asset Management Co.,Ltd.	48,308	-	(1,344)	46,964	4,186	-	5,680	-	-	56,830
Somesevit Corporation	-	-	-	-	-	-	-	-	-	-
Midan City Development Co., Ltd.	-	-	-	-	-	-	-	-	-	-
Company K Startup Winwin Fund	5,487	-	-	5,487	115	-	(88)	-	(300)	5,214
BSK-6 Patent Technology Investment Association	2,621	-	-	2,621	(62)	-	-	-	-	2,559
Hana - KVIC Unicorn Fund of Funds	55,813	18,000	-	73,813	(1,284)	-	-	-	-	72,529
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	2,937	-	(27)	2,910	(33)	-	-	-	-	2,877
Bank for Investment and Development of Vietnam (BIDV)	1,194,183	-	(6,262)	1,187,921	120,053	-	133,823	-	-	1,441,797
Hana Micro Finance., Ltd.	22,158	-	-	22,158	1,755	-	(3,595)	-	(1,262)	19,056
HORIZON PRIVATE EQUITY FUND	60,256	-	-	60,256	(538)	-	5,380	-	-	65,098
Hana Ventures No. 7 New Technology Business Investment Association	1,496	-	-	1,496	(31)	-	-	-	-	1,465
TossBank Corp.	7,500	47,500	-	55,000	(6,124)	-	249	-	-	49,125
All Together Korea Fund 5	10,023	-	-	10,023	47	-	-	-	-	10,070
Sinsa Station area Complex Development PFV Co., Ltd.	-	450	-	450	1	-	-	-	-	451
Hana-Capstone AI Platform Fund	-	15,000	-	15,000	(213)	-	-	-	49	14,836
Hana-New Deal K-Growth fund	-	1,800	-	1,800	(22)	-	-	-	-	1,778
Taurus Cloud Fund	-	9,401	-	9,401	(10)	-	-	-	-	9,391
Cheongna Medipolis PFV Co., Ltd	-	3,372	-	3,372	(699)	-	(75)	-	-	2,598
NPX-Welcome Metaverse Contents fund	-	1,000	-	1,000	-	-	-	-	-	1,000
SHINJIN INTERNATIONAL CORPORATION	-	-	-	-	-	-	-	-	-	-
Inhee.Co,Ltd	-	-	-	-	-	-	-	-	-	-
KG FASHION CO., LTD.	-	-	-	-	-	-	-	-	-	-
PT Sinarmas Hana Finance	7,290	-	-	7,290	70	-	-	540	-	7,900
Koramco Professional Investment Type Real Estate No.73	1,714	-	-	1,714	-	-	-	-	(1,714)	-
Koramco Professional Investment Type Real Estate No.87	1,452	-	-	1,452	-	-	-	-	(1,452)	-
Our Crowd International Invest III	13,970	-	-	13,970	-	-	-	-	(13,970)	-
Hana Alternative Infra Special Investment Private Trust No.3-1	3,589	-	-	3,589	-	-	-	-	(3,589)	-
Hana Alternative Infra Special Investment Private Trust No.3-2	10,423	-	-	10,423	-	-	-	-	(10,423)	-
Total	2,221,146	96,523	(13,402)	2,304,267	127,672	(627)	235,485	540	(36,367)	2,630,970

17-4 The Group discontinued recognizing its losses in shares since the balance of investments in associates was "0" and the losses that are accumulated for the years ended December 31, 2022 and 2021 are as follows
(Korean won in millions):

<December 31, 2022>

Company	Unrecognized amount of changes in equity	Accumulated unrecognized amount of changes in equity
Somesevit Corporation	(69)	(1,527)
Midan City Development Co., Ltd.	–	(523)
Total	(69)	(2,050)

<December 31, 2021>

Company	Unrecognized amount of changes in equity	Accumulated unrecognized amount of changes in equity
Somesevit Corporation	(112)	(1,458)
Midan City Development Co., Ltd.	–	(523)
Total	(112)	(1,981)

17-5 Details of adjustments from net assets of associates and a joint venture to carrying values of shares as of December 31, 2022 and 2021 are as follows
(Korean won in millions):

<December 31, 2022>

Classification	Net assets	Ownership (%)	Share of net assets	Goodwill, etc.	Carrying value
Bank of Jilin	7,268,260	11.92	866,377	11,114	877,491
Hana Equity Partners I, L.P	316	29.97	95	-	95
Korea Credit Bureau	55,100	9.00	4,959	544	5,503
Templeton Hana Asset Management Co., Ltd.	14,015	9.90	1,387	-	1,387
CM International financing leases	21,242	25.00	5,311	(3,682)	1,629
Beijing Langzi Asset Management Co.,Ltd.	447,702	12.89	57,709	(904)	56,805
Somesevit Corporation	(79,510)	1.92	(1,527)	1,527	-
Midan City Development Co., Ltd.	(24,102)	2.17	(523)	523	-
Company K Startup Winwin Fund	9,896	23.81	2,355	-	2,355
BSK-6 Patent Technology Investment Association	13,740	20.00	2,748	-	2,748
Hana - KVIC Unicorn Fund of Funds	108,068	90.91	98,244	-	98,244
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	10,279	27.30	2,805	-	2,805
Bank for Investment and Development of Vietnam (BIDV)	5,919,477	15.00	887,922	753,497	1,641,419
Hana Micro Finance., Ltd.	78,141	25.00	19,535	(1,336)	18,199
HORIZON PRIVATE EQUITY FUND	220,947	22.40	49,491	-	49,491
Hana Ventures No. 7 New Technology Business Investment Association	5,257	27.27	1,434	-	1,434
TossBank Corp.	966,543	8.62	83,316	4,250	87,566
Sinsa Station area Complex Development PFV Co., Ltd.	4,046	9.00	365	-	365
Hana-Capstone AI Platform Fund	80,150	36.54	29,287	-	29,287
Taurus Cloud Fund	34,672	27.06	9,382	34	9,416
Cheongna Medipolis PFV Co., Ltd	15,235	11.24	1,712	-	1,712
NPX-Welcome Metaverse Contents fund	3,911	25.00	978	-	978
Hana Beyond Finance Fund	88,152	26.67	23,507	-	23,507
All Together Korea Fund 5	10,245	100.00	10,245	-	10,245
Hana-New Deal K-Growth fund	26,952	90.00	24,258	(229)	24,029
Defense Technology Innovation Private Investment Trust	2,997	98.33	2,948	-	2,948
SHINJIN INTERNATIONAL COPORATION	(9,298)	24.20	(2,250)	2,250	-
KG FASHION CO., LTD.	297	20.55	61	(61)	-
PT Sinarmas Hana Finance	28,071	30.00	8,421	209	8,630

<December 31, 2021>

Classification	Net assets	Ownership (%)	Share of net assets	Goodwill, etc.	Carrying value
Bank of Jilin	7,068,100	11.92	842,518	11,360	853,878
Hana Equity Partners I, L.P	736	29.97	221	–	221
Korea Credit Bureau	92,575	9.00	8,332	544	8,876
Templeton Hana Asset Management Co., Ltd.	12,845	9.90	1,271	–	1,271
CM International financing leases	56,160	25.00	14,040	(11,890)	2,150
Beijing Langzi Asset Management Co.,Ltd.	447,568	12.89	57,692	(862)	56,830
Somesevit Corporation	(75,943)	1.92	(1,458)	1,458	–
Midan City Development Co., Ltd.	(24,102)	2.17	(523)	523	–
Company K Startup Winwin Fund	21,903	23.81	5,214	–	5,214
BSK-6 Patent Technology Investment Association	12,795	20.00	2,559	–	2,559
Hana – KVIC Unicorn Fund of Funds	79,781	90.91	72,529	–	72,529
Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	10,545	27.30	2,877	–	2,877
Bank for Investment and Development of Vietnam (BIDV)	5,327,211	15.00	799,082	642,715	1,441,797
Hana Micro Finance., Ltd.	81,495	25.00	20,374	(1,318)	19,056
HORIZON PRIVATE EQUITY FUND	289,996	22.40	64,959	139	65,098
Hana Ventures No. 7 New Technology Business Investment Association	5,370	27.27	1,465	–	1,465
TossBank Corp.	441,949	10.00	44,195	4,930	49,125
All Together Korea Fund 5	10,070	100.00	10,070	–	10,070
Sinsa Station area Complex Development PFV Co., Ltd.	5,006	9.00	451	–	451
Hana-Capstone AI Platform Fund	40,602	36.54	14,836	–	14,836
Hana-New Deal K-Growth fund	1,973	90.00	1,776	2	1,778
Taurus Cloud Fund	34,700	27.06	9,391	–	9,391
Cheongna Medipolis PFV Co., Ltd	23,121	11.24	2,598	–	2,598
NPX-Welcome Metaverse Contents fund	4,000	25.00	1,000	–	1,000
SHINJIN INTERNATIONAL COPORATION	(9,457)	24.20	(2,289)	2,289	–
Inhee.Co.,Ltd	1,018	21.84	222	(222)	–
KG FASHION CO., LTD.	559	20.55	115	(115)	–
PT Sinarmas Hana Finance	26,334	30.00	7,900	–	7,900

17-6 Details of investment shares in marketable associates and a joint venture as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Company	Market Price	Price per share (In Korean won)
Bank for Investment and Development of Vietnam (BIDV)	1,572,811	2,073

<December 31, 2021>

Company	Market Price	Price per share (In Korean won)
Bank for Investment and Development of Vietnam (BIDV)	1,466,651	1,933

(*) Bank for Investment and Development of Vietnam (BIDV) determined to pay dividends in December 2021. As a result, the number of shares of the Group increased from 603 million to 759 million shares.

17-7 There are no companies that the Group holds more than 20% of shares, but excluded from investments in associates as of December 31, 2022

Meanwhile, investment trusts whose significant influence on related activities is limited by trust contracts are excluded from investment stocks in associates.

18. Property, plant and equipment

18-1 Property, plant and equipment as of December 31, 2022 and 2021 consist of the following (Korean won in millions):

<December 31, 2022>

Classification	Acquisition cost	Accumulated depreciation	Government grants	Accumulated Impairment loss	Book value
Land	880,392	–	–	(3,786)	876,606
Buildings	959,580	(299,508)	–	(10,215)	649,857
Leasehold improvements	324,237	(263,184)	–	–	61,053
Equipment and vehicles	827,523	(683,660)	(78)	–	143,785
Construction in progress	8,511	–	–	–	8,511
Others	31,258	–	–	–	31,258
Right-of-use assets – real estate	1,288,611	(653,559)	–	–	635,052
Right-of-use assets – equipment and vehicles	28,893	(13,700)	–	–	15,193
Right-of-use assets – others	5,560	(861)	–	–	4,699
Total	4,354,565	(1,914,472)	(78)	(14,001)	2,426,014

<December 31, 2021>

Classification	Acquisition cost	Accumulated depreciation	Government grants	Accumulated Impairment loss	Book value
Land	695,254	–	–	(3,831)	691,423
Buildings	782,017	(273,915)	–	(10,365)	497,737
Leasehold improvements	314,568	(253,601)	–	–	60,967
Equipment and vehicles	783,582	(647,773)	(86)	–	135,723
Construction in progress	9,772	–	–	–	9,772
Others	46,287	–	–	–	46,287
Right-of-use assets – real estate	1,049,080	(500,682)	–	–	548,398
Right-of-use assets – equipment and vehicles	26,821	(13,495)	–	–	13,326
Right-of-use assets – others	1,146	(338)	–	–	808
Total	3,708,527	(1,689,804)	(86)	(14,196)	2,004,441

18-2 Changes in Property, plant and equipment for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Beginning balance	Acquisition	Disposal	Depreciation	Transfers	Impairment loss	Others	Ending balance
Land	691,423	–	(1,377)	–	186,630	–	(70)	876,606
Buildings	497,737	28,387	(1,486)	(32,452)	158,013	(12)	(330)	649,857
Leasehold improvements	60,967	21,616	(1,162)	(22,799)	2,142	–	289	61,053
Equipment and vehicles	135,809	76,872	(517)	(68,992)	858	–	(167)	143,863
Construction in progress	9,772	249,113	(261)	–	(249,649)	–	(464)	8,511
Others	46,287	–	(15,029)	–	–	–	–	31,258
Government grants	(86)	(44)	–	52	–	–	–	(78)
Right-of-use assets – real estate	548,398	291,957	(7,064)	(197,659)	–	–	(580)	635,052
Right-of-use assets – equipment and vehicles	13,326	10,159	(724)	(7,134)	–	–	(434)	15,193
Right-of-use assets – others	808	3,933	(62)	(1,038)	–	–	1,058	4,699
Total	2,004,441	681,993	(27,682)	(330,022)	97,994	(12)	(698)	2,426,014

<2021>

Classification	Beginning balance	Acquisition	Disposal	Depreciation	Transfers	Impairment loss	Others	Ending balance
Land	723,586	–	(6,272)	–	(24,084)	(1,852)	45	691,423
Buildings	533,926	14,431	(3,295)	(28,829)	(13,099)	(6,111)	714	497,737
Leasehold improvements	61,139	21,453	(1,151)	(21,746)	252	–	1,020	60,967
Equipment and vehicles	123,214	81,571	(1,119)	(69,598)	571	–	1,170	135,809
Construction in progress	7,207	217,492	(955)	–	(213,964)	–	(8)	9,772
Others	64,964	–	(18,677)	–	–	–	–	46,287
Government grants	(83)	(48)	–	45	–	–	–	(86)
Right-of-use assets – real estate	655,258	126,061	(46,011)	(198,620)	–	–	11,710	548,398
Right-of-use assets – equipment and vehicles	12,655	6,999	(759)	(6,742)	–	–	1,173	13,326
Right-of-use assets – others	146	–	(6)	(459)	–	–	1,127	808
Total	2,182,012	467,959	(78,245)	(325,949)	(250,324)	(7,963)	16,951	2,004,441

19. Investment properties

19-1 Details of investment properties as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	457,439	–	(3,125)	–	454,314
Buildings	367,958	(153,237)	(1,225)	(2,868)	210,628
Total	825,397	(153,237)	(4,350)	(2,868)	664,942

<December 31, 2021>

Classification	Acquisition cost	Accumulated depreciation	Accumulated impairment loss	Government grants	Book value
Land	412,527	–	(5,469)	–	407,058
Buildings	528,190	(138,683)	(3,620)	(2,256)	383,631
Total	940,717	(138,683)	(9,089)	(2,256)	790,689

19-2 Changes in investment property for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Beginning balance	Acquisition	Disposal	Depreciation	Transfer (*)	Ending balance
Land	407,058	—	(6,111)	—	53,367	454,314
Buildings	385,887	—	(7,690)	(13,340)	(151,361)	213,496
Government grants	(2,256)	(1,493)	—	881	—	(2,868)
Total	790,689	(1,493)	(13,801)	(12,459)	(97,994)	664,942

(*) The amount represents the change in the carrying amount of investment properties held by the Group due to the change in the ratio of lease occupancy.

<2021>

Classification	Beginning balance	Acquisition	Disposal	Depreciation	Transfer (*)	Impairment loss	Ending balance
Land	417,535	—	(34,886)	—	26,824	(2,415)	407,058
Buildings	200,440	—	(23,412)	(12,197)	223,500	(2,444)	385,887
Government grants	(1,977)	(849)	—	570	—	—	(2,256)
Total	615,998	(849)	(58,298)	(11,627)	250,324	(4,859)	790,689

(*) The amount represents the change in the carrying amount of investment properties held by the Group due to the change in the ratio of lease occupancy.

19-3 Details of valuation techniques for measuring investment property and inputs used in the measurement as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	Fair value(*)		Description of the valuation techniques	Inputs used in the fair value measurement
	December 31, 2022	December 31, 2021		
Land and Buildings	1,052,023	823,105	Appraised value of land, Estimates based on cost method	Appraised value of land, Refinancing cost

(*) The fair value of investment property is classified as Level 3 of fair value hierarchy as it reflects the most recent market transaction price, followed by individual third party transaction condition, and significant input factor, which is not predictable.

19-4 Rental income and operating expenses arising from the Group's investment properties for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	2022	2021
Rental income	9,608	8,485
Operating cost directly related to Investment properties that generate rental income	670	608

20. Intangible assets

20-1 Details of intangible assets as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Acquisition cost	Accumulated amortization	Accumulated impairment loss	Government grants	Book value
Goodwill	892	—	—	—	892
Industrial proprietary rights	2,588	(1,982)	—	—	606
Core deposits	5,265	(3,187)	—	—	2,078
Software	297,032	(214,775)	—	—	82,257
Systems development costs	1,081,185	(886,280)	—	(83)	194,822
Memberships	25,948	—	(2,933)	—	23,015
Others	273,367	(190,915)	(15)	—	82,437
Total	1,686,277	(1,297,139)	(2,948)	(83)	386,107

<December 31, 2021>

Classification	Acquisition cost	Accumulated amortization	Accumulated impairment loss	Government grants	Book value
Goodwill	892	—	—	—	892
Industrial proprietary rights	2,183	(1,670)	—	—	513
Core deposits	4,925	(2,609)	—	—	2,316
Software	269,422	(188,166)	—	—	81,256
Systems development costs	994,705	(820,899)	—	(115)	173,691
Memberships	23,220	—	(2,771)	—	20,449
Others	240,285	(162,817)	(14)	—	77,454
Total	1,535,632	(1,176,161)	(2,785)	(115)	356,571

20-2 Changes in the carrying amount of intangible assets for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Beginning balance	Acquisition	Disposal	Amortization	Impairment loss	Others	Ending balance
Goodwill	892	–	–	–	–	–	892
Industrial proprietary rights	513	398	–	(311)	–	6	606
Core deposits	2,316	–	–	(383)	–	145	2,078
Software	81,256	27,877	–	(26,844)	–	(32)	82,257
Systems development costs	173,806	87,655	–	(66,830)	–	274	194,905
Memberships	20,449	2,663	(15)	–	(220)	138	23,015
Others(*)	77,454	32,963	–	(28,232)	–	252	82,437
Government grants	(115)	–	–	32	–	–	(83)
Total	356,571	151,556	(15)	(122,568)	(220)	783	386,107

(*) Of the other intangible asset amortization costs, ₩26,977 million is included in other operating expenses.

<2021>

Classification	Beginning balance	Acquisition	Disposal	Amortization	Impairment loss	Others	Ending balance
Goodwill	892	–	–	–	–	–	892
Industrial proprietary rights	653	212	(70)	(276)	–	(6)	513
Core deposits	2,474	–	–	(339)	–	181	2,316
Software	62,552	42,331	(1,375)	(22,842)	–	590	81,256
Systems development costs	173,061	67,340	(2,155)	(64,719)	–	279	173,806
Memberships	19,323	1,666	(790)	–	–	250	20,449
Others(*)	88,864	15,140	(28)	(25,775)	(13)	(734)	77,454
Government grants	(103)	(41)	–	29	–	–	(115)
Total	347,716	126,648	(4,418)	(113,922)	(13)	560	356,571

(*) Of the other intangible asset amortization costs, ₩25,073 million is included in other operating expenses.

21. Non-current assets held for sale

21-1 Details of non-current assets held for sale as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Acquisition cost (*)	36,423	42,130
Accumulated impairment loss	–	–
Book value	36,423	42,130
Net fair value	36,423	42,130

(*) Acquisition cost is presented as net of accumulated depreciation before classification as non-current assets held for sale.

Non-current assets held-for-sale are composed of 132 collaterals acquired for the purpose of repayment of loans and one other of which the sale is currently in progress as of December 31, 2022.

22. Other assets and merchant banking account assets

22-1 Details of other assets as of December 31, 2022 and 2021 are as follows
(Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Guarantee deposits paid	632,878	692,509
Accounts receivable	6,615,170	8,155,868
Accrued income	1,574,847	874,907
Prepaid expenses	113,074	95,456
Suspense payments	269,386	231,035
Expenditures	1,873	2,018
Deposit money to court	8,783	8,706
Domestic exchange settlement debit	4,223,350	3,776,627
Other miscellaneous assets	78,015	36,845
Allowance for other assets	(11,421)	(9,241)
Total	13,505,955	13,864,730

22-2 Changes in the allowance for other assets for the years ended
December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	2022	2021
Beginning balance	9,241	8,056
Write-offs	(860)	(828)
Provision for allowance for possible losses	6,280	1,938
Sales of non-performing loans, etc.	(163)	(278)
Interest income on impaired assets	3	22
Collection of loans written off in prior year	1,025	2,684
Exchange rate fluctuation and others	(4,105)	(2,353)
Ending balance	11,421	9,241

22-3 Details of merchant banking account assets as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification		December 31, 2022	December 31, 2021
On-balance-sheet items:			
Merchant banking account-loans at FVTPL		198,790	758,436
Merchant banking account-debt securities at FVTPL		3,415,666	3,334,493
CMA assets	Debt securities at FVTPL	1,016,905	649,010
Total		4,631,361	4,741,939
Off-balance-sheet items:			
Commitment		620,000	790,000

23. Deposits

23-1 Details of deposit liabilities as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Demand deposits		
Demand deposits in Korean won	14,732,552	15,666,500
Demand deposits in foreign currency	40,871,143	35,039,951
Subtotal	55,603,695	50,706,451
Time and savings deposits		
Time and savings deposits in Korean won (*)	266,881,680	247,474,068
Time and savings deposits in foreign currency	24,320,573	16,563,802
Subtotal	291,202,253	264,037,870
Certificate of deposits	13,052,533	6,380,979
Total	359,858,481	321,125,300

(*) Time and savings deposits in Korean won include savings deposits (₩39,861,040 million as of December 31, 2022, and ₩50,710,876 as of December 31, 2021) and corporate savings deposits (₩57,322,227 as of December 31, 2022, and ₩57,639,719 as of December 31, 2021).

23-2 Allocations of deposit liabilities by customer as of December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Individuals	112,111,078	102,168,279
Corporations	129,975,988	111,932,043
Other banks	21,293,082	17,900,829
Public institutions	16,398,077	13,265,257
Other financial institutions	44,929,310	49,409,660
Government	8,206,272	5,924,293
Non-profit corporations	13,812,098	12,346,117

Classification	December 31, 2022	December 31, 2021
Foreign organizations	3,049,951	3,130,833
Others	10,082,625	5,047,989
Total	359,858,481	321,125,300

24. Financial liabilities at FVTPL

24-1 Details of financial liabilities at FVTPL as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Securities borrowed	323,661	143,044
Derivative liabilities held for trading	10,742,577	3,849,463
Total	11,066,238	3,992,507

24-2 Details of financial liabilities designated at FVTPL as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Deposits	162,069	195,600

Financial liabilities are at FVTPL in order to eliminate or significantly reduce a measurement or recognition inconsistency.

24-3 Difference between the book value and maturity amount of the financial liabilities designated at FVTPL as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Book value	162,069	195,600
Repayment amount at maturity	210,000	210,000
Difference	(47,931)	(14,400)

25. Borrowings

Details of Borrowings as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	Lenders	Annual interest rate (%)	December 31, 2022	December 31, 2021
Borrowings in Korean won				
BOK borrowings	BOK	0.25~1.75	5,085,245	4,473,504
Government borrowings	Korea Development Bank, etc.	0.50~5.61	2,061,794	1,932,544
Other borrowings	Korea Energy Management Corporation, etc.	0.00~3.43	3,584,732	3,479,514
Subtotal			10,731,771	9,885,562
Borrowings denominated in foreign currencies				
Bank overdrafts	Foreign banks, etc.	0.01~12.50	380,662	313,417
Other borrowings	OCBC, etc.	0.66~8.50	9,664,760	5,129,592
Subtotal			10,045,422	5,443,009
Call money				
Call money in foreign currencies	Shinhan Bank, etc	0.09~5.60	970,661	1,091,728
Bonds sold under repurchase agreements				
Bonds sold under repurchase agreements in Korean won	General customers	0.00	30	30
Bonds sold under repurchase agreements in foreign currencies	BBVA, Citi	5.55~5.60	487,702	1,078,541
Subtotal			487,732	1,078,571
Others				
Bills sold	General customers	0.00~4.39	26,063	25,610
Deferred origination costs			(5,052)	-
Total			22,256,597	17,524,480

26. Debentures

Details of debentures as of December 31, 2022 and 2021, are as follows
(Korean won in millions):

Classification	Lenders	Annual interest rate (%)	December 31, 2022	December 31, 2021
Debentures in Korean won				
Debentures	Institutions	0.69~4.20	16,330,000	16,450,000
Subordinated debentures	Institutions, etc.	2.14~4.76	4,071,139	5,275,139
Net gain (loss) on fair value hedges (current period)			(26,241)	(6,345)
Net gain (loss) on fair value hedges (prior to previous fiscal year)			(10,497)	(4,152)
Less present value discount			(5,804)	(11,488)
Subtotal			20,358,597	21,703,154
Debentures in foreign currencies				
Debentures	Institutions	0.01~5.55	5,115,126	5,009,893
Subordinated debentures	Institutions, etc.	4.25~9.95	1,042,641	977,378
Net loss (gain) on fair value hedges (current period)			(290,369)	(93,621)
Net gain (loss) on fair value hedges (prior to previous fiscal year)			15,583	109,935
Less present value discount			(8,239)	(6,982)
Subtotal			5,874,742	5,996,603
Total			26,233,339	27,699,757

27. Net defined benefit liabilities (assets)

27-1 Details of net defined benefit liabilities (assets)

Details of net defined benefit liabilities (assets) as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Present value of defined benefit obligation	1,996,586	2,027,138
Fair value of plan assets	(2,064,640)	(1,850,061)
Net defined benefit liabilities	9,106	177,077
Net defined benefit assets	77,160	—

27-2 Defined benefit obligation

27-2-1 Changes in present value of defined benefit obligation

Changes in present value of defined benefit obligation for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Beginning balance	2,027,138	2,085,176
Current service cost	138,218	151,562
Interest cost	49,398	39,390
Remeasurements	(19,141)	(73,053)
Benefits paid	(198,401)	(177,187)
Changes due to transference between affiliates	(765)	887
Others	139	363
Ending Balance	1,996,586	2,027,138

27-2-2 Total costs recognized in accordance to defined benefit plans

Total costs incurred in relation to defined benefit pension plans for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Current service cost	138,218	151,562
Interest cost	49,398	39,390
Interest income on plan assets	(43,270)	(32,432)
Total	144,346	158,520

27-2-3 Weighted average duration of defined benefit obligation as of December 31, 2022 and 2021, is 7.66 years and 10.05 years, respectively.

27-3 Actuarial assumptions

27-3-1 Principal assumptions for actuarial valuation method as of December 31, 2022 and 2021, are as follows:

<December 31, 2022>

Classification	Rate (%)	Content
Demographic assumptions		
Death rate	0.003~0.063	Korea Insurance Development Institute
Retirement rate	6.10	—
Financial assumptions		
Wage growth rate	5.80	Average of past 5 years
Discounting rate	5.15	Return rate of AAA corporate bond

<December 31, 2021>

Classification	Rate (%)	Content
Demographic assumptions		
Death rate	0.003~0.063	Korea Insurance Development Institute
Retirement rate	4.60	—
Financial assumptions		
Wage growth rate	5.80	Average of past 5 years
Discounting rate	2.55	Return rate of AAA corporate bond

27-3-2 Present values of defined benefit obligations based on changes in the principal actuarial assumptions as of December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	Present value of defined benefit obligations	Increase by 1%	Decrease by 1%
Discounting rate	1,996,586	1,837,975	2,124,835
Wage growth rate	1,996,586	2,127,792	1,833,138

<December 31, 2021>

Classification	Present value of defined benefit obligations	Increase by 1%	Decrease by 1%
Discounting rate	2,027,138	1,814,982	2,206,338
Wage growth rate	2,027,138	2,204,679	1,812,918

27-4 Plan assets

27-4-1 Changes in the fair value of plan assets plans for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Beginning balance	1,850,061	1,796,773
Employer contributions	308,653	135,788
Interest income on plan assets	43,270	32,432
Remeasurements of the net defined benefit liabilities	(10,300)	(8,388)
Benefit paid	(126,204)	(107,288)
Changes due to transference between affiliates	(840)	744
Ending balance	2,064,640	1,850,061

27-4-2 Details of plan assets

Details of plan assets as of December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	Active market existing	Active market not existing	Total
Time deposits	—	2,060,339	2,060,339
Others	—	4,301	4,301
Total	—	2,064,640	2,064,640

<December 31, 2021>

Classification	Active market existing	Active market not existing	Total
Time deposits	–	1,735,131	1,735,131
Others	–	114,930	114,930
Total	–	1,850,061	1,850,061

27-4-3 The Group expects to contribute ₩122,586 million in next year, in relation to the defined benefit plans.

27-5 Remeasurements of the net defined benefit liabilities

Remeasurements of the net defined benefit liabilities as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Actuarial gains and losses		
Effects on changing financial assumptions	425,234	94,686
Effects on changing demographic assumptions	(337,902)	–
Others	(68,191)	(20,872)
Subtotal	19,141	73,814
Return on plan assets		
Actual return on plan assets	32,971	24,044
Amount included in net interest of net defined benefit liabilities	(43,271)	(32,432)
Subtotal	(10,300)	(8,388)
Total	8,843	65,426

28. Contingent liabilities, agreements and provisions

28-1 Details of provisions as of December 31, 2022 and 2021, are as follows
(Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Provision for payment guarantees:		
Financial guarantee contracts (*)	449	147
Non-financial guarantee contracts	81,450	34,887
Bills endorsed	13	15
Subtotal	81,912	35,049
Provision for unused commitments	56,480	61,879
Other provisions:		
Provision for restoration	51,596	54,894
Provision for lawsuits	43,215	77,734
Others	331,775	289,408
Subtotal	426,586	422,036
Total	564,978	518,964

(*) The Group recognizes the amount exceeding the unamortized amount of the initial fair value at subsequent measurement of the financial guarantee contracts as provisions for payment guarantees. The Group recognizes the unamortized amount as financial guarantee contract liabilities in the amount of ₩14,843 million and ₩12,047 million as of December 31, 2022 and 2021, respectively.

28-2 Changes in provision for unused commitments for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Unused commitments			Total
	12-month expected credit loss	Lifetime expected credit losses		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	41,221	19,270	1,388	61,879
Transfer to 12-month expected credit loss	1,488	(1,463)	(25)	–
Transfer to non-credit-impaired loan	(860)	869	(9)	–
Transfer to credit-impaired loan	(10)	(10)	20	–
Provision for (reversal of) (*)	(4,266)	324	595	(3,347)
Changes in exchange rates	(2,169)	117	–	(2,052)
Ending balance	35,404	19,107	1,969	56,480

(*) As of December 31, 2022, in order to expand loss absorption capacity in growing economic uncertainty worldwide, the bank has accumulated an additional ₩186 million won in allowances for financial support interest and deferred repayment loans for small and medium-sized companies and small business owners affected by COVID-19. The additional allowances include ₩0.15 million in impact of Stage 2 classification of principal and interest deferred borrowers.

<2021>

Classification	Unused commitments			Total
	12-month expected credit loss	Lifetime expected credit losses		
		Non-credit-impaired loan	Credit-impaired loan	
Beginning balance	48,900	24,300	1,522	74,722
Transfer to 12-month expected credit loss	2,135	(1,400)	(735)	–
Transfer to non-credit-impaired loan	(1,436)	1,493	(57)	–
Transfer to credit-impaired loan	(12)	(12)	24	–
Provision (reversal of)	(8,473)	(5,183)	633	(13,023)
Changes in exchange rates	107	72	1	180
Ending balance	41,221	19,270	1,388	61,879

28-3 Changes in provision for financial guarantee contracts for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

<2022>

Classification	Financial guarantee contracts			Total
	12-month expected credit loss	Lifetime expected credit losses		
		Non-credit- impaired loan	Credit-impaired loan	
Beginning balance	133	14	—	147
Transfer to 12-month expected credit loss	1	(1)	—	—
Transfer to non-credit-impaired loan	(11)	11	—	—
Transfer to credit-impaired loan	—	—	—	—
Provision (*)	46	253	—	299
Changes in exchange rates	3	—	—	3
Ending balance	172	277	—	449

(*) As of December 31, 2022, in order to expand loss absorption capacity in growing economic uncertainty worldwide, the Bank has accumulated an additional ₩198 million won in allowances for financial support interest and deferred repayment loans for small and medium-sized companies and small business owners affected by COVID-19.

<2021>

Classification	Financial guarantee contracts			Total
	12-month expected credit loss	Lifetime expected credit losses		
		Non-credit- impaired loan	Credit-impaired loan	
Beginning balance	194	13	—	207
Transfer to 12-month expected credit loss	1	(1)	—	—
Transfer to non-credit-impaired loan	(1)	1	—	—
Transfer to credit-impaired loan	—	—	—	—
Reversal	(79)	—	—	(79)
Changes in exchange rates	18	1	—	19
Ending balance	133	14	—	147

28-4 Changes in other provisions for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

<2022>

Classification	Beginning balance	Provision (reversal of)	Used	Others	Ending balance
Non-financial payment guarantees	34,902	44,623	–	1,938	81,463
Other provisions					
Provision for restoration	54,894	(1,314)	(2,960)	976	51,596
Provision for lawsuits	77,734	(19,236)	(15,954)	671	43,215
Others	289,408	64,238	(21,428)	(443)	331,775
Subtotal	422,036	43,688	(40,342)	1,204	426,586
Total	456,938	88,311	(40,342)	3,142	508,049

<2021>

Classification	Beginning balance	Provision (reversal of)	Used	Others	Ending balance
Non-financial payment guarantees	32,540	(1,025)	–	3,387	34,902
Other provisions					
Provision for restoration	67,134	477	(15,821)	3,104	54,894
Provision for lawsuits	59,203	18,600	(449)	380	77,734
Others	249,193	50,558	(10,427)	84	289,408
Subtotal	375,530	69,635	(26,697)	3,568	422,036
Total	408,070	68,610	(26,697)	6,955	456,938

28-5 Details of financial and payment guarantees as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	Guarantee balance	
	December 31, 2022	December 31, 2021
Financial guarantee contracts in Korean won:		
Payment guarantees for issuance of debentures	94,500	71,000
Payment guarantees for collateral for loans	43,130	45,253
Payment guarantees for purchasing loans	307,369	249,240
Subtotal	444,999	365,493
Financial guarantees in foreign currencies:		
Local financial payment guarantees	2,725	2,549
Confirmed payment guarantees in Korean won	2,446,127	1,857,587
Confirmed payment guarantees in foreign currencies:		
Acquisition of letter of credit	2,213,888	2,189,997
Acceptance on letter of guarantees	101,659	91,942
Others	10,215,065	7,505,690
Subtotal	12,530,612	9,787,629
Contingent payment guarantees:		
Letters of credit	4,080,758	4,114,571
Others	1,575,953	730,839
Subtotal	5,656,711	4,845,410
Bills endorsed	10,707	12,082
Total	21,091,881	16,870,750

28-6 Commitments

Details of unused commitments as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	Unused commitments balance	
	December 31, 2022	December 31, 2021
Commitments on loans in Korean won	60,462,709	57,398,397
Commitments on loans in foreign currencies	28,960,160	23,829,959
Commitments on credit lines on asset-backed securities (*)	85,200	247,596
Commitments on purchase of securities (*)	11,875,336	9,342,981
Commitments on discounted notes from Merchant Banking	620,000	790,000
Total	102,003,405	91,608,933

(*) The financial guarantee contracts for the year ended December 31, 2022 and 2021 amount to ₩10,565,130 million and ₩8,784,258 million, respectively.

28-7 Lawsuits

As of December 31, 2022, the Group is involved in 240 lawsuits as a plaintiff and 159 lawsuits as a defendant. The aggregate amounts of claims as plaintiff and defendant are ₩294,385 million and ₩307,288 million, respectively. The Group recognizes provisions in consideration of the likelihood of winning a lawsuit.

The Group's major lawsuits in progress as a defendant are summarized as follows (Korean won in millions):

Plaintiff	Amount	Status of lawsuit		Content
		First trial	On appeal	
F*****Bankruptcy administrator	42,573	Won	In progress (Second trial)	Return of an illicit gain
****Securities Co., Ltd.	37,136	Won	In progress (Second trial)	Compensation for damages
****Investments Co., Ltd.	16,798	Won	Partial won (second trial) In progress (Third trial)	Compensation for damages
****Cooperation Co., Ltd.	15,000	In progress	—	Return of an illicit gain
****Securities Co., Ltd.	10,000	In progress	—	Compensation for damages

28-8 Due to the spread of COVID-19, major economic factors are expected to worsen due to the domestic and international economic slowdown in domestic and ripple effects of financial instability. Considering the possibility of entering a global recession caused by the global spread of COVID-19, the economic forecast scenario used to estimate expected credit losses for financial instruments has been reset. As of December 31, 2022, the Group has remeasured forward-looking information by using macro variables and estimated default rates based on the scenario. The Group also set aside additional provisions through the inspection and credit rating adjustment of COVID-19 risk industries and collected additional provisions by conservatively evaluating individual cash flows . The Group manages exposure to high-risk industries and high-risk affiliates/companies, and preemptively responds to future credit risk risks by classifying borrowers of deferred interest payments of COVID-19 as targets for full-term credit losses.

In addition, the key assumptions used by financial instruments were based on fair values calculated based on the estimated assumptions taking into account the impact of COVID-19 as of the end of the current year. The Group has prepared the consolidated financial statements by reasonably estimating the impact of COVID-19 on the consolidated financial statements for the reporting period ended on December 31, 2022. However, the ultimate impact of the future spread of COVID-19 on the consolidated financial position, financial performance and cash flows of the Group cannot be predicted.

28-9 In connection with the Ukraine crisis in February 2022, international sanctions against the Russian Federation of the international community could affect companies and individuals subject to sanctions, as well as companies, industries and economies that do business directly or indirectly with Russia. This Case is non-adjusting events after the reporting period. As of the settlement date, the Bank expects to have a financial impact on the business of KEB RUS LLC, a subsidiary of Russia, but cannot reasonably predict the estimate.

29. Other liabilities and merchant banking account liabilities

29-1 Details of other liabilities as of December 31, 2022 and 2021, are as follows
(Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Accounts payable from trust accounts	7,895,817	5,874,089
Foreign exchange settlement credits	937,940	585,628
Domestic exchange settlement credits	5,503,827	6,172,698
Accounts payables	6,936,315	8,426,296
Accrued expenses	2,758,991	1,358,856
Unearned revenue	127,583	61,075
Deferred revenue	–	7
Deposits for letter of guarantees and others	1,877,691	500,949
Suspense payables	75,021	54,680
Taxes withheld	129,209	71,441
Security subscriptions	281,894	74,371
Accounts for agency businesses	190,874	352,697
Liability incurred by agency relationship	2,869,079	2,332,083
Lease liabilities	667,779	561,562
Financial guarantee contracts	14,843	12,047
Other liabilities	13,176	27,354
Total	30,280,039	26,465,833

29-2 Details of merchant banking account liabilities as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Merchant banking account deposits	3,666,199	2,908,071
Other merchant banking account liabilities (*)	1,074	209
Total	3,667,273	2,908,280

(*) Including accrued expenses

29-3 Details of lease liabilities as of December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	Face amount	Present value discount	Book value
Real estate for business purpose	731,006	(83,957)	647,049
Equipment and vehicles	16,542	(709)	15,833
Other assets	5,136	(239)	4,897
Total	752,684	(84,905)	667,779

<December 31, 2021>

Classification	Face amount	Present value discount	Book value
Real estate for business purpose	609,022	(61,228)	547,794
Equipment and vehicles	13,667	(333)	13,334
Other assets	445	(11)	434
Total	623,134	(61,572)	561,562

29-4 Changes in lease liabilities for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Beginning balance	Increase	Depreciation	Paid (*)	Others	Ending balance
Real estate for business purpose	547,794	296,367	15,440	(206,537)	(6,015)	647,049
Equipment and vehicles	13,334	10,077	311	(7,768)	(121)	15,833
Other assets	434	5,444	106	(928)	(159)	4,897
Total	561,562	311,888	15,857	(215,233)	(6,295)	667,779

(*) Total cash outflow related to lease liabilities for the year ended December 31, 2022, is ₩215,137 million.

<2021>

Classification	Beginning balance	Increase	Depreciation	Paid (*)	Others	Ending balance
Real estate for business purpose	660,338	115,761	11,033	(211,701)	(27,637)	547,794
Equipment and vehicles	12,993	6,890	217	(8,437)	1,671	13,334
Other assets	150	—	21	(455)	718	434
Total	673,481	122,651	11,271	(220,593)	(25,248)	561,562

(*) Total cash outflows related to lease liabilities for the year ended December 31, 2021, is ₩220,521 million.

29-5 Details of contractual cash flows before discounting the lease liabilities by remaining maturity as of December 31, 2022 and 2021, are as follows (Korean won in millions):

<December 31, 2022>

Classification	Less than 1 month	1 – 3 months	3 – 6 months	6 months – 1 year	1 year – 5 years	More than 5 years	Total
Real estate for business purpose	17,783	33,018	48,965	91,886	315,184	224,170	731,006
Equipment and vehicles	643	1,230	1,708	3,144	9,817	–	16,542
Other assets	184	235	418	852	3,447	–	5,136
Total	18,610	34,483	51,091	95,882	328,448	224,170	752,684

<December 31, 2021>

Classification	Less than 1 month	1 – 3 months	3 – 6 months	6 months – 1 year	1 year – 5 years	More than 5 years	Total
Real estate for business purpose	18,867	35,392	47,990	88,674	193,922	224,177	609,022
Equipment and vehicles	670	1,172	1,374	2,472	7,979	–	13,667
Other assets	77	21	99	119	129	–	445
Total	19,614	36,585	49,463	91,265	202,030	224,177	623,134

30. Capital stock and other paid-in capital

30-1 Details of capital stock as of December 31, 2022 and 2021, are as follows (Korean won in millions and shares):

Classification	December 31, 2022	December 31, 2021
Number of shares authorized	2,000,000,000	2,000,000,000
Par value per share (In Korean won)	₩5,000	₩5,000
Number of shares issued	1,071,915,717	1,071,915,717
Common stock	5,359,578	5,359,578

30-2 Details of capital surplus and capital adjustments as of December 31, 2022 and 2021, are as follows (Korea won in millions):

Classification	December 31, 2022	December 31, 2021
Capital surplus (*)	6,159,820	9,653,868
Capital adjustments		
Stock option	17	2
Others	(37,703)	(38,281)
Subtotal	(37,686)	(38,279)
Total	6,122,134	9,615,589

(*) As of December 31, 2022, the Group capital surplus includes the amount recognized at the time of the business combination under common control. In addition, if the total amount of capital reserve (capital surplus) and legal reserve in Article 461-2 of the Commercial Act exceeds 1.5 times the capital share, the capital reserve (capital surplus) and legal reserve can be reduced within the range of the exceeding amount according to the resolution of the general meeting. Consequently, the Bank, through the resolution of the general meeting on December 14, 2022, reduced ₩ 3,500,000 million of capital surplus and transferred it to retained earnings.

30-3 Details of hybrid securities as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	Issuance date	Expiry date	Annual interest rate (%)	December 31, 2022	December 31, 2021
Hybrid securities in Korean won	2013-10-25	2043-10-25	5.45	179,737	179,737
Hybrid securities in foreign currencies	2021-10-19	—	3.50	353,738	353,738
Total				533,475	533,475

The Group can repay the above hybrid securities early after five or 10 years after the issuance date, and can extend the maturity under the same terms on the expiry date.

31. Accumulated other comprehensive income (loss)

Changes in accumulated other comprehensive income (loss) for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

<2022>

Classification	Beginning balance	Increase (decrease) (excluding reclassification and transfer of retained earnings)	Transfer of retained earnings	Changes in equity in subsidiaries	Reclassification (*)	Tax effects	Ending balance
Gain (loss) on valuation of financial assets at FVOCI	(387,864)	(840,352)	3,692	(53)	(8,956)	214,886	(1,018,647)
Changes in equity of investments in associates	73,448	1,132	—	—	—	816	75,396
Gain (loss) on valuation of net investment hedges of foreign operations	(29,294)	(28,315)	—	—	—	7,787	(49,822)
Exchange differences on translation of foreign operations	(89,441)	7,555	—	97	—	(2,397)	(84,186)
Gain (loss) on valuation of fair value hedges	(13,123)	(16,360)	—	—	—	4,499	(24,984)
Remeasurement of defined benefit plans	(469,703)	8,860	—	—	—	(2,447)	(463,290)
Total	(915,977)	(867,480)	3,692	44	(8,956)	223,144	(1,565,533)

(*) Loss on valuation of financial assets at FVOCI and changes in equity of investments in associates recognized as accumulated other comprehensive income (loss) is reclassified due to disposal of financial assets at FVOCI.

<2021>

Classification	Beginning balance	Increase (decrease) (excluding reclassification and transfer of retained earnings)	Transfer of retained earnings	Reclassification (*)	Tax effects	Ending balance
Gain (loss) on valuation of financial assets at FVOCI	(46,436)	(320,675)	(51,211)	(101,306)	131,764	(387,864)
Changes in equity of investments in associates	(97,765)	236,155	—	—	(64,942)	73,448
Gain (loss) on valuation of net investment hedges of foreign operations	11,494	(56,259)	—	—	15,471	(29,294)
Exchange differences on translation of foreign operations	(353,390)	282,421	—	—	(18,472)	(89,441)
Gain (loss) on valuation of fair value hedges	1,015	(19,500)	—	—	5,362	(13,123)
Remeasurement of defined benefit plans	(517,110)	65,190	—	—	(17,783)	(469,703)
Total	(1,002,192)	187,332	(51,211)	(101,306)	51,400	(915,977)

(*) Loss on valuation of financial assets at FVOCI and changes in equity of investments in associates recognized as accumulated other comprehensive income (loss) is reclassified due to disposal of financial assets at FVOCI.

32. Retained earnings

32-1 Details of retained earnings as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Legal reserve		
Earned surplus reserve (*1)	2,050,800	1,812,700
Voluntary reserve		
Revaluation reserves on property, plant and equipment (*2)	203,998	211,060
Other reserves (*3)	87,276	174,641
Regulatory reserve for bad debts (*4)	2,617,149	2,306,671
Other voluntary reserves	5,450,200	5,432,681
Subtotal	8,358,623	8,125,053
Unappropriated retained earnings	8,826,892	3,959,564
Total	19,236,315	13,897,317

(*1) Article 40 of the Banking Law of the Republic of Korea requires the Group to appropriate at least 10% of net income after income tax to legal reserve in every time to pay dividends, until such reserve equals 100% of its paid-in capital.

(*2) The Group records gains from revaluation of property, plant and equipment previously recognized as other comprehensive income to the voluntary reserve, as it applies the revaluation amount as deemed cost at the first-time adoption of K-IFRS. The reserve is recognized in distributable retained earnings when the relevant property, plant and equipment are disposed.

(*3) Relevant Japanese regulations require the Group's overseas branches located in Japan to appropriate a minimum of 10% of net income for the period as a legal reserve, until the reserve equals ¥2,000 million. This reserve is restricted to be used upon liquidation of the Japanese branches. Chennai, Panama, Singapore, Hong Kong, Hanoi and Ho Chi Minh branches' statutory reserves are included in other reserves in accordance with India, Panama, Singapore and Vietnam's regulations.

(*4) The Group has provided allowances for possible loan losses in accordance with K-IFRS. The difference in this amount and the provision for possible loan and other asset losses accumulated in accordance with the minimum accumulation ratio required by FSS is reserved as regulatory reserve for bad debts.

32-2 Changes in appropriated retained earnings for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Beginning balance	13,897,317	12,414,342
Net income	3,095,845	2,570,361
Dividends	(1,230,400)	(1,114,700)
Dividends on hybrid equity securities	(23,770)	(9,814)
Reclassification of valuation gain on equity securities at FVOCI upon derecognition	(2,677)	37,128
Capital surplus income	3,500,000	—
Ending balance	19,236,315	13,897,317

32-3 Dividends

Details of calculation on common stock dividends for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions and shares in units):

Classification	2022(*1)	2021
Number of shares	1,071,915,717	1,071,915,717
Par value per share (In Korean won)	₩5,000	₩5,000
Par dividend ratio	27.05%	19.78%
Dividend per share (In Korean won)	₩1,352.72	₩989.25
Dividends	1,450,000	1,060,400
Net income (*2)	3,095,845	2,570,361
Dividend pay-out ratio based on net income	46.84%	41.25%
Adjusted income after deducting provisions for bad debt reserve (*2)	3,119,771	2,282,608
Dividends pay-out ratio based on adjusted income after deducting provisions for bad debt	46.48%	46.46%

(*1) Dividends for 2022 will be submitted to the general board of directors meeting scheduled for March 23, 2023.

(*2) Adjusted income after deducting provisions for bad debt reserve is based on the controlling company's shares.

33. Regulatory reserve for bad debts

Regulatory reserve for bad debt is calculated and disclosed in accordance with Article 29, Section 1 and 2 of Regulation on Supervision of Banking Business of the Republic of Korea.

33-1 Details of regulatory reserve for bad debts as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Beginning balance	2,714,034	2,426,281
Planned provision for (reversal of) bad debts	(23,926)	287,753
Ending balance	2,690,108	2,714,034

33-2 Provisions for (Reversal of) bad debt reserve and income adjusted for deductions of provisions for bad debt for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Net income attributable to equity holders of the parent company before deducting provisions for bad debt	3,095,845	2,570,361
Provision for (Reversal of) bad debt reserve	23,926	(287,753)
Adjusted income after deducting provisions for bad debt	3,119,771	2,282,608
Basic EPS adjusted after reflecting reserve for bad debt (*1) (In Korean won)	₩2,888	₩2,120
Diluted EPS adjusted after reflecting reserve for bad debt (*2) (In Korean won)	₩2,888	₩2,120

(*1) The dividend on hybrid equity securities in the amount of ₩23,770 million and ₩9,814 million for the years ended December 31, 2022 and 2021, respectively, was deducted from the adjusted income after reflecting the bad debt reserve for the calculation of earnings per share after reflecting reserve for bad debt for each period.

(*2) Since the Bank does not have dilutive potential ordinary stock, basic EPS is the same as diluted earnings per share.

34. Operating income and operating expenses

34-1 Operating income for the years ended December 31, 2022 and 2021, is as follows (Korean won in millions):

Classification	2022	2021
Interest income	13,347,231	8,786,664
Fees and commission income	874,721	837,656
Gains on financial instruments at FVTPL	31,421,014	15,513,403
Gains on fair value hedging derivative instruments	397,349	125,097
Gains on financial instruments at FVOCI	10,551	85,575
Gains on financial instruments at amortized cost	4	20
Changes in credit risk loss for financial instruments	603	194
Other operating income	7,615,689	4,791,160
Total	53,667,162	30,139,769

34-2 Operating expenses for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Interest expenses	5,738,554	2,636,067
Fees and commission expenses	281,109	284,862
Loss on financial instruments at FVTPL	31,296,313	14,964,836
Loss on fair value hedging derivative instruments	460,900	172,783
Loss on financial instruments at FVOCI	8,389	6,315
Changes of credit risk losses in financial assets	658,252	243,533
General and administrative expenses	3,318,831	2,973,063
Other operating expenses	7,838,212	5,439,873
Total	49,600,560	26,721,332

35. Net interest income

35-1 Interest income for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Interest income in accordance with the effective interest rate method		
Interest income on due from banks	277,868	63,408
Interest income on loans	11,761,608	7,838,715
Interest income on financial assets at FVOCI	544,009	441,497
Interest income on securities at amortized cost	698,892	403,373
Subtotal	13,282,377	8,746,993
Interest income on financial instruments at FVTPL	64,854	39,671
Total	13,347,231	8,786,664

35-2 Interest expenses for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Interest expense on deposit liabilities	4,558,562	2,041,287
Interest expense on borrowings	342,306	106,801
Interest expenses on financial instruments at FVTPL	4,045	4,591
Interest expense of debentures	671,472	438,438
Interest expense of lease liabilities	15,857	11,272
Others	146,312	33,678
Total	5,738,554	2,636,067

36. Net fees and commission income

36-1 Fees and commission income for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Commissions received from loans and others	521,833	523,884
Commissions received on payment guarantees	89,740	78,364
Commissions related to foreign exchange	263,148	235,408
Total	874,721	837,656

36-2 Fees and commission expenses for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Commissions paid	226,715	198,005
Commissions related to foreign exchange	54,394	86,857
Total	281,109	284,862

37. Net gain (loss) from financial instruments at FVTPL

37-1 Details of gain (loss) on financial instruments at FVTPL for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Gain on financial instruments at FVTPL		
Financial instruments at FVTPL		
Gain on valuation	138,271	111,611
Gain on disposals	35,850	51,321
Subtotal	174,121	162,932
Derivatives instruments held for trading		
Gain on valuation of derivatives		
Gain on currency-related derivatives	8,065,307	4,931,244
Gain on interest rate-related derivatives	908,399	303,789
Gain on stock-related derivatives	3,333	2,394
Others	—	1,959
Subtotal	8,977,039	5,239,386
Gain on transaction of derivatives		
Gain on currency-related derivatives	16,472,062	7,837,014
Gain on interest rate-related derivatives	5,744,598	2,253,170
Gain on stock-related derivatives	13,394	4,340
Subtotal	22,230,054	10,094,524
Gain on securities sold	6,269	6,491
Total	31,387,483	15,503,333
Loss on financial instruments at FVTPL		
Financial instruments at FVTPL		
Loss on valuation	253,836	90,766
Loss on disposals	106,893	59,870
Others	1,408	157
Subtotal	362,137	150,793
Derivatives instruments held-for-trading		
Loss on valuation of derivatives		
Loss on currency-related derivatives	8,742,678	4,911,052
Loss on interest rate-related derivatives	1,080,768	492,489
Loss on stock-related derivatives	23,154	2,012

Classification	2022	2021
Others	3,020	—
Subtotal	9,849,620	5,405,553
Loss on transaction of derivatives		
Loss on currency-related derivatives	16,406,795	7,441,737
Loss on interest rate-related derivatives	4,660,249	1,956,104
Loss on stock-related derivatives	9,687	5,479
Subtotal	21,076,731	9,403,320
Loss on securities sold	7,825	4,758
Total	31,296,313	14,964,424
Net amount	91,170	538,909

37-2 Details of gain (loss) on financial instruments designated at FVTPL for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	2022	2021
Gain on financial instruments designated at FVTPL		
Deposits		
Gain on valuation	33,531	10,058
Gain on disposals	—	12
Total	33,531	10,070
Loss on financial instruments designated as at FVTPL		
Deposits		
Loss on disposals	—	412
Total	—	412
Net amount	33,531	9,658

38. Gain (loss) on derivative financial instruments used for hedging

Gain (loss) on derivative instruments used for hedging for the years ended December 31, 2022 and 2021, is as follows (Korean won in millions):

Classification	2022	2021
Gain on hedged item		
Gain on valuation		
Gain on valuation of debentures	320,975	99,966
Gain on valuation of deposits	71,015	16,558
Subtotal	391,990	116,524
Gain on transaction		
Gain on transaction of debentures	731	4,012
Gain on transaction of deposits	—	426
Subtotal	731	4,438
Derivative instruments used for hedging		
Gain on valuation of derivatives		
Gain on valuation of currency-related derivatives	—	3,534
Gain on transaction of derivatives		
Gain on transaction of currency-related derivatives	2,048	594
Gain on transaction of interest-related derivatives	2,580	7
Subtotal	4,628	601
Total	397,349	125,097
Loss on hedged item		
Loss on valuation		
Loss on valuation of debentures	4,365	—
Loss on transaction		
Loss on transaction of debentures	—	887
Derivative instruments used for hedging		
Loss on valuation of derivatives		
Loss on valuation of currency-related derivatives	129,661	67,910
Loss on valuation of interest-related derivatives	325,170	99,231

Classification	2022	2021
Subtotal	454,831	167,141
Loss on transaction of derivatives		
Loss on transaction of currency-related derivatives	90	991
Loss on transaction of Interest-related derivatives	1,614	3,764
Subtotal	1,704	4,755
Total	460,900	172,783
Net amount	(63,551)	(47,686)

39. Gain (loss) on financial instruments at FVOCI

Details of gain (loss) on financial instruments designated at FVOCI for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Gain on disposal of financial instruments at FVOCI	10,551	85,575
Loss on disposal of financial instruments at FVOCI	8,389	6,315
Net amount	2,162	79,260

40. Gain (loss) on financial instruments at amortized cost

Details of gain (loss) on financial instruments designated at amortized cost for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

Classification	2022	2021
Gain on disposal of financial instruments at amortized cost	4	20

The Group disposed of some securities at amortized cost in accordance with the exercise of an option (put option) by the issuer of the securities for the year ended December 31, 2022.

41. Provision for (Reversal of) credit loss

Provision for (Reversal of) bad debts due to the change in credit loss for the years ended December 31, 2022 and 2021, is as follows (Korean won in millions):

Classification	2022	2021
Provision for (Reversal of) credit loss of debt securities at FVOCI	(603)	(194)
Provision for possible loan loss for debt securities at amortized cost	66,966	10,282
Provision for bad debts of loan losses	585,006	231,313
Provision for (Reversal of) bad debts of other asset losses	6,280	1,938
Total	657,649	243,339

42. General and administrative expenses

General and administrative expenses for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Salaries	1,615,246	1,618,235
Retirement benefits—defined benefits plans	144,346	158,520
Retirement benefits—defined contribution plans	261	208
Termination benefits	177,008	1,987
Employee welfare benefits	100,551	79,738
Depreciation	342,481	337,576
Amortization	95,591	88,850
Rental fees (*)	51,099	54,621
Entertainment expenses	16,455	15,266
Taxes and dues	121,087	93,843
Advertising expenses	181,095	109,461
Others	473,611	414,758
Total	3,318,831	2,973,063

(*) There is no amount corresponding to small lease expenses for the year ended December 31, 2022, and the amount corresponding to small lease expenses for the year ended December 31, 2021, was ₩72 million.

43. Other operating income

Details of other operating income for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Gain on disposal of loans	22,954	43,945
Reversal of payment guarantees	–	1,104
Reversal of allowances for unused commitments	3,347	13,023
Reversal of other allowances	20,228	–
Trust commissions	177,573	167,404
Gain on foreign exchange transaction	7,170,247	4,347,762
Gain on merchant banking accounts (*)	119,943	46,395
Dividend income	10,798	11,407
Others	90,599	160,120
Total	7,615,689	4,791,160

(*) Details of gain on merchant banking accounts for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Interest income	93,710	24,628
Fees and commission income	492	375
Gain on disposal of debt securities at FVTPL	1,897	1,796
Gain on valuation of debt securities at FVTPL	910	–
Gain on valuation of CMA securities	103	–
Gain on disposal of bills	22,831	19,596
Total	119,943	46,395

44. Other operating expenses

Details of other operating expenses for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Loss on disposal of loans	3,070	12
Provision for unused commitments	44,922	–
Provisions for other allowances	–	18,600
Contribution to Korea Credit Guarantee Fund	409,833	369,238
Insurance fee on deposit	449,567	443,482
Loss on foreign exchange transaction	6,794,255	4,553,986
Loss on merchant banking accounts (*)	89,351	20,853
Others	47,214	33,702
Total	7,838,212	5,439,873

(*) Details of loss on merchant banking accounts for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Interest expenses	89,351	20,402
Others	–	451
Total	89,351	20,853

45. Non-operating income

Details of non-operating income for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Rental fee income	9,608	8,485
Gain on disposal of property, plant and equipment	6,202	11,168
Gain on disposal of investment properties	7,241	22,811
Gain on disposal of intangible assets	–	37
Gain on disposal of investments in associates and a joint venture	3,414	389
Gain on equity method	221,832	136,687
Gain on termination of right-of-use assets	1,511	1,677
Others	17,485	56,599
Total	267,293	237,853

46. Non-operating expenses

Details of non-operating expenses for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Loss on disposal of property and equipment	1,146	5,128
Loss on impairment of property and equipment	12	7,963
Loss on disposal of investment properties	1,044	4,608
Loss on impairment of investment properties	–	4,859
Loss on disposal of intangible assets	–	1,304
Loss on impairment of intangible assets	220	13
Loss on equity method	32,819	9,015
Collection expenses for written-off claims	1,741	1,578
Collection commissions for written-off claims	5,455	6,204
Loss on disposal of investments in associates	1,099	5,901
Loss on impairment of investments in associates	520	628
Loss on termination of right-of-use assets	1,871	4,310
Donations	42,321	54,984
Others	74,161	71,321
Total	162,409	177,816

47. Income tax expenses

47-1 The components of income tax expenses for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Current income taxes		
Current income taxes	1,214,080	1,017,075
Prior year's income tax adjustments recognized in the current year	(24,481)	(5,001)
Changes in deferred tax assets (liabilities)	(282,051)	(96,169)
Income taxes directly recognized in equity	224,156	37,317
Tax effect of consolidated tax returns	(71,917)	(50,494)
Income tax expenses	1,059,787	902,728

47-2 Reconciliations of income tax expenses applicable to the net income before income tax expenses at the Korea statutory tax rate and to income tax expenses at the effective income tax rate of the Group for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Net income before tax	4,171,486	3,478,474
Tax at domestic statutory rate (*)	1,168,977	935,405
Non-taxable income	(7,176)	(3,658)
Expenses not deductible for tax purposes	4,184	5,901
Tax credit	(28,674)	(30,120)
Income tax expenses of foreign branches and subsidiaries	60,708	46,874
Tax effect of consolidated tax return	(71,917)	(50,494)
Prior year's income tax adjustments recognized in the current year	(24,481)	(5,001)
Others (Effect of tax rates change, etc.)	(41,834)	3,821
Income tax expenses	1,059,787	902,728

Classification	2022	2021
Effective tax rate (%)	25.41	25.95

(*) 11% is applied to income under ₩200 million, 22% is applied to income exceeding ₩200 million and under ₩20 billion, 24.2% is applied to income exceeding ₩20 billion and under ₩300 billion and 27.5% is applied to income above ₩300 billion.

47-3 Temporary differences and deferred tax assets (liabilities) as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Deductible (taxable) temporary differences	Deferred tax assets (liabilities)
Gain (loss) on valuation of securities	559,829	147,795
Valuation of investment in associates	(589,134)	(155,531)
Gain (loss) on valuation of derivatives	927,438	244,844
Deemed dividends	281,421	74,295
Deferred loan fees, net of expenses	(363,572)	(95,983)
Accrued income	(344,814)	(91,031)
Accrued expenses	94,987	25,077
Provisions for payment guarantees	81,109	21,413
Plan assets	(1,987,305)	(524,648)
Defined benefit obligations	1,987,305	524,648
Other provisions	429,186	113,305
Bad debt expenses	707,373	186,747
Depreciation	(1,724)	(455)
Fair value valuation resulting from merger	6,937	1,831
Dormant deposits	22,133	5,843
Allowance for advanced depreciation	(180,315)	(47,603)
Deemed cost for property and equipment	(607,839)	(160,469)
Gain (loss) on valuation of financial instruments at FVOCI	1,380,998	364,583
Investment in kind	18,479	4,878
Financial guarantee contracts	4,631	1,222
Others	(1,657,614)	(437,611)
Subtotal	769,509	203,150
Domestic deferred tax assets		203,150
Foreign deferred tax assets (*)		112,868
Foreign deferred tax liabilities(*)		(2,259)

Classification	Deductible (taxable) temporary differences	Deferred tax assets (liabilities)
Total		313,759

(*) Deferred tax assets of foreign branches are not offset against the deferred tax liabilities due to the differences in tax jurisdictions.

<December 31, 2021>

Classification	Deductible (taxable) temporary differences	Deferred tax assets (liabilities)
Gain on valuation of securities	358,807	98,672
Valuation of investment in associates	(584,697)	(160,792)
Loss on valuation of derivatives	(255,783)	(70,340)
Deerred dividends	292,686	80,489
Deferred loan fees, net of expenses	(388,842)	(106,932)
Accrued income	(211,289)	(58,104)
Accrued expenses	49,102	13,503
Provisions for payment guarantees	33,345	9,170
Plan assets	(1,849,862)	(508,712)
Defined benefit obligations	2,013,771	553,787
Other provisions	408,579	112,359
Bad debt expenses	722,889	198,794
Depreciation	(1,428)	(393)
Fair value valuation resulting from merger	9,281	2,552
Dormant deposits	25,219	6,935
Allowance for advanced depreciation	(180,315)	(49,587)
Deerred cost for property and equipment	(615,586)	(169,286)
Gain on valuation of financial instruments at FVOCI	544,460	149,727
Investment in kind	18,479	5,082
Financial guarantee contracts	4,127	1,135
Deferred reward points income	7	2
Others	129,511	35,616
Subtotal	522,461	143,677
Domestic deferred tax assets		143,677
Foreign deferred tax assets (*)		39,174
Foreign deferred tax liabilities(*)		(151,143)
Total		31,708

(*) Deferred tax assets of foreign branches are not offset against the deferred tax liabilities due to the differences in tax jurisdictions.

The effective income tax rate of 26.4% as of December 31, 2022, is applied when calculating deferred tax assets or liabilities. Also, deferred tax assets are recognized when it is foreseeable that future taxable income will be incurred and that future tax credits will be realized.

47-4 The unrealized temporary differences on investment assets of associates related companies as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Less: temporary difference	337,867	337,867
Add: temporary difference	(355,579)	(355,579)
Total	(17,712)	(17,712)

47-5 Changes in deferred taxes charged (credited) directly to equity for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

<2022>

Classification	December 31, 2022	December 31, 2021	Changes
Gain on valuation of financial assets at FVOCI	362,656	147,772	214,884
Changes in equity on investments in associates	(27,044)	(27,859)	815
Exchange differences on translation of foreign operations	213	2,610	(2,397)
Gain (loss) on valuation of net investment hedges of foreign operations	18,898	11,112	7,786
Gain (loss) on valuation of fairvalue hedges	9,477	4,978	4,499
Remeasurement of defined benefit plans	161,991	164,438	(2,447)
Subtotal	526,191	303,051	223,140
Reclassification as loss on valuation of equity securities at FVOCI			1,016
Total			224,156

<2021>

Classification	December 31, 2021	December 31, 2020	Changes
Gain on valuation of financial assets at FVOCI	147,772	16,008	131,764
Changes in equity on investments in associates	(27,859)	37,083	(64,942)
Exchange differences on translation of foreign operations	2,610	21,082	(18,472)
Gain (loss) on valuation of net investment hedges of foreign operations	11,112	(4,359)	15,471
Gain (loss) on valuation of fairvalue hedges	4,978	(384)	5,362
Remeasurement of defined benefit plans	164,438	182,221	(17,783)
Subtotal	303,051	251,651	51,400
Reclassification as loss on valuation of equity securities at FVOCI			(14,083)
Total			37,317

48. Earnings per share

48-1 Weighted-average number of common stocks for the years ended December 31, 2022 and 2021, are as follows (shares):

Classification	Periods	Number of shares	Weights	Weighted-average number of ordinary stocks
December 31, 2022	2022.01.01~2022.12.31	1,071,915,717	365/365	1,071,915,717
December 31, 2021	2021.01.01~2021.12.31	1,071,915,717	365/365	1,071,915,717

Since the Group does not have potentially dilutive common stock, the weighted average number of common stock outstanding per basic share is the same as the weighted-average number of shares of common stock outstanding per diluted share.

48-2 The Group's basic EPS for the years ended December 31, 2022 and 2021, are calculated as follows (Korean won in millions except per share amounts):

Classification	2022	2021
Net income attributable to equity holders of the parent for the year	3,095,845	2,570,361
Dividends on hybrid equity securities	(23,770)	(9,814)
Total	3,072,075	2,560,547
Weighted-average number of shares of common stocks outstanding	1,071,915,717	1,071,915,717
Basic EPS (In Korean won) (*)	₩2,866	₩2,389

(*) Basic EPS are the same as diluted EPS for the years ended December 31, 2022 and 2021.

49. Share-based payment

When the stock options are exercised, the Group has the option to settle either through issuance of new shares or treasury stock or through payment of cash equivalents to the difference between the market price and the exercise price. The number of exercisable stock options is determined in accordance with management performance and the calculation criteria for the number of exercisable shares. In addition, the Group operates a Performance Share Plan to provide performance-linked shares to the executives and heads of the Group.

49-1 Details of liabilities related to share-based payment and total intrinsic value of rights accounted for as accounts payable in case that option holders achieve rights to receive cash or other assets as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Book value of liabilities related to share-based payment		
Performance Share (granted by the Group)	36,127	31,949

49-2 The compensation costs for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Costs recognized due to share-based payment		
Equity-linked special incentive (granted by the Group)	10,782	15,197
Stock options(granted by subsidiary)	15	2
Total	10,797	15,199

49-3 Details of performance-linked stocks granted to the executives and department head of the Group as of December 31, 2022 are as follows:

Classification	8th	9th	10th	11th	12th
Granted by	Hana Bank	Hana Bank	Hana Bank	Hana Bank	Hana Bank
Grant date	2018.01.01	2019.01.01	2020.01.01	2021.01.01	2022.01.01
Payment date	2020.12.31	2021.12.31	2022.12.31	2023.12.32	2024.12.31
Grant period	2018.01.01~2020.12.31	2019.01.01~2021.12.31	2020.01.01~2022.12.31	2021.01.01~2023.12.31	2022.01.01~2024.12.31
Grace period	2021.01.01~2021.12.31	2022.01.01~2022.12.31	2023.01.01~2023.12.31	2024.01.01~2024.12.31	2025.01.01~2025.12.31
Payment period	Within 2022.4.30	Within 2023.4.30	Within 2024.4.30	Within 2025.04.30	Within 2026.4.30
Grant method	Payment of cash equivalents to the difference between the market price and the exercise price	Payment of cash equivalents to the difference between the market price and the exercise price	Payment of cash equivalents to the difference between the market price and the exercise price	Payment of cash equivalents to the difference between the market price and the exercise price	Payment of cash equivalents to the difference between the market price and the exercise price
Shares at settlement date (*)	10,438 shares	335,446 shares	275,347 shares	148,721 shares	56,515 shares

(*) The Group provides the executives and department head of the Group with the right to receive stocks. The number of stocks granted is adjusted based on the performance. The number of stocks granted is adjusted based on the assessment indicator that constitutes the Group's performance (relative shareholders' rate of return) of 40% and the Group's performance (ROE, net income, soundness) of 60%.

49-4 Details of the stock option granted by the Group as of December 31, 2022, are as follows:

Classification	Details
Granted by	GLN international Inc.
Stocks subject to exercise	Registered common stock of GLN international Inc.
Grant method	Issuance of new shares
Grant date	2021.11.04
Number of shares	400,000
Exercise period	2024.11.04~2029.11.03
Exercise price	₩500
Evaluation model	LSMC(Least-Squares Monte Carlo) simulation
Risk-free rate	Treasury bond rate

Classification	Details
Stock price volatility	15.48%
Interest rate volatility	Periodic volatility applied to Hull and White model
Fair value per share(*)	₩109.03

(*) The fair value per share is the fair value at the time the stock option is granted.

49-5 There is no stock purchase option that can be exercised as of December 31, 2022

50. Cash flow information

50-1 Details of cash and cash equivalents as of December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	December 31, 2022	December 31, 2021
Cash	1,903,972	2,023,877
Due from banks in Korean won	15,950,890	13,047,514
Due from banks in foreign currencies	23,232,995	12,622,541
Subtotal	41,087,857	27,693,932
Restricted balances (*)	2,010,077	1,624,307
Deposits with a maturity of more than three months at the time of acquisition	577,354	590,990
Net amount	38,500,426	25,478,635

(*) Restricted balances exclude reserve deposits that meet the definition of cash equivalents.

50-2 Significant non-cash transactions for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

Classification	2022	2021
Reduction in capital surplus	3,500,000	–
Change in right-of-use assets during the period	306,049	133,060
Change in lease liabilities during the period	311,888	122,651
Gain on valuation of financial assets at FVOCI	852,663	422,742
Transfer from property, plant and equipment to investment properties	97,994	250,324
Changes in equity on investments in associates	1,132	236,155
Exchange differences on translation of foreign operations	313	300,301
Conversion from debt instruments	40,370	–

50-3 Reconciliation of liabilities arising from financing activities for the years ended December 31, 2022 and 2021, is as follows (Korean won in millions):

<2022>

Classification	Beginning balance	Financing activities	Exchange rate fluctuation	Fair value hedging	Acquisition and termination of lease	Others	Ending balance
Borrowings	17,524,480	3,926,509	805,608	–	–	–	22,256,597
Debentures	27,699,757	(1,465,060)	257,968	(271,934)	–	12,608	26,233,339
Lease liabilities	561,562	(199,280)	–	–	311,888	(6,391)	667,779
Total	45,785,799	2,262,169	1,063,576	(271,934)	311,888	6,217	49,157,715

<2021>

Classification	Beginning balance	Financing activities	Exchange rate fluctuation	Fair value hedging	Acquisition and termination of lease	Others	Ending balance
Borrowings	17,106,246	(510,352)	928,586	–	–	–	17,524,480
Debentures	24,383,015	2,943,323	392,646	(24,207)	–	4,980	27,699,757
Lease liabilities	673,481	(220,521)	–	–	122,651	(14,049)	561,562
Total	42,162,742	2,212,450	1,321,232	(24,207)	122,651	(9,069)	45,785,799

51. Related parties

51-1 Transactions with related parties for the years ended December 31, 2022 and 2021, are summarized as follows (Korean won in millions):

<2022>

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
Ultimate parent company	Hana Financial Group (HFG)	15	4,421	–	–	58	–	–
Associates	Bank of Jilin	100	3	–	–	–	–	5
	CM International financing leases	2,407	–	–	16,015	–	–	–
	Beijing Langzi Asset Management Co., Ltd.	67	1	1	(22)	8	–	–
	Hana Equity Partners I, L.P	–	5	–	–	2	–	–
	Korea Credit Bureau	978	–	–	16	108	–	–
	Templeton Hana Asset Management Co., Ltd.	–	1	2	–	213	–	–
	Hana – KVIC Unicorn Fund of Funds	–	–	–	–	78	–	–
	Bank for Investment and Development of Vietnam (BIDV)	780	–	–	(15)	1,284	1	–
	Hana Micro Finance., Ltd.	–	1,600	–	(343)	–	–	–
	All Together Korea Fund 5	–	–	62	–	–	–	–
	Hana Ventures No. 7 New Technology Business Investment Association	–	3	–	–	3	–	–
	TossBank Corp.	10,541	–	1	–	2	–	–
	SHINJIN INTERNATIONAL COPORATION	4	–	–	–	–	–	–
	Inhee Co., Ltd	–	1	–	–	–	–	–
	Sinsa Station area Complex Development PFV Co., Ltd.	1,606	100	–	9,199	–	–	–
	Hana-Capstone AI Platform Fund	–	–	–	–	54	–	–
	Cheongna Medipolis PFV Co., Ltd.	–	–	–	–	53	–	–
	Hana Beyond Finance Fund	–	8	–	–	229	–	–
Subtotal		16,483	1,722	66	24,850	2,034	1	5
Joint venture	PT. SINARMAS HANA FINANCE	2,398	2	–	76	–	–	–
Entities under common control	Hana Securities Co., Ltd.	76	1,947	469,067	44	3,823	–	552,481
	Hana Card Co., Ltd.	29	36,985	6,813	20	2,574	8,803	562
	Hana Capital Co., Ltd.	17	407	–	4	300	–	398
	Hana Asset Trust Co., Ltd.	–	39	–	–	3,856	3,380	–
	Hana Alternative Asset Management Co., Ltd.	5	53	–	–	823	–	–
	Hana TI Co., Ltd.	–	16	56	–	7,368	7,099	77,039
	Hana Life Insurance Co., Ltd.	8	10,757	7,782	–	31	–	3,066
	Hana Savings Bank	–	19	–	–	–	–	–
	Hana Investors Services Company	7	2	–	–	47	–	–
	Hana Ventures Inc.	–	1	–	–	97	–	–
	Hana Alternative Special Investment Private Trust No. 123-1	2,775	–	1,916	–	–	–	–
	Hana F&I Inc	298	237	1	2	72	–	–
	Hana Ventures No. 4 New Technology Business Investment Association	–	3	–	–	2	–	–
	Hana Insurance Co., Ltd.	–	48	9	–	–	2,141	–
	Hana Alternative Infra Special Investment Private Trust No.3-1	–	–	499	–	–	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-2	–	–	211	–	–	–	–

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
	Hana Ventures No. 6 new technology business investment Association	-	3	-	-	3	-	-
	Hana Alternative Infra Special Investment Private Trust No.3-4	-	-	734	-	-	-	-
	Hana Alternative General Private Real Estate Investment Trust No. 180	-	-	799	-	-	-	-
	Finnq Co., Ltd.	-	405	2	-	486	684	-
	Subtotal	3,215	50,922	487,889	70	19,482	22,107	633,546
Other related parties	Mirae Credit Information Services Corp.	227	10	72	9	42	1,139	-
	UBS Hana Asset Management Co., Ltd.	-	1	9	-	353	-	-
	F&U Credit Information Co., Ltd.	-	17	-	-	11	-	-
	Lotte Ventures Corp.	-	-	1	-	-	-	-
	Hana Power Infrastructure No. 1 Private Investment Co., Ltd.	588	60	-	(69)	20	-	-
	GMHB Co., Ltd.	857	-	-	(266)	1	-	-
	KORAMCO THE ONE REIT	-	-	-	-	-	-	2,069
	Daegu MBC Site Complex Development PFV	5,201	219	-	181	-	-	-
	Lakebridge Growth First Private Investment Co., Ltd	-	-	39	-	1	-	-
	YH Leisure Development Co., Ltd.	3,917	-	-	(160)	29	-	-
	Hana Ventures No. 5 New Technology Business Investment Association	-	-	-	-	6	-	-
	Hana Innovation Venture Scale-up Fund	-	-	-	-	76	-	-
	Hana Must Seven Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Financial Fourteen Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Financial Fifteenth Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Financial Sixteenth Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Financial Seventeen Special Purpose Acquisition Company	-	2	-	-	40	-	-
	Hana Financial Nineteen Special Purpose Acquisition Company	-	-	-	-	29	-	-
	Hana-History No1 Investment Fund	-	-	-	-	3	-	-
	Hana Financial twentieth Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Gyeonggi Hana Turn around Fund No.2	-	-	16	-	94	-	-
	Hana Untact Digital Innovation Fund	-	-	21	-	69	-	-
	Ingok Rental Housing CO., Ltd.	-	-	-	-	1	-	-
	Hana Financial Twenty One Special Purpose Acquisition Company	-	-	-	-	17	-	-
	The Hahm Green Energy Fund	-	-	-	-	25	-	-
	Hana Financial Twenty-second Special Purpose Acquisition Company	-	-	-	-	13	-	-
	Hana Financial Twenty-third Special Purpose Acquisition Company	-	-	-	-	12	-	-
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	-	-	-	-	19	-	-
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	-	-	-	-	44	-	-
	Eugene Asia Food Tech Fund-1	-	-	37	-	-	-	-
	Subtotal	10,790	309	195	(305)	910	1,139	2,069
Key management	Key management	25	-	-	-	89	-	-
	Total	32,926	57,376	488,150	24,691	22,573	23,247	635,620

<2021>

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
Ultimate parent company	Hana Financial Group (HFG)	41	4,885	–	–	19	116	–
Associates	Bank of Jilin	62	3	1	–	–	–	2
	OM International financing leases	2,282	–	–	7,590	–	–	–
	Beijing Langzi Asset Management Co.,Ltd.	629	538	20	(50)	8	–	–
	Hana Equity Partners I, L.P	–	6	–	–	8	–	–
	Korea Credit Bureau	–	–	–	–	13	–	–
	Templeton Hana Asset Management Co., Ltd.	–	1	5	–	127	–	–
	Company K Startup Winwin Fund	–	–	–	–	1	–	–
	Hana – KVIC Unicorn Fund of Funds	–	–	–	–	27	–	–
	Our Crowd International Invest III	–	–	137	–	–	–	27
	Bank for Investment and Development of Vietnam (BIDV)	307	–	–	(105)	500	–	–
	Hana Micro Finance., Ltd.	–	1,520	–	(40)	–	–	–
	Hana Ventures No. 7 New Technology Business Investment Association	–	3	–	–	1	–	–
	TossBank Corp.	12	–	–	–	330	–	–
	SHINJIN INTERNATIONAL COPORATION	–	–	–	92	–	–	–
	Inhee Co.,Ltd	–	2	–	–	–	–	–
	Sinsa Station area Complex Development PFV Co., Ltd.	185	900	–	646	–	–	–
	Hana-Capstone AI Platform Fund	–	–	–	–	8	–	–
Subtotal		3,477	2,973	163	8,133	1,023	–	29
Joint venture	PT. SINARMAS HANA FINANCE	1,427	1	–	89	–	–	–
Entities under common control	Hana Securities Co., Ltd.	127	3,653	361,563	(19)	881	–	307,850
	Hana Card Co., Ltd.	82	33,094	3,880	(13)	651	6,603	15
	Hana Capital Co., Ltd.	10	735	–	(8)	165	–	580
	Hana Asset Trust Co., Ltd.	–	57	–	–	1,247	2,268	–
	Hana Alternative Asset Management Co., Ltd.	14	51	–	–	353	–	–
	Hana TI Co., Ltd.	–	10	26	–	3,466	6,598	73,988
	Hana Life Insurance Co., Ltd.	23	14,110	4,318	–	31	–	1,067
	Hana Savings Bank	–	10	–	–	–	–	–
	Hana Investors Services Company	20	1	–	–	15	–	–
	Hana Ventures Inc.	–	–	–	–	128	501	–
	Hana F&I Inc	61	139	–	(4)	31	–	–
	Hana Insurance Co., Ltd.	–	103	–	–	–	481	536
	Hana Alternative Investment Land Chip Real Estate Private Trust 68	–	–	–	–	–	–	43
	Hana Alternative Special Investment Private Trust No.123-1	–	–	3,811	–	–	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-1	–	–	234	–	–	–	–
	Hana Alternative Infra Special Investment Private Trust No.3-2	–	–	611	–	–	–	–
	Hana Ventures No. 4 new technology business investment association	–	3	–	–	–	–	–
	Hana Ventures No. 6 new technology business investment association	–	3	–	–	–	–	–
Subtotal		337	51,969	374,443	(44)	6,968	16,451	384,079
	Gunsan bio-energy Corp.	–	–	–	–	1	–	–
	Finnq Co., Ltd.	–	674	3	–	19	1,062	–
	Mirae Credit Information Services Corp.	–	10	72	–	18	1,144	–
	UBS Hana Asset Management Co., Ltd.	–	1	15	–	148	–	–
	F&U Credit Information Co., Ltd.	–	10	–	–	4	–	–
	Lotte Ventures Corp.	–	–	1	–	6	–	–
	Hana Power Infrastructure No. 1 Private Investment Co., Ltd.	528	60	–	(104)	17	–	–

Classification	Entity	Income			Expenses			
		Interest income	Fees and commission income	Other income	Bad debt expenses	Interest expenses	Fees and commission expenses	Other expenses
Other related parties	GMHB Co., Ltd.	1,511	-	-	(142)	1	-	-
	KOCREF REIT 30	-	-	-	-	-	-	1,779
	Myoung Shin Industrial Co., Ltd.	8	-	-	(9)	-	-	-
	Fresheasy Co., Ltd.	222	1	-	(3)	41	-	-
	Dowon asset development Co., Ltd.	-	-	-	-	1	-	-
	YH Leisure Development Co., Ltd.	3,994	-	-	(31)	3	-	-
	Hana Ventures No. 5 New Technology Business Investment Association	-	-	-	-	1	-	-
	Hana Innovation Venture Scale-up Fund	-	-	-	-	12	-	-
	Daegu MBC Site Complex Development PFV	805	3,000	-	946	-	-	-
	Lakebridge Growth First Private Investment Co., Ltd	-	-	28	-	-	-	-
	Apollon Private equity fund	-	-	1,863	-	-	-	-
	Hana Must Seven Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Must Sixth Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Financial Fourteen Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Financial Fifteenth Special Purpose Acquisition Company	-	-	-	-	2	-	-
	Hana Financial Sixteenth Special Purpose Acquisition Company	-	-	-	-	1	-	-
	Hana Financial Seventeen Special Purpose Acquisition Company	-	-	-	-	3	-	-
	Hana Financial Nineteen Special Purpose Acquisition Company	-	-	-	-	9	-	-
	Odin2.LLC	14,648	-	-	-	-	-	-
	People Korea Two Co., Ltd.	-	-	-	-	1	-	-
Subtotal		21,716	3,756	1,982	657	291	2,206	1,779
Key management	Key management	18	-	-	-	44	-	-
Total		27,016	63,584	376,588	8,835	8,345	18,773	385,887

51-2 Significant financial transactions with related parties for the years ended December 31, 2022 and 2021, are as follows:

51-2-1 Details of significant loans to related parties for the years ended December 31, 2022 and 2021, are as follows (Korean won in millions):

<2022>

Classification	Entity	Loans (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
Associates	Bank of Jilin	6,300	108,600	(111,700)	–	3,200
	CM International financing leases	63,341	–	–	(1,372)	61,969
	Beijing Langzi Asset Management Co., Ltd.	11,161	–	(12,083)	922	–
	Korea Credit Bureau	–	40,000	–	–	40,000
	Bank for Investment and Development of Vietnam (BIDV)	11,855	419,413	(425,749)	818	6,337
	TossBank Corp.	–	1,060,000	(1,060,000)	–	–
	SHINJIN INTERNATIONAL COPORATION	1,444	–	–	–	1,444
	Sinsa Station area Complex Development PFV Co., Ltd.	75,500	9,800	(75,500)	–	9,800
Subtotal		169,601	1,637,813	(1,685,032)	368	122,750
Joint venture	PT. SINARMAS HANA FINANCE	32,491	7,086	(1,572)	(861)	37,144
Entities under common control	Hana Securities Co., Ltd.	924	4,061	(1,746)	–	3,239
	Hana Capital Co., Ltd.	–	100,000	(100,000)	–	–
	Hana Alternative Special Investment Private Trust No. 123-1	–	45,537	(45,537)	–	–
	Hana F&I Inc	–	265,400	(265,400)	–	–
Subtotal		924	414,998	(412,683)	–	3,239
Other related parties	Mirae Credit Information Services Corp.	–	7,000	–	–	7,000
	Smartscore Co., Ltd.	–	38	(38)	–	–
	Hana Power Infrastructure No. 1 Private Investment Co., Ltd.	13,023	–	(1,907)	–	11,116
	GMIHB Co., Ltd.	32,500	–	(32,500)	–	–
	Daegu MBC Site Complex Development PFV	85,120	9,588	–	–	94,708
	YH Leisure Development Co., Ltd.	115,463	–	(3,140)	–	112,323
Subtotal		246,106	16,626	(37,585)	–	225,147
Key management	Key management	749	25	–	–	774
Total		449,871	2,076,548	(2,136,872)	(493)	389,054

(*1) Intraday overdrafts between related parties are excluded.

(*2) Others include the effect of changes in exchange rate.

<2021>

Classification	Entity	Loans (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
Associates	Bank of Jilin	10,600	216,800	(221,100)	–	6,300
	CM International financing leases	56,793	–	–	6,548	63,341
	Beijing Langzi Asset Management Co., Ltd.	11,675	–	(1,860)	1,346	11,161
	Bank for Investment and Development of Vietnam (BIDV)	16,320	898,147	(904,075)	1,463	11,855
	SHINJIN INTERNATIONAL COPORATION	–	–	–	1,444	1,444
	Sinsa Station area Complex Development PFV Co., Ltd.	–	75,500	–	–	75,500
Subtotal		95,388	1,190,447	(1,127,035)	10,801	169,601
Joint venture	PT. SINARMAS HANA FINANCE	18,578	15,062	(2,517)	1,368	32,491
Entities under common control	Hana Securities Co., Ltd.	580	10,850	(6,676)	(3,830)	924
	Hana Capital Co., Ltd.	–	130,000	(130,000)	–	–
	Hana F&I Inc	–	126,200	(126,200)	–	–
Subtotal		580	267,050	(262,876)	(3,830)	924
Other related parties	Smartscore Co., Ltd.	–	70	(70)	–	–
	Hana Power Infrastructure No. 1 Private Investment Co., Ltd.	14,186	–	(1,163)	–	13,023
	GMIHB Co., Ltd.	32,500	–	–	–	32,500
	Myoung Shin Industrial Co., Ltd.	1,000	–	–	(1,000)	–
	Fresheasy Co., Ltd.	9,100	1,600	–	(10,700)	–
	Daegu MBC Site Complex Development PFV	–	85,120	–	–	85,120
	YH Leisure Development Co., Ltd.	116,944	–	(1,481)	–	115,463
Subtotal		173,730	86,790	(2,714)	(11,700)	246,106
Key management	Key management	690	59	–	–	749
Total		288,966	1,559,408	(1,395,142)	(3,361)	449,871

(*1) Intraday overdrafts between related parties are excluded.

(*2) Others include the effect of changes in exchange rate.

51-2-2 Details of significant cash investments with related parties for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Entity	Investment in cash	
		Investment	Collection and others
Associates	Beijing Langzi Asset Management Co., Ltd.	–	(1,708)
	Hana Equity Partners I, L.P	–	(120)
	Templeton Hana Asset Management Co., Ltd.	–	(198)
	Company K Startup Winwin Fund	–	(7,090)
	BSK-6 Patent Technology Investment Association	–	(327)
	Hana – KMC Unicorn Fund of Funds	25,130	–
	Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	–	(27)
	All Together Korea Fund 5	62	(62)
	HORIZON PRIVATE EQUITY FUND	–	(15,436)
	TossBank Corp.	70,000	–
	Hana-New Deal K-Growth fund	22,500	–
	Hana-Capstone AI Platform Fund	15,000	–
	Taurus Cloud Fund	77	–
	Hana Beyond Finance Fund	24,000	–
	Defense Technology Innovation Private Investment Trust	2,950	–
	Subtotal	159,719	(24,968)
Entities under common control	Hana Securities Co., Ltd.	–	(563)
	Hana Alternative Investment Infrastructure Private Equity Real Estate Investment Trust No. 3-1	14,454	–
	Hana Alternative Infra Special Investment Private Trust No.3-4	356	–
	Hana Alternative Investment General Private Equity Real Estate Investment Trust No.180	37,233	–
	Subtotal	52,043	(563)
Other related parties	Hana Digital Transformation Fund	–	(1,596)
	Lakebridge Growth First Private Investment Co., Ltd	–	(175)
	Hana Innovation Venture Scale-up Fund	1,040	–
	Gyeonggi Hana Support Timber Equipment Support Fund No.2	1,350	–
	Hana Untact Digital Innovation Fund	2,700	–
	Hana K-NewDeal Unicorn Fund	7,200	–
	The Hahm Green Energy Fund	6,000	–
	Subtotal	18,290	(1,771)
Total		230,052	(27,302)

<2021>

Classification	Entity	Investment in cash	
		Investment	Collection and others
Associates	Beijing Langzi Asset Management Co., Ltd.	–	(1,344)
	Hana First Private Equity Fund	–	(4,689)
	Korea Credit Bureau	–	(90)
	Templeton Hana Asset Management Co., Ltd.	–	(990)
	Company K Startup Winwin Fund	–	(300)
	Hana – KMC Unicom Fund of Funds	18,000	–
	Our Crowd International Invest III	–	(497)
	Bank for Investment and Development of Vietnam (BIDV)	–	(6,262)
	Harvest Private Equity Fund Specializing in Start-Up and Venture Business I	–	(27)
	TossBank Corp.	47,500	–
	Sinsa Station area Complex Development PFV Co., Ltd.	450	–
	Hana-New Deal K-Growth fund	1,800	–
	Hana-Capstone AI Platform Fund	15,000	–
	Taurus Cloud Fund	9,401	–
	Cheongna Medipolis PFV Co., Ltd	3,372	–
	NPX-Welcome Metaverse Contents fund	1,000	–
Subtotal		96,523	(14,199)
Entities under common control	Hana Securities Co., Ltd.	–	(10,877)
	Hana Alternative Infra Special Investment Private Trust No.3-2	950	(9,035)
	Hana Alternative Infra Special Investment Private Trust No.3-4	17,912	–
Subtotal		18,862	(19,912)
Other related parties	Hana Digital Transformation Fund	–	(3,098)
	Apollon Private equity fund	–	(681)
	Lakebridge Growth First Private Investment Co., Ltd	–	(175)
	Hana Innovation Venture Scale-Up Fund	2,080	–
	Gyeonggi Hana Turn around Fund No.2	2,700	–
	Hana Untact Digital Innovation Fund	1,350	–
Subtotal		6,130	(3,954)
Total		121,515	(38,065)

51-2-3 Details of significant deposits with related parties for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Entity	Deposits (*1)			
		Beginning balance	Increase	Decrease	Ending balance
Associates	Korea Credit Bureau	–	8,000	–	8,000
	Templeton Hana Asset Management Co., Ltd.	11,000	10,500	(11,000)	10,500
	Company K Startup Winwin Fund	300	–	(300)	–
	Hana Ventures No. 7 New Technology Business Investment Association	–	400	(200)	200
	Hana-Capstone AI Platform Fund	42	42	(42)	42
	Cheongna Medipolis PFV Co., Ltd	–	2,500	–	2,500
	Hana Beyond Finance Fund	–	35,000	–	35,000
Subtotal		11,342	56,442	(11,542)	56,242
Joint venture	PT. SINARMAS HANA FINANCE	12	5	(12)	5
Entities under common control	Hana Securities Co., Ltd.	5,100	7,560	(1,615)	11,045
	Hana Card Co., Ltd.	1,005	10	(1,005)	10
	Hana Capital Co., Ltd.	–	5,800	(3,900)	1,900
	Hana Asset Trust	165,000	175,000	(165,000)	175,000
	Hana Alternative Asset Management Co., Ltd.	49,000	98,000	(134,000)	13,000
	Hana TI Co., Ltd.	–	100,000	(100,000)	–
	Hana Fund Service Co., Ltd.	–	3,000	–	3,000
	Hana Ventures Inc.	3,000	16,500	(8,500)	11,000
	Hana F&I Inc	–	1,500	(1,500)	–
	Hana Ventures No. 4 New Technology Business Investment Association	–	400	(200)	200
	Hana Ventures No. 6 New Technology Business Investment Association	–	400	(200)	200
	Finnq Co., Ltd.	–	89,000	(41,500)	47,500
Subtotal		223,105	497,170	(457,420)	262,855
	Mirae Credit Information Services Corp.	300	–	(300)	–
	UBS Hana Asset Management Co., Ltd.	16,000	18,000	(16,000)	18,000
	F&U Credit information Co., Ltd.	509	502	(1,011)	–
	GMHB Co., Ltd.	100	–	–	100
	YH Leisure Development Co., Ltd.	–	5,000	–	5,000
	Creation Innovation Co., Ltd	10	–	(10)	–
	Hana Ventures No. 5 New Technology Business Investment Association	–	1,000	(500)	500
	Hana Innovation Venture Scale-up Fund	–	13,000	(8,000)	5,000
	Hana Financial Nineteenth Special Purpose Acquisition	1,800	13	–	1,813

Classification	Entity	Deposits (*1)			
		Beginning balance	Increase	Decrease	Ending balance
Other related parties	Company				
	Gyeonggi Hana Turn around Fund No.2	–	17,000	(10,000)	7,000
	Hana Untact Digital Innovation Fund	–	13,000	(10,000)	3,000
	Hana Financial Twenty One Special Purpose Acquisition Company	–	2,100	–	2,100
	The Hahm Green Energy Fund	–	5,600	(5,600)	–
	Hana Financial Twenty-second Special Purpose Acquisition Company	–	1,600	–	1,600
	Hana Financial Twenty-third Special Purpose Acquisition Company	–	1,500	–	1,500
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	–	2,450	–	2,450
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	–	5,800	–	5,800
Subtotal		18,719	86,565	(51,421)	53,863
Key management	Key management	3,596	1,906	–	5,502
Total		256,774	642,088	(520,395)	378,467

(*1) Deposits/withdrawals arising from operations between related parties are excluded.

<2021>

Classification	Entity	Deposits (*1)				
		Beginning balance	Increase	Decrease	Others (*2)	Ending balance
Associates	Korea Credit Bureau	3,000	–	(3,000)	–	–
	Templeton Hana Asset Management Co., Ltd.	18,000	11,000	(18,000)	–	11,000
	Company K Startup Winwin Fund	–	300	–	–	300
	Hana – KMC Unicorn Fund of Funds	–	15,000	(15,000)	–	–
	TossBank Corp.	20,000	180,000	(200,000)	–	–
	Hana-Capstone AI Platform Fund	–	42	–	–	42
Subtotal		41,000	206,342	(236,000)	–	11,342
Joint venture	PT. SINARIMAS HANA FINANCE	12	23	(24)	1	12
Entities under common control	Hana Securities Co., Ltd.	5,000	2,250	(2,150)	–	5,100
	Hana Card Co., Ltd.	1,005	1,005	(1,005)	–	1,005
	Hana Asset Trust	115,708	560,000	(510,708)	–	165,000
	Hana Alternative Asset Management Co., Ltd.	30,000	135,000	(116,000)	–	49,000
	Hana Investors Services Company	–	100	(100)	–	–
	Hana Ventures Inc.	15,000	3,000	(15,000)	–	3,000
	Hana F&I Inc	1,930	2,190	(4,120)	–	–
Subtotal		168,643	703,545	(649,083)	–	223,105
Other related parties	Mirae Credit Information Services Corp.	–	310	(10)	–	300
	UBS Hana Asset Management Co., Ltd.	18,000	26,000	(28,000)	–	16,000
	F&U Credit Information Co., Ltd.	506	3	–	–	509
	Lotte Ventures Corp.	1,000	1,500	(2,500)	–	–
	GMIHB Co., Ltd.	100	–	–	–	100
	Myoung Shin Industrial Co., Ltd.	40	30	–	(70)	–
	Fresheasy Co., Ltd.	90	450	–	(540)	–
	Creation Innovation Co., Ltd	–	110	(100)	–	10
	Hana Financial Nineteenth Special Purpose Acquisition Company	–	1,800	–	–	1,800
Subtotal		19,736	30,203	(30,610)	(610)	18,719
Key management	Key management	1,565	2,031	–	–	3,596
Total		230,956	942,144	(915,717)	(609)	256,774

(*1) Deposits/withdrawals arising from operations between related parties are excluded.

(*2) Others include the effect of changes in exchange rate.

51-2-4 Details of significant borrowings from related parties for the years ended December 31, 2022 and 2021 are as follows (Korean won in millions):

<2022>

Classification	Entity	Beginning balance	Increase	Decrease	Others (*)	Ending balance
Associates	Bank for Investment and Development of Vietnam (BIDV)	80,755	1,349,738	(1,422,233)	2,480	10,740

(*) Others include the effect of changes in exchange rate

<2021>

Classification	Entity	Beginning balance	Increase	Decrease	Others (*)	Ending balance
Associates	Bank for Investment and Development of Vietnam (BIDV)	48,513	647,603	(620,511)	5,150	80,755

(*) Others include the effect of changes in exchange rate

51-3 Outstanding receivables and payables with related parties arising from the above transactions as of December 31, 2022 and 2021 are summarized as follows (Korean won in millions):

<December 31, 2022>

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Ultimate parent company	Hana Financial Group (HFG)	–	8,715	–	28,718	672,478
Associates	Bank of Jilin	3,200	2,409	–	1,611	–
	CMI International financing leases	61,969	–	49,620	18	–
	Beijing Langzi Asset Management Co., Ltd.	–	–	–	3,601	–
	Hana Equity Partners I, L.P.	–	–	–	115	–
	Korea Credit Bureau	40,000	–	16	8,169	–
	Templeton Hana Asset Management Co., Ltd.	–	–	–	10,672	–
	Midan City Development Co., Ltd.	–	–	–	2	–
	Hana – KVC Unicorn Fund of Funds	–	–	–	3,993	–
	Bank for Investment and Development of Vietnam (BIDV)	6,337	5,394	24	2,045	10,740
	Hana Ventures No. 7 New Technology Business Investment Association	–	–	–	495	–
	SHINJIN INTERNATIONAL CORPORATION	1,444	1	107	–	–
	Sinsa Station area Complex Development PFV Co., Ltd.	9,800	–	9,845	45	–
	Hana-Capstone AI Platform Fund	–	–	–	16,841	–
	Cheongna Medipolis PFV Co., Ltd.	–	–	–	2,500	–
	Hana Beyond Finance Fund	–	–	–	42,439	–
Subtotal		122,750	7,804	59,612	92,546	10,740
Joint venture	PT. SINARMAS HANA FINANCE	37,144	47	229	5	–

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Entities under common control	Hana Securities Co., Ltd.	3,239	69,942	100	925,719	151,692
	Hana Card Co., Ltd.	–	15,344	150	309,912	44,938
	Hana Capital Co., Ltd.	–	146	54	506,174	4,701
	Hana Asset Trust Co., Ltd.	–	–	–	179,749	1,968
	Hana Alternative Asset Management Co., Ltd.	–	4,229	–	36,762	1,114
	Hana TI Co., Ltd.	–	211,454	–	5,425	217,978
	Hana Life Insurance Co., Ltd.	–	8,691	–	–	4,671
	Hana Investors Services Company	–	4,090	–	4,190	841
	Hana Ventures Inc.	–	–	–	12,876	35
	Hana F&I Inc	–	1,430	27	40,340	284
	Hana Ventures No. 4 New Technology Business Investment Association	–	–	–	245	–
	Hana Insurance Co., Ltd.	–	–	–	35	–
	HANA ASSET MANAGEMENT ASIA PTE. LTD.	–	–	–	5,117	–
	Hana Ventures No. 6 New Technology Business Investment Association	–	–	–	249	–
	Finnq Co., Ltd.	–	–	–	53,949	–
	Subtotal	3,239	315,326	331	2,080,742	428,222
Other related parties	Gunsan bio-energy Corp	–	–	–	549	–
	Mirae Credit Information Services Corp.	7,000	–	9	2,267	–
	UBS Hana Asset Management Co., Ltd.	–	–	–	18,287	–
	F&U Credit Information Co., Ltd.	–	–	–	1,149	–
	Lotte Ventures Corp.	–	–	–	96	–
	Hana Power Infrastructure No. 1 Private Investment Co., Ltd.	11,116	–	170	4,264	–
	GMHB Co., Ltd.	–	–	–	100	–
	KORAMCO THE ONE REIT	–	1,354	–	–	–
	DangсандongPFV Co., Ltd.	–	–	–	675	–
	Daegu MBC Site Complex Development PFV	94,708	–	1,127	2	–
	Lakebridge Growth First Private Investment Co., Ltd	–	–	–	330	–
	YH Leisure Development Co., Ltd.	112,323	–	172	5,045	–
	Creation Innovation Co., Ltd	–	–	–	70	–
	Hana Ventures No. 5 New Technology Business Investment Association	–	–	–	592	–
	Hana Innovation Venture Scale-Up Fund	–	–	–	10,943	–
	Hana Must Seven Special Purpose Acquisition Company	–	–	–	1,389	–
	Hana Financial Sixteenth Special Purpose Acquisition Company	–	–	–	1,275	–
	Hana Financial Nineteenth Special Purpose Acquisition Company	–	–	–	2,423	–
	People Korea Two Co., Ltd.	–	–	–	47	–
	Hana Financial Twentieth Special Purpose Acquisition Company	–	–	–	778	–
	Gyeonggi Hana Turn around Fund No.2	–	–	–	11,370	–
	Hana Untact Digital Innovation Fund	–	–	–	8,252	–
	Imgok Rental Housing CO., Ltd.	–	–	–	38	–
	Hana Financial Twenty One Special Purpose Acquisition Company	–	–	–	2,572	–
	Choice & Sojern Construction Co., Ltd.	–	–	–	104	–
	Hana Financial Twenty-second Special Purpose	–	–	–	2,007	–

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
	Acquisition Company					
	Hana Financial Twenty-third Special Purpose Acquisition Company	—	—	—	1,911	—
	Hana Financial Twenty-fourth Special Purpose Acquisition Company	—	—	—	2,954	—
	Hana Financial Twenty-fifth Special Purpose Acquisition Company	—	—	—	6,536	—
	Eugene Asia Food Tech Fund-1	—	—	—	247	—
	Subtotal	225,147	1,354	1,478	86,272	—
Key management	Key management	774	—	—	8,007	—
	Total	389,054	333,246	61,650	2,296,290	1,111,440

<December 31, 2021>

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
Ultimate parent company	Hana Financial Group (HFG)	—	1,981	—	7,632	526,427
Associates	Bank of Jilin	6,300	11,573	—	3,492	—
	CM International financing leases	63,341	—	35,184	18	—
	Beijing Langzi Asset Management Co., Ltd.	11,161	—	21	13	—
	Hana Equity Partners I, L.P	—	—	—	536	—
	Korea Credit Bureau	—	—	—	109	—
	Templeton Hana Asset Management Co., Ltd.	—	—	—	11,694	—
	Midan City Development Co., Ltd.	—	—	—	2	—
	Company K Startup Winwin Fund	—	—	—	300	—
	Hana – KVIC Unicom Fund of Funds	—	—	—	3,779	—
	Bank for Investment and Development of Vietnam(BIDV)	11,855	3,851	39	1,653	80,755
	Hana Micro Finance., Ltd.	—	—	343	—	—
	Hana Ventures No. 7 New Technology Business Investment Association	—	—	—	581	—
	SHINJIN INTERNATIONAL CORPORATION	1,444	1	107	—	—
	Inhee.Co.,Ltd	—	—	—	2	—
	Sinsa Station area Complex Development PFV Co., Ltd.	75,500	—	646	92	—
	Hana-Capstone AI Platform Fund	—	—	—	2,129	—
	Subtotal	169,601	15,425	36,340	24,400	80,755
Joint venture	PT. SINARIMAS HANA FINANCE	32,491	33	163	12	—
Entities under common control	Hana Securities Co., Ltd.	924	177,884	56	707,056	185,734
	Hana Card Co., Ltd.	—	4,465	130	117,056	41,794
	Hana Capital Co., Ltd.	—	446	49	246,566	5,006
	Hana Asset Trust Co., Ltd.	—	—	—	233,773	241
	Hana Alternative Asset Management Co., Ltd.	—	675	—	62,538	1,043
	Hana TI Co., Ltd.	—	238,607	—	5,419	240,058
	Hana Life Insurance Co., Ltd.	—	4,291	—	—	2,664
	Hana Investors Services Company	—	967	—	1,114	810
	Hana Ventures Inc	—	—	—	9,545	3
	Hana Ventures No. 6 new technology business investment association	—	—	—	3,149	—
	Hana F&I Inc	—	338	25	44,961	284

Classification	Entity	Loans	Other receivables	Allowance for loan losses	Deposits	Other liabilities
	Hana Ventures No. 4 new technology business investment association	-	-	-	316	-
	Hana Insurance, Co., Ltd.	-	-	-	44	-
	HANA ASSET MANAGEMENT ASIA PTE. LTD.	-	-	-	8,010	-
	Subtotal	924	427,673	260	1,439,547	477,637
Other related parties	Gunsan bio-energy Corp	-	-	-	555	-
	Finnq Co., Ltd.	-	-	-	15,289	-
	Mirae Credit Information Services Corp.	-	-	-	4,631	-
	UBS Hana Asset Management Co., Ltd.	-	-	-	16,328	-
	F&U Credit Information Co., Ltd.	-	-	-	1,266	-
	Smartscore Co., Ltd.	-	-	-	188	-
	Lotte Ventures Corp.	-	-	-	777	-
	Hana Power Infrastructure No. 1 Private Investment Co., Ltd.	13,023	-	239	12,428	-
	GMHB Co., Ltd.	32,500	-	266	100	-
	KOCREF REIT 30	-	1,354	-	-	-
	DangсандongPFV Co., Ltd.	-	-	-	183	-
	Daegu MBC Site Complex Development PFV	85,120	-	946	2,402	-
	Heat Private Equity Fund	-	-	-	1	-
	Lakebridge Growth First Private Investment Co., Ltd	-	-	-	277	-
	YH Leisure Development Co., Ltd.	115,463	-	332	1,788	-
	Creation Innovation Co., Ltd	-	-	-	45	-
	Hana Ventures No. 5 new technology business investment association	-	-	-	661	-
	Hana Innovation Venture Scale-Up Fund	-	-	-	7,786	-
	Hana Must Seven Special Purpose Acquisition Company	-	-	-	1,405	-
	Dowon asset development Co., Ltd.	-	-	-	83	-
	Hana Financial Fourteen Special Purpose Acquisition Company	-	-	-	1,285	-
	Hana Financial Fifteenth Special Purpose Acquisition Company	-	-	-	1,588	-
	Hana Financial Sixteenth Special Purpose Acquisition Company	-	-	-	1,286	-
	Hana Financial Seventeen Special Purpose Acquisition Company	-	-	-	2,535	-
	Hana Financial Nineteenth Special Purpose Acquisition Company	-	-	-	2,496	-
	People Korea Two Co., Ltd.	-	-	-	57	-
	Hana Financial Twenty Special Purpose Acquisition Company	-	-	-	817	-
	Imgok Rental Housing CO., Ltd.	-	-	-	308	-
	HANA FINANCIAL TWENTY-ONE SPECIAL PURPOSE ACQUISITION COMPANY	-	-	-	2,786	-
	Subtotal	246,106	1,354	1,783	79,351	-
Key management	Key management	749	-	-	6,766	-
	Total	449,871	446,466	38,546	1,557,708	1,084,819

51-4 Significant payment guarantees and collaterals provided to related parties as of December 31, 2022 and 2021 are as follows (Korean won in millions):

<December 31, 2022>

Classification	Entity	Payment guarantees or Collaterals provided	Limit
Associates	Hana Micro Finance., Ltd.	Acceptance and guarantees in foreign currencies	98,849
	Hana-New Deal K-Growth fund	Purchase of securities	65,700
	Taurus Cloud Fund	Purchase of securities	522
	Hana Beyond Finance Fund	Purchase of securities	56,000
	Cheongna Medipolis PFV Co., Ltd.	Purchase of securities	16,628
	Templeton Hana Asset Management Co., Ltd.	Purchase of securities	4,619
	All Together Korea Fund 5	Purchase of securities	990,000
	Defense Technology Innovation Private Investment Trust	Purchase of securities	56,050
Joint venture	PT. SINARMAS HANA FINANCE	Unused loan commitments in foreign currencies	1,688
Entities under common control	Hana Alternative Infra Special Investment Private Trust No.3-1	Purchase of securities	5,761
	Hana F&I Inc	Unused loan commitments in Korean won	140,000
	Hana Card Co., Ltd.	Unused loan commitments in Korean won	500,000
		Credit contribution limit related to payment	40,000
	Hana Capital Co., Ltd.	Unused loan commitments in Korean won	260,000
	Hana Alternative Infra Special Investment Private Trust No.3-4	Purchase of securities	2,632
	Hana Securities Co., Ltd.	Import L/C opened	37
		Unused loan commitments in Korean won	130,000
	Hana Alternative General Private Real Estate Investment Trust No.180	Purchase of securities	114,359
Other related parties	Hana Digital Transformation Fund	Purchase of securities	1,000
	Hana Innovation Venture Scale-Up Fund	Purchase of securities	520
	Daegu MBC Site Complex Development PFV	Unused loan commitments in Korean won	65,292
	Gyeonggi Hana Turn around Fund No.2	Purchase of securities	450
	Hana Untact Digital Innovation Fund	Purchase of securities	450
	Hana K-NewDeal Unicorn Fund	Purchase of securities	10,800

<December 31, 2021>

Classification	Entity	Payment guarantees or Collaterals provided	Limit
Associates	Hana-KMC Unicorn Fund of Funds	Purchase of securities	25,130
	Hana Micro Finance., Ltd.	Acceptance and guarantees in foreign currencies	104,324
	TossBank Corp.	Purchase of securities	227,273
	All Together Korea Fund 5	Purchase of securities	990,000
	Hana-New Deal K-Growth fund	Purchase of securities	88,200
	Hana-Capstone AI Platform Fund	Purchase of securities	15,000
	Taurus Cloud Fund	Purchase of securities	599
Joint venture	PT. SINARMAS HANA FINANCE	Unused loan commitments in foreign currencies	7,397
Entities under common control	Hana Securities Co., Ltd.	Unused loan commitments in Korean won	130,000
		Import L/C opened	588
		Acceptance and guarantees in foreign currencies	1,488
	Hana Card Co., Ltd.	Unused loan commitments in Korean won	500,000
		Credit contribution limit related to payment	40,000
	Hana Capital Co., Ltd.	Unused loan commitments in Korean won	260,000
	Hana F&I Inc	Unused loan commitments in Korean won	140,000
	Hana Alternative Infra Special Investment Private Trust No.3-1	Purchase of securities	21,465
	Hana Alternative Infra Special Investment Private Trust No.3-2	Purchase of securities	952
	Hana Alternative Infra Special Investment Private Trust No.3-4	Purchase of securities	2,988
Other related parties	GMHB Co., Ltd.	Unused loan commitments in Korean won	6,000
	Hana Digital Transformation Fund	Purchase of securities	1,000
	Hana Innovation Venture Scale-Up Fund	Purchase of securities	1,560
	Smartscore Co., Ltd.	Unused loan commitments in Korean won	7
	Daegu MBC Site Complex Development PFV	Unused loan commitments in Korean won	74,880

51-5 Significant payment guarantees and collaterals provided from related parties as of December 31, 2022 and 2021, are as follows
(Korean won in millions):

<December 31, 2022>

Classification	Entity	Payment guarantees or Collaterals provided	Limit
Associates	Bank for Investment and Development of Vietnam (BIDV)	Acceptance and guarantees in foreign currencies	59,306
Entities under common control	Hana Life Insurance Co., Ltd.	Collateral provided	13,525
		Unsettled arrangements (Currency forward)	94,633
	Hana F&I Inc	Collateral provided	271,875
	Hana Card Co., Ltd.	Unsettled arrangements (Interest swap)	300,000
		Unsettled arrangements (Currency forward)	7,812
		Unused loan commitments in Korean won	139,110
	Hana Capital Co., Ltd.	Collateral provided	475,051
	Finnq Co., Ltd.	Collateral provided	50
	Hana Securities Co., Ltd.(*)	Collateral provided	70,000
		Unsettled arrangements (Currency forward)	3,519,325
		Unsettled arrangements (Currency swap)	63,365
		Unsettled arrangements (Stock swap)	72,235

(*) As a swap bank of investment trust to which Hana securities Co., Ltd. is committed to purchase private bonds, the Group is provided with an obligation for additional investment or supplementation of forward exchange or currency swap of investment trust.

<December 31, 2021>

Classification	Entity	Payment guarantees or Collaterals provided	Limit
Associates	Bank for Investment and Development of Vietnam (BIDV)	Acceptance and guarantees in foreign currencies	26,782

Classification	Entity	Payment guarantees or Collaterals provided	Limit
Entities under common control	Hana Securities Co., Ltd.(*)	Collateral provided	70,000
		Unsettled arrangements (Currency forward)	1,471,839
		Unsettled arrangements (Currency swap)	13,084
	Hana Card Co., Ltd.	Collateral provided	1,000
		Unused loan commitments in Korean won	139,728
		Unsettled arrangements (Currency forward)	8,299
	Hana Capital Co., Ltd.	Collateral provided	474,805
	Hana Life Insurance Co., Ltd.	Collateral provided	5,098
		Unsettled arrangements (Currency forward)	87,852
	Hana F&I Inc	Collateral provided	294,424
Other related parties	Finnq Co., Ltd.	Collateral provided	50

(*) As a swap bank of investment trust to which Hana Securities Co., Ltd. is committed to purchase private bonds, the Group is provided with an obligation for additional investment or supplementation of forward exchange or currency swap of investment trust.

51-6 The amount of intangible assets and others acquired by Hana TI Co., Ltd. for the years ended December 31, 2022 and 2021 are ₩10,867 million and ₩8,712 million, respectively.

51-7 The defined benefit plans deposited to the Hana Securities as of December 31, 2022 and 2021 are ₩111,311 million and ₩90,121 million, respectively.

51-8 For the year ended December 31, 2022, the Group purchased land from Hana TI Company Ltd., and the carrying amount of the purchased land was ₩226,530 million.

51-9 Details of compensation for standing directors and executive officers for

the years ended December 31, 2022 and 2021 are summarized as follows (Korean won in millions):

Classification	2022	2021
Short-term employee payment	19,986	19,778
Retirement benefit	682	961
Share-based payment	3,297	4,337

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