IMPORTANT NOTICE

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PROSPECTUS SUPPLEMENT
(To Prospectus Dated July 2, 2021)

The Korea Development Bank

US$1,000,000,000 2.000% Notes due 2025
US$500,000,000 2.250% Notes due 2027

Our US$1,000,000,000 aggregate principal amount of notes due 2025 (the "2025 Notes") will bear interest at a rate of 2.000% per annum and our US$500,000,000 aggregate principal amount of notes due 2027 (the "2027 Notes", and together with the 2025 Notes, the "Notes") will bear interest at a rate of 2.250% per annum. Interest on the Notes is payable semi-annually in arrears on February 24 and August 24 of each year, in each case beginning on August 24, 2022. The 2025 Notes will mature on February 24, 2025 and the 2027 Notes will mature on February 24, 2027.

The Notes will be issued in minimum denominations of US$200,000 principal amount and integral multiples of US$1,000 in excess thereof. The Notes will be represented by one or more global notes registered in the name of a nominee of The Depository Trust Company, as depositary.

The payment of interest and the repayment of principal on the Notes will not be guaranteed by the Government (as defined herein).

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	2025 Notes		2027 Notes	
	Per Note	Total	Per Note	Total
Public offering price	99.633%	US$996,330,000	99.489%	US$497,445,000
Underwriting discount	0.300%	US$ 3,000,000	0.300%	US$ 1,500,000
Proceeds to us (before deduction of expenses)	99.333%	US$993,330,000	99.189%	US$495,945,000

In addition to the initial public offering price, you will have to pay for accrued interest, if any, from and including February 24, 2022.

Approvals in-principle have been received from the Singapore Exchange Securities Trading Limited (the "SGX-ST") for the listing and quotation of the Notes on the SGX-ST. The SGX-ST assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained in this prospectus supplement and the accompanying prospectus. Approval in-principle from, admission to the Official List of, and listing and quotation of the Notes on, the SGX-ST are not to be taken as an indication of the merits of us or the Notes. Currently, there is no public market for the Notes.

We expect to make delivery of the Notes to investors through the book-entry facilities of The Depository Trust Company on or about February 24, 2022.

Joint Bookrunners and Lead Managers

BNP PARIBAS

BofA Securities

HSBC

J.P. Morgan

KDB Asia

Société Générale
Corporate & Investment Banking

UBS

Co-Manager

KEXIM Asia Limited

Prospectus Supplement Dated February 16, 2022

You should rely only on the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with different information. We are not making an offer to sell these securities in any state or jurisdiction where the offer or sale is not permitted.

TABLE OF CONTENTS

Prospectus Supplement

	Page
Summary of the Offering	S-5
Use of Proceeds	S-7
Recent Developments	S-8
Description of the Notes	S-152
Clearance and Settlement	S-154
Taxation	S-157
Underwriting	S-158
Legal Matters	S-164
Official Statements and Documents	S-164
General Information	S-164

Prospectus

	Page
CERTAIN DEFINED TERMS AND CONVENTIONS	1
USE OF PROCEEDS	2
THE KOREA DEVELOPMENT BANK	3
Overview	3
Capitalization	5
Business	6
Selected Financial Statement Data	8
Operations	15
Sources of Funds	22
Debt	24
Overseas Operations	25
Property	26
Directors and Management; Employees	26
Tables and Supplementary Information	26
Financial Statements and the Auditors	33
THE REPUBLIC OF KOREA	170
Land and History	170
Government and Politics	172
The Economy	175
Principal Sectors of the Economy	184
The Financial System	191
Monetary Policy	196
Balance of Payments and Foreign Trade	200
Government Finance	208
Debt	210
Tables and Supplementary Information	213

	Page
DESCRIPTION OF THE SECURITIES	216
Description of Debt Securities	216
Description of Warrants	223
Terms Applicable to Debt Securities and Warrants	223
Description of Guarantees to be Issued by Us	224
Description of Guarantees to be Issued by The Republic of Korea	225
LIMITATIONS ON ISSUANCE OF BEARER DEBT SECURITIES AND BEARER WARRANTS	226
TAXATION	227
Korean Taxation	227
U.S. Federal Income Tax Considerations	229
PLAN OF DISTRIBUTION	237
LEGAL MATTERS	238
AUTHORIZED REPRESENTATIVES IN THE UNITED STATES	238
OFFICIAL STATEMENTS AND DOCUMENTS	238
EXPERTS	238
FORWARD-LOOKING STATEMENTS	239
FURTHER INFORMATION	241

Certain Defined Terms

All references to "we" or "us" mean The Korea Development Bank. All references to "Korea" or the "Republic" contained in this prospectus supplement mean The Republic of Korea. All references to the "Government" mean the government of Korea. Terms used but not defined in this prospectus supplement shall have the same meanings given to them in the accompanying prospectus.

Our separate financial information as of December 31, 2020, June 30, 2021 and September 30, 2021 and for the six months ended June 30, 2020 and 2021 and the nine months ended September 30, 2020 and 2021 included in this prospectus supplement has been prepared in accordance with International Financial Reporting Standards as adopted in Korea ("Korean IFRS" or "K-IFRS"). References in this prospectus supplement to "separate" financial statements and information are to financial statements and information prepared on a non-consolidated basis. Unless specified otherwise, our financial and other information included in this prospectus supplement is presented on a separate basis in accordance with Korean IFRS and does not include such information with respect to our subsidiaries.

In this prospectus supplement and the accompanying prospectus, where information has been provided in units of thousands, millions or billions, such amounts have been rounded up or down. Accordingly, actual numbers may differ from those contained herein due to rounding. Any discrepancy between the stated total amount and the actual sum of the itemized amounts listed in a table is due to rounding.

Additional Information

The information in this prospectus supplement is in addition to the information contained in our prospectus dated July 2, 2021. The accompanying prospectus contains information regarding us and Korea, as well as a description of some terms of the Notes. You can find further information regarding us, Korea and the Notes in registration statement no. 333-246071, as amended, relating to our debt securities, with or without warrants, and guarantees, which is on file with the U.S. Securities and Exchange Commission.

We are Responsible for the Accuracy of the Information in this Document

We are responsible for the accuracy of the information in this document and confirm that to the best of our knowledge we have included all facts that should be included not to mislead potential investors. The SGX-ST assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained in this prospectus supplement and the accompanying prospectus. Approval in-principle from, admission to the Official List of, and listing and quotation of the Notes on, the SGX-ST are not to be taken as an indication of the merits of us or the Notes.

Not an Offer if Prohibited by Law

The distribution of this prospectus supplement and the accompanying prospectus, and the offer of the Notes, may be legally restricted in some countries. If you wish to distribute this prospectus supplement or the accompanying prospectus, you should observe any restrictions. This prospectus supplement and the accompanying prospectus should not be considered an offer and should not be used to make an offer, in any state or country which prohibits the offering.

The Notes may not be offered or sold in Korea, directly or indirectly, or to any resident of Korea, except as permitted by Korean law. For more information, see "Underwriting—Foreign Selling Restrictions."

The Notes 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"); or (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.

The Notes 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"); or (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 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.

Information Presented Accurate as of Date of Document

This prospectus supplement and the accompanying prospectus are the only documents on which you should rely for information about the offering. We have authorized no one to provide you with different information. You should not assume that the information in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date on the front of each document.

SUMMARY OF THE OFFERING

This summary highlights selected information from this prospectus supplement and the accompanying prospectus and may not contain all of the information that is important to you. To understand the terms of our Notes, you should carefully read this prospectus supplement and the accompanying prospectus.

The Notes

We are offering US$1,000,000,000 aggregate principal amount of 2.000% notes due February 24, 2025 (the "2025 Notes") and US$500,000,000 aggregate principal amount of 2.250% notes due February 24, 2027 (the "2027 Notes", and together with the 2025 Notes, the "Notes").

The 2025 Notes will bear interest at a rate of 2.000% per annum and the 2027 Notes will bear interest at a rate of 2.250% per annum, in each case payable semi-annually in arrears on February 24 and August 24 of each year, beginning on August 24, 2022. Interest on the Notes will accrue from February 24, 2022 and will be computed based on a 360-day year consisting of twelve 30-day months. See "Description of the Notes—Payment of Principal and Interest."

The Notes will be issued in minimum denominations of US$200,000 principal amount and integral multiples of US$1,000 in excess thereof. The Notes will be represented by one or more global securities registered in the name of a nominee of The Depository Trust Company ("DTC"), as depositary.

The payment of interest and the repayment of principal on the Notes will not be guaranteed by the Government.

We do not have any right to redeem the Notes prior to maturity.

Listing

Approvals in-principle have been received from the SGX-ST for the listing and quotation of the Notes on the SGX-ST. Settlement of the Notes is not conditioned on obtaining the listing. For so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, the Notes, 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). Accordingly, the Notes, if traded on the SGX-ST, will be traded in a minimum board lot size of US$200,000.

Form and Settlement

We will issue each series of the Notes in the form of one or more fully registered global notes, registered in the name of a nominee of DTC, as depositary. Except as described in the accompanying prospectus under "Description of the Securities—Description of Debt Securities—Global Securities," the global notes will not be exchangeable for Notes in definitive registered form, and will not be issued in definitive registered form. Financial institutions, acting as direct and indirect participants in DTC, will represent your beneficial interests in the global notes. These financial institutions will record the ownership and transfer of your beneficial interest through book-entry accounts. You may hold your beneficial interests in the Notes through Euroclear Bank S.A./N.V. ("Euroclear") or Clearstream Banking, *société anonyme* ("Clearstream") if you are a participant in such systems, or indirectly through organizations that are participants in such systems. Any secondary market trading of book-entry interests in the Notes will take place through DTC participants, including Euroclear and Clearstream. See "Clearance and Settlement—Transfers Within and Between DTC, Euroclear and Clearstream".

Further Issues

We may from time to time, without the consent of the holders of the Notes, create and issue additional debt securities with the same terms and conditions as either series of the Notes in all respects so that such further issue shall be consolidated and form a single series with the relevant series of the Notes. We will not issue any such additional debt securities unless such additional securities have less than a *de minimis* amount of original issue discount or such issuance would otherwise constitute a "qualified reopening" for U.S. federal income tax purposes.

Delivery of the Notes

We expect to make delivery of the Notes, against payment in same-day funds on or about February 24, 2022, which we expect will be the fifth business day following the date of this prospectus supplement, referred to as "T+5." You should note that initial trading of the Notes may be affected by the T+5 settlement. See "Underwriting—Delivery of the Notes".

Underwriting

KDB Asia Limited, one of the underwriters, is our affiliate and has agreed to offer and sell the Notes only outside the United States to non-U.S. persons. See "Underwriting—Relationship with the Underwriters".

USE OF PROCEEDS

The net proceeds from the issue of the Notes, after deducting the underwriting discount but not estimated expenses, will be US$1,489,275,000. We will use the net proceeds from the sale of the 2025 Notes and the 2027 Notes for our general operations, including extending foreign currency loans and repayment of our maturing debt and other obligations.

RECENT DEVELOPMENTS

This section provides information that supplements the information about our bank and the Republic included under the headings corresponding to the headings below in the accompanying prospectus dated July 2, 2021. Defined terms used in this section have the meanings given to them in the accompanying prospectus. If the information in this section differs from the information in the accompanying prospectus, you should rely on the information in this section.

THE KOREA DEVELOPMENT BANK

Unless specified otherwise, the information provided below is stated on a separate basis in accordance with Korean IFRS ("K-IFRS").

Overview

As of June 30, 2021, we had ₩167,372.2 billion of loans outstanding (including loans, call loans, domestic usance, bills of exchange bought, local letters of credit negotiation and loan-type suspense accounts pursuant to the applicable guidelines without adjusting for allowance for loan losses, present value discounts and deferred loan fees), total assets of ₩275,830.0 billion and total equity of ₩39,758.9 billion, as compared to ₩159,083.6 billion of loans outstanding, ₩251,852.0 billion of total assets and ₩30,382.5 billion of total equity as of December 31, 2020. For the six months ended June 30, 2021, we recorded interest income of ₩1,993.3 billion, interest expense of ₩1,206.3 billion and net income of ₩2,377.6 billion, as compared to ₩2,353.1 billion of interest income, ₩1,771.8 billion of interest expense and ₩369.3 billion of net income for the six months ended June 30, 2020. See "—Selected Financial Statement Data."

Capitalization

As of September 30, 2021, our authorized capital was ₩30,000 billion and our capitalization was as follows:

	September 30, 2021[1] (billions of won) (unaudited)
Long-term debt[2][3]:	
Won currency borrowings	3,852.6
Industrial finance bonds	86,895.0
Foreign currency borrowings	505.7
Total long-term debt	91,253.3
Capital:	
Paid-in capital	21,886.6
Capital surplus	2,479.0
Retained earnings[4]	7,732.1
Accumulated other comprehensive income	6,335.1
Total capital	38,432.7
Total capitalization	129,686.0

(1) Except as disclosed in this prospectus supplement, there has been no material change in our capitalization since September 30, 2021.

(2) We have translated borrowings in foreign currencies into Won at the rate of W1,184.90 to US$1.00, which was the market average exchange rate, as announced by the Seoul Money Brokerage Services Ltd., on September 30, 2021.

(3) As of September 30, 2021, we had confirmed acceptances and guarantees totaling W7,449.6 billion under outstanding guarantees issued on behalf of our clients.
(4) Includes planned regulatory reserve for credit losses of W482.9 billion as of September 30, 2021. If our allowance for credit losses is deemed insufficient for regulatory purposes, we compensate for the difference by recording a regulatory reserve for credit losses, which is shown as a separate item included in retained earnings.

Business

Government Support and Supervision

The Government contributed ₩510.0 billion and ₩610.8 billion in cash to our capital in January and May 2021. As of September 30, 2021, our paid-in capital was ₩21,886.6 billion compared to ₩20,765.7 billion as of December 31, 2020.

Selected Financial Statement Data

Recent Developments

As of September 30, 2021, we had ₩173,623.1 billion of loans outstanding (including loans, call loans, domestic usance, bills of exchange bought, local letters of credit negotiation and loan-type suspense accounts pursuant to the applicable guidelines without adjusting for allowance for loan losses, present value discounts and deferred loan fees), total assets of ₩282,252.9 billion and total equity of ₩38,432.7 billion, as compared to ₩159,083.6 billion of loans outstanding, ₩251,852.0 billion of total assets and ₩30,382.5 billion of total equity as of December 31, 2020. For the nine months ended September 30, 2021, we recorded interest income of ₩3,012.2 billion, interest expense of ₩1,812.1 billion and net income of ₩2,843.9 billion, as compared to ₩3,434.4 billion of interest income, ₩2,497.1 billion of interest expense and ₩456.5 billion of net income for the nine months ended September 30, 2020.

The following tables present our selected separate financial information for the nine months ended September 30, 2020 and 2021 and as of December 31, 2020 and September 30, 2021, which has been derived from our unaudited separate financial statements as of December 31, 2020 and September 30, 2021 and for the nine months ended September 30, 2021 and 2020 prepared in accordance with K-IFRS.

Separate K-IFRS Financial Statement Data

	Nine Months Ended September 30,	
	2020	2021
	(billions of Won) (unaudited)	
Income Statement Data		
Total Interest Income	3,434.4	3,012.2
Total Interest Expenses	2,497.1	1,812.1
Net Interest Income	937.3	1,200.1
Operating Income	985.6	3,203.6
Income before Income Tax	583.1	3,644.4
Income Tax Expense	126.7	800.5
Net Income	456.5	2,843.9

	As of December 31, 2020	As of September 30, 2021
	(billions of Won) (unaudited)	
Statements of Financial Position Data		
Total Loans[(1)]	159,083.6	173,623.1
Total Borrowings[(2)]	204,780.7	221,299.1
Total Assets	251,852.0	282,252.9
Total Liabilities	221,469.5	243,820.2
Equity	30,382.5	38,432.7

(1) Gross amount, which includes loans for facility development, loans for working capital, inter-bank loans, private loans, off-shore loan receivables, loans borrowed from overseas financial institutions, bills bought in foreign currencies, advance payments on acceptances and guarantees and other loans without adjusting for allowance for loan losses, present value discounts and deferred loan fees.

(2) Total borrowings include financial liabilities designated at fair value through profit or loss, deposits, borrowings and debentures.

Nine Months Ended September 30, 2021

For the nine months ended September 30, 2021, we had net income of ₩2,843.9 billion compared to net income of ₩456.5 billion in the corresponding period of 2020, on a separate K-IFRS basis. The principal factors for such increase in net income included:

- a net gain on disposal of loans measured at fair value through profit or loss of ₩1,850.3 billion in the nine months ended September 30, 2021 compared to a net loss on disposal of such loans of ₩17.5 billion in the corresponding period of 2020, primarily as a result of gains recognized in connection with the exercise of our right to convert our convertible bonds issued by HMM Company Limited into common shares, which took place in June 2021;

- a reversal of impairment loss on investments in subsidiaries and associates of ₩466.8 billion in the nine months ended September 30, 2021, primarily due to a reversal of impairment losses recognized in connection with the upcoming sale of our stake in Daewoo Engineering & Construction, compared to an impairment loss on such investments of ₩155.1 billion in the corresponding period of 2020;

- an increase in dividend income to ₩1,037.8 billion in the nine months ended September 30, 2021 from ₩543.0 billion in the corresponding period of 2020, primarily due to an increase in dividends received from the Korea Electric Power Corporation during the nine months ended September 30, 2021 compared to the corresponding period of 2020; and

- an increase in net interest income to ₩1,200.1 billion in the nine months ended September 30, 2021 from ₩937.3 billion in the corresponding period of 2020, primarily due to a decrease in interest expense to ₩1,812.1 billion in the nine months ended September 30, 2021 from ₩2,497.1 billion in the corresponding period 2020, which outpaced the decrease in interest income to ₩3,012.2 billion in the nine months ended September 30, 2021 from ₩3,434.4 billion in the corresponding period of 2020. The decreases in our interest expense and interest income primarily reflected the decrease in the general level of interest rates in Korea in the nine months ended September 30, 2021 compared to the corresponding period of 2020.

The above factors were partially offset by an increase in income tax expense to ₩800.5 billion in the nine months ended September 30, 2021 from ₩126.7 billion in the corresponding period of 2020, primarily due to an increase in income before income tax to ₩3,644.4 billion in the nine months ended September 30, 2021 from ₩583.1 billion in the corresponding period of 2020.

Loans to Financially Troubled Companies

We have credit exposure (including loans, guarantees and equity investments) to a number of financially troubled Korean companies including DSME, HMM Company Limited (formerly, Hyundai Merchant Marine Co., Ltd.), HJ Shipbuilding & Construction Co., Ltd. (formerly, Hanjin Heavy Industries and Construction Co., Ltd.), Daehan Shipbuilding Co., Ltd., K Shipbuilding Co., Ltd. (formerly, STX Offshore & Shipbuilding), KG Dongbu Steel Co., Ltd., Doosan Heavy Industries & Construction Co., Ltd., Hyundai Doosan Infracore Co., Ltd. (formerly, Doosan Infracore Co.), Ltd. and GM Korea Company. As of September 30, 2021, our credit extended to these companies totaled ₩23,483.7 billion, accounting for 8.3% of our total assets as of such date.

The following table provides the loan amounts (including loans classified as substandard or below and equity investment classified as estimated loss or below) extended to these companies as of the dates indicated:

Company	As of December 31, 2020	As of September 30, 2021	Primary Reason for Change
	(billions of won)		
HMM Company Limited	₩ 4,771.5	₩12,447.8	Increase due to an increase in the value of perpetual bonds
DSME	4,463.1	5,848.4	Increase due to an increase in refund guarantees and an increase in the value of the shares of DSME
Doosan Heavy Industries & Construction	1,644.2	1,520.9	Decrease due to redemption of loans
Daehan Shipbuilding	1,047.4	1,034.7	Decrease due to redemption of loans
KG Dongbu Steel	695.9	788.7	Increase due to an increase in foreign currency loans
HJ Shipbuilding & Construction	927.2	759.0	Decrease due to a decrease in loans
GM Korea Company	436.9	402.9	Decrease due to a decline in the value of the shares of GM Korea Company
K Shipbuilding	531.3	392.3	Decrease due to a decrease in loans
Hyundai Doosan Infracore	688.2	288.9	Decrease due to redemption of loans
Total	₩15,205.7	₩23,483.6	

As of September 30, 2021, we established allowances of ₩32.3 billion for our exposure to HMM Company Limited, ₩785.7 billion for DSME, ₩14.0 billion for Doosan Heavy Industries & Construction, ₩386.1 billion for Daehan Shipbuilding, ₩3.4 billion for KG Dongbu Steel, ₩14.1 billion for HJ Shipbuilding & Construction, none for GM Korea, ₩17.7 billion for K Shipbuilding and ₩1.0 billion for Hyundai Doosan Infracore.

DSME, one of the largest shipbuilding and offshore construction companies in Korea, has suffered from financial difficulties resulting from a prolonged slowdown in the global shipbuilding industry, and we have been the largest shareholder of DSME since 2015 through a series of financing arrangements. See "—Results of Operations—Loans to Financially Troubled Companies." In March 2019, Hyundai Heavy Industries entered into an agreement with us to acquire DSME, pursuant to which we had planned to transfer all of our shares in DSME amounting to approximately ₩2 trillion (in the form of contributions-in-kind) to a newly established sub-holding company spun off from Hyundai Heavy Industries. However, in January 2022, the European Commission announced that it would not grant approval for the acquisition of DSME by Hyundai Heavy Industries due to anti-competition concerns for LNG carriers, and the consummation of the acquisition currently remains uncertain.

In the first nine months of 2021, we sold non-performing loans worth ₩244.2 billion to UAMCO Ltd.

Results of Operations

The following tables present our selected separate financial information as of December 31, 2020 and June 30, 2021 and for the six months ended June 30, 2020 and 2021, which has been derived from our unaudited separate financial statements as of June 30, 2021 and for the six months ended June 30, 2021 and 2020 prepared in accordance with K-IFRS and included in this prospectus supplement.

Separate K-IFRS Financial Statement Data

	Six Months Ended June 30,	
	2020	2021
	(billions of won) (unaudited)	
Income Statement Data		
Total Interest Income	2,353.1	1,993.3
Total Interest Expenses	1,771.8	1,206.3
Net Interest Income	581.3	786.9
Operating Income	688.9	2,362.4
Income before Income Tax	473.8	2,991.6
Income Tax Expense (Benefit)	104.5	614.0
Net Income	369.3	2,377.6

	As of December 31, 2020	As of June 30, 2021
	(billions of won) (unaudited)	
Statements of Financial Position Data		
Total Loans[(1)]	159,083.6	167,372.2
Total Borrowings[(2)]	204,780.7	215,119.8
Total Assets	251,852.0	275,830.0
Total Liabilities	221,469.5	236,071.1
Equity	30,382.5	39,758.9

(1) Gross amount, which includes loans for facility development, loans for working capital, inter-bank loans, private loans, off-shore loan receivables, loans borrowed from overseas financial institutions, bills bought in foreign currencies, advance payments on acceptances and guarantees and other loans without adjusting for allowance for loan losses, present value discounts and deferred loan fees. See Note 9 of the notes to our unaudited separate financial statements as of June 30, 2021 and for the six months ended June 30, 2021 and 2020 included in this prospectus supplement.

(2) Total borrowings include financial liabilities designated at fair value through profit or loss due to customers, borrowings and debt issued.

Six Months Ended June 30, 2021

In the first half of 2021, we had net income of ₩2,377.6 billion compared to net income of ₩369.3 billion in the corresponding period of 2020, on a separate basis. The principal factors for the increase in net income included:

- an increase in gains on disposal of loans measured at fair value through profit or loss to ₩1,832.6 billion in the first half of 2021 from ₩2.7 billion in the corresponding period of 2020, primarily due to the exercise of our right to convert our convertible bonds of HMM Company Limited into common shares, the value of which increased significantly subsequent to such conversion in in the first half of 2021;

- an increase in net interest income to ₩786.9 billion in the first half of 20201 from ₩581.3 billion in the corresponding period of 2020, primarily due to a decrease in interest expense that outpaced the decrease in interest income, which reflected a decrease in the general level of interest rates in Korea in the first half of 2021 compared to the corresponding period of 2020; and
- an increase in dividend income to ₩642.6 billion in the first half of 2021 from ₩400.6 billion in the corresponding period of 2020, primarily due to an increase in dividends received from Korea Electric Power Corporation in the first half of 2021 compared to the corresponding period of 2020.

The above factors were partially offset by an increase in provision for credit losses to ₩836.1 billion in the first half of 2021 from ₩204.7 billion in the corresponding period of 2020, primarily due to an increase in expected credit loss in anticipation of a deterioration in the overall asset quality of our loan portfolio due to the ongoing global outbreak of the COVID-19 pandemic.

Allowances for Loan Losses and Loans in Arrears

As of June 30, 2021, we had established allowances of ₩4,474.3 billion for loan losses under Korean IFRS.

Certain of our customers have restructured loans with their creditor banks. As of June 30, 2021, we have provided loans of ₩938.7 billion for companies under workout, court receivership, court mediation and other restructuring procedures. As of June 30, 2021, we had established allowances of ₩440.0 billion for loan losses with respect to such companies. We cannot assure you that actual credit losses from the loans to these customers will not exceed the allowances established.

The following table provides information on our loan loss allowances.

		As of June 30, 2021[1]	
		Loan Amount	Loan Loss Allowances
		(in billions of won, except percentages)	
Loan Classification	Normal[2]	₩161,421.2	₩2,024.2
	Precautionary	3,238.2	879.7
	Substandard	1,563.4	731.2
	Doubtful	152.2	133.9
	Expected Loss	997.2	705.3
	Total	₩167,372.2	₩4,474.3

(1) These figures include loans for facility development, loans for working capital, loans for households, inter-bank loans, private loans, off-shore loan receivables, loans borrowed from overseas financial institutions, bills bought in foreign currencies, advance payments on acceptances and guarantees and other loans.
(2) Includes loans guaranteed by the Government. Under Korean IFRS, we establish loan loss allowances for all loans including loans guaranteed by the Government.

As of June 30, 2021, our non-performing loans totaled ₩2,712.8 billion, representing 1.6% of our outstanding loans as of such date. Non-performing loans are defined as loans that are classified as substandard or below. On June 30, 2021, our legal reserve was ₩1,551.2 billion, representing 0.9% of our outstanding loans as of such date.

Loans to Financially Troubled Companies

We have credit exposure (including loans, guarantees and equity investments) to a number of financially troubled Korean companies including DSME, HMM Company Limited (formerly, Hyundai Merchant Marine

Co., Ltd.), HJ Shipbuilding & Construction (formerly, Hanjin Heavy Industries and Construction Co., Ltd.), Daehan Shipbuilding Co., Ltd., K Shipbuilding Co., Ltd. (formerly, STX Offshore & Shipbuilding), KG Dongbu Steel Co., Ltd., Doosan Heavy Industries & Construction Co., Ltd., Hyundai Doosan Infracore Co., Ltd. (formerly, Doosan Infracore Co., Ltd.) and GM Korea Company. As of June 30, 2021, our credit extended to these companies totaled ₩26,349.2 billion, accounting for 9.6% of our total assets as of such date.

The following table provides the loan amounts (including loans classified as substandard or below and equity investment classified as estimated loss or below) extended to these companies as of the dates indicated:

Company	As of December 31, 2020	As of June 30, 2021	Primary Reason for Change
	(billions of won)		
HMM Company Limited	₩ 4,771.5	₩15,191.8	Increase due to increase in the value of perpetual bonds
DSME	4,463.1	5,656.8	Increase due to increase in refund guarantees and an increase in the value of the shares of DSME
Doosan Heavy Industries & Construction	1,644.2	1,332.7	Decrease due to redemption of loans
Daehan Shipbuilding	1,047.4	989.5	Decrease due to redemption of loans
HJ Shipbuilding & Construction	927.2	860.9	Decrease due to decrease in loans
KG Dongbu Steel	695.9	746.8	Increase due to an increase in usance bills
Hyundai Doosan Infracore	688.2	633.9	Decrease due to redemption of loans
K Shipbuilding	531.3	533.9	Increase due to increase in loans
GM Korea Company	436.9	402.9	Decrease due to a decline in the value of the shares of GM Korea Company
Total	₩15,205.7	₩26,349.2	

As of June 30, 2021, we established allowances of ₩35.6 billion for our exposure to HMM Company Limited, ₩1,235.2 billion for DSME, ₩92.6 billion for Doosan Heavy Industries & Construction, ₩432.8 billion for Daehan Shipbuilding, ₩136.4 billion for HJ Shipbuilding & Construction Co., Ltd., ₩4.1 billion for KG Dongbu Steel, ₩1.7 billion for Hyundai Doosan Infracore, ₩415.3 billion for K Shipbuilding, and none for GM Korea.

During 2015, DSME, one of the largest shipbuilding and offshore construction companies in Korea, suffered from financial difficulties primarily due to significant losses incurred in connection with the construction of offshore plants resulting from a prolonged slowdown in the global shipbuilding industry. In October 2015, we announced that we, along with The Export-Import Bank of Korea, would extend additional financing of up to ₩4.2 trillion to DSME by the end of 2016 in the form of debt-to-equity swaps, extension of additional loans and provision of other forms of liquidity support. In this connection, in December 2015, we acquired ₩382.9 billion of new equity shares of DSME, which increased our equity interest in DSME from 31.5% to 49.7%, and we became its largest shareholder. In December 2016, we increased our equity interest in DSME to 79.0% through an additional debt for equity swap. In March 2017, we and The Export-Import Bank of Korea announced a second joint plan to provide an additional ₩2.9 trillion in financial support to DSME, which was approved by the other creditors in April 2017. Based on such plan, we provided additional debt-to-equity swaps of ₩0.3 trillion in June 2017 and The Export-Import Bank of Korea exchanged a term loan in the amount of ₩1.28 trillion provided by it to DSME for perpetual bonds issued by DSME. Other creditors also provided debt-to-equity swaps for up to 80% of their debt with DSME and rescheduled the maturities of the remainder.

In July 2016, HMM Company Limited executed a debt-to-equity swap with us and other creditors, as part of its continued restructuring led by us as its largest creditor, and affiliates of the Hyundai group reduced their shareholdings in HMM Company Limited, which resulted in us becoming the largest shareholder of HMM Company Limited. In October 2018, we injected ₩1 trillion in emergency aid into HMM Company Limited in order to normalize its operations by purchasing bonds with warrants and convertible bonds issued by HMM Company Limited. In June 2021, we exercised our right to convert ₩300 billion of our convertible bonds into 60 million common shares of HMM Company Limited. As a result of such conversion, our equity interest in HMM Company Limited amounted to 25.0% as of June 30, 2021.

In January 2019, Hanjin Heavy Industries and Construction Philippines, a subsidiary of HJ Shipbuilding & Construction at Subic Bay in the Philippines, declared bankruptcy and filed for corporate rehabilitation with a regional trial court following its failure to comply with loan obligations to its Philippine lenders. In March 2019, creditors in Korea (including us) and lenders in the Philippines agreed on, and executed, a business normalization plan including a debt-to-equity swap and capital reduction for HJ Shipbuilding & Construction, as a result of which we became the largest shareholder of HJ Shipbuilding & Construction. In September 2021, creditors of HJ Shipbuilding & Construction (including us) sold a 66.85% interest in the company to a consortium led by Dongbu Corporation.

K Shipbuilding has faced financial difficulties for the past several years due to prolonged slowdowns in the Korean shipbuilding and shipping industries. K Shipbuilding, which had filed for court receivership in May 2016 and executed debt-to-equity swaps with their creditors (including us) in December 2016 under a rehabilitation plan through which we increased our equity interest to 43.9% and became its largest shareholder, exited court receivership in July 2017. In November 2020, we selected a consortium consisting of KH Investment and UAMCO Ltd. as the preferred bidder for the sale of shares of K Shipbuilding. In July 2021, the consortium acquired a 97% interest in K Shipbuilding for ₩250 billion.

Dongbu Steel has also been facing financial difficulties for the past several years due to the prolonged slowdown in the Korean construction industry and in the Korean economy in general. Dongbu Steel entered into a voluntary workout agreement with its creditors, including us, in October 2015. Such agreement expired in September 2019 when KG Steel, a subsidiary of KG Group established in May 2019, became the largest shareholder of Dongbu Steel, which was subsequently re-named to KG Dongbu Steel. As of June 30, 2021, our equity interest in KG Dongbu Steel amounted to 4.0%.

Doosan Heavy Industries & Construction Co., Ltd. has also faced financial difficulties due to the prolonged slowdown in the Korean heavy and construction industries and in the Korean economy in general, as well as the Government's initiative to support clean and renewable energy sources while phasing out nuclear and coal-fired plants in recent years. Doosan Heavy Industries submitted a self-rescue plan to its creditors, including us, and we agreed to provide Doosan Heavy Industries with loans amounting to ₩500 billion, ₩400 billion and ₩600 billion in March, April and June 2020, respectively. In August 2021, as part of the self-rescue plan, a consortium comprised of Hyundai Heavy Industries Holdings Co. and KDB Investment, our investment unit, purchased a 35.0% equity interest in Hyundai Doosan Infracore from Doosan Heavy Industries & Construction Co., Ltd. for ₩850 billion.

In the first half of 2021, we sold non-performing loans worth ₩244.2 billion to UAMCO Ltd.

Our large exposure to financially troubled companies in Korea means that we are also exposed to financial difficulties experienced by our borrowers as a result of, among other things, adverse economic conditions in Korea and globally, which could disrupt the business, activities and operations of many of our borrowers, which in turn could have an adverse impact on the ability of our borrowers to meet existing payment or other obligations to us. For example, COVID-19, an infectious disease that was first reported to have been transmitted to humans in late 2019 and was declared a "pandemic" by the World Health Organization in March 2020, has spread globally over the course of 2020 and 2021 to date and has led to significant global and domestic economic

and financial disruptions. See "The Republic of Korea—The Economy—Worldwide Economic and Financial Difficulties." The COVID-19 pandemic has had an especially direct negative impact on certain of our borrowers, among them the airline industry, which has been in significant need of liquidity following a sharp decline in aircraft traffic and a dramatic increase in the number of suspended flights due to entry restrictions imposed by many countries in response to COVID-19 throughout 2020 and 2021 to date.

In May 2020, we injected ₩720 billion (consisting of ₩420 billion in securities collateralized by income receivables, ₩180 billion in perpetual bonds and ₩120 billion in loans) into Korean Air Lines Co., Ltd., a subsidiary of Hanjin Group and Korea's largest airline and flagship carrier, in order to provide liquidity support. As of June 30, 2021, our loan amounts (including loans classified as substandard or below and equity investment classified as estimated loss or below) extended to Korean Air Lines amounted to ₩1,233.9 billion, a decrease from ₩1,374.5 billion as of December 31, 2020.

In April 2020, we provided Asiana Airlines, a subsidiary of Kumho Asiana Group and the second-largest airline in Korea, with liquidity support by providing a credit line in the amount of ₩1.2 trillion. Our decision to take such measure was largely driven by a need to address Asiana Airlines' financial difficulties resulting from the negative impact of the COVID-19 pandemic on the airline industry. In September 2020, we decided to inject ₩2.4 trillion from the Key Industry Stabilization Fund (explained further below) into Asiana Airlines in order to normalize its operations following the cancellation of plans by a consortium led by HDC Hyundai Development to acquire Asiana Airlines. Subsequently, in November 2020, we signed an investment agreement with Hanjin KAL, the parent company of Korean Air Lines, to inject ₩800 billion (consisting of ₩500 billion through participation in a rights offering and ₩300 billion through purchase of perpetual exchangeable bonds) into Hanjin KAL in connection with Korean Air Lines' acquisition of a 63.9% stake in Asiana Airlines through a transaction valued at ₩1.8 trillion (the "Acquisition"), subsequent to which we expect our equity interest in Hanjin KAL to amount to approximately 10.7%. In December 2020, Asiana Airlines' shareholders approved a 3-to-1 share capital reduction plan, which was aimed at offsetting part of Asiana Airlines' deficits in preparation for the Acquisition. The consummation of the Acquisition currently remains subject to a number of factors, including uncertainties regarding opposition to the Acquisition by labor unions of Korean Air Lines and Asiana Airlines, and approval of the Acquisition from antitrust authorities of a number of jurisdictions, including Korea, the United States, the European Union, China, Japan and Vietnam, which have yet to be obtained. If the Acquisition is completed, Asiana Airlines would become Korean Air Lines' consolidated subsidiary. In June 2021, we approved an integration plan pursuant to which Korean Air Lines would merge with Asiana Airlines by 2024.

In addition, the ongoing global outbreak of the COVID-19 pandemic has prompted the Government in 2020 and 2021 to date to implement various emergency aid initiatives involving Korean banks, including us, to provide liquidity assistance to a range of financially troubled companies. Such initiatives include, among others, the provision of new loans provided to financially troubled companies, extension of maturity dates for existing loans and suspension of interest payment obligations for an extended period of time. Most recently, in May 2020, the Government provided for the establishment of the Key Industry Stabilization Fund, a fund amounting to ₩40 trillion to be administered by us mainly through the issuance of industrial finance bonds, to support businesses in certain key industries that face financial difficulties resulting from the ongoing global outbreak of the COVID-19 pandemic, such as the air transport and maritime industries. The Key Industry Stabilization Fund has supported those businesses that meet certain pre-determined criteria, including those aimed at stabilizing the job markets. Our participation in such Government-led initiatives may lead us to extend credit to financially troubled 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. Furthermore, there is no guarantee that the financial condition and liquidity position of our financially troubled 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 financially troubled borrowers resulting from such Government-led initiatives may have a material adverse effect on our financial condition and results of operations.

A deterioration in the financial condition of our borrowers, including those described above as well as other companies under workout, court receivership, court mediation and other restructuring procedures, could result in a deterioration in the quality of our loan portfolio. This, in turn, could result in an increase in delinquency ratios, increased charge-offs and higher provisioning, as well as an increase in impairment losses on such loans, particularly if businesses remain closed, the impact of the COVID-19 pandemic on the global economy worsens, or more of our borrowers draw on their lines of credit or seek additional loans from us to help finance their business, which could have a material adverse impact on our business, financial condition or results of operations.

Operations

Loan Operations

The following table sets out, by currency and category of loan, our total outstanding loans as of June 30, 2021:

Loans[1]

	June 30, 2021 (billions of won)
Equipment Capital Loans:	
Domestic currency	₩ 53,224.3
Foreign currency	8,570.5
	61,794.8
Working Capital Loans:	
Domestic currency[2]	65,554.5
Foreign currency	10,164.9
	75,719.4
Other Loans[3]	29,858.0
Total loans	₩167,372.2

(1) Includes loans extended to affiliates.
(2) Includes loans on households.
(3) Includes inter-bank loans, private loans, off-shore loan receivables, loans borrowed from overseas financial institutions, bills bought in foreign currencies, advance payments on acceptances and guarantees and other loans.

As of June 30, 2021, we had ₩167,372.2 billion in outstanding loans, which represents a 5.2% increase from ₩159,083.6 billion of outstanding loans as of December 31, 2020.

Maturities of Outstanding Loans

The following table categorizes our outstanding equipment capital and working capital loans by their remaining maturities:

Outstanding Equipment Capital and Working Capital Loans by Remaining Maturities[1]

	June 30, 2021	As % of June 30, 2021 Total
	(billions of won, except percentages)	
Loans with remaining maturities of one year or less	₩ 58,634.7	42.6%
Loans with remaining maturities of more than one year	78,879.5	57.4
Total	₩137,514.2	100.0%

(1) Includes loans extended to affiliates.

Loans by Industrial Sector

The following table sets out the total amount of our outstanding equipment capital and working capital loans, categorized by industry sector as of June 30, 2021:

Outstanding Equipment Capital and Working Capital Loans by Industry Sector[1]

	June 30, 2021	As % of June 30, 2021 Total
	(billions of won, except percentages)	
Manufacturing	₩ 63,787.6	46.4%
Banking and Insurance	33,340.8	24.2
Transportation	10,200.3	7.4
Public Administration	635.9	0.5
Electric, Gas and Water Supply Industry	3,839.4	2.8
Others[2]	25,710.2	18.7
Total	₩137,514.2	100.0%
Percentage increase from December 31, 2020	4.0%	

(1) Includes loans extended to affiliates.
(2) Includes wholesale and retail trade, real estate and leasing, and construction.

The manufacturing sector accounted for 46.4% of our outstanding equipment capital and working capital loans as of June 30, 2021. As of June 30, 2021, loans to the auto vehicle and trailer manufacturing businesses and the chemical and chemical product manufacturing businesses accounted for 12.8% and 12.7%, respectively, of our outstanding equipment capital and working capital loans to the manufacturing sector.

Industrial Bank of Korea was our single largest borrower as of June 30, 2021, accounting for 5.3% of our outstanding equipment capital and working capital loans. As of June 30, 2021, our five largest borrowers and 20 largest borrowers accounted for 13.2% and 23.9%, respectively, of our outstanding equipment capital and working capital loans.

The following table breaks down the equipment capital and working capital loans to our 20 largest borrowers outstanding as of June 30, 2021 by industry sector:

20 Largest Borrowers by Industry Sector

	As % of June 30, 2021 Total Outstanding Equipment Capital and Working Capital Loans to Our 20 Largest Borrowers
Banking and Insurance	54.0%
Manufacturing	29.0
Transportation	11.5
Others[1]	5.5
Total	100.0

(1) Includes wholesale and retail trade, real estate and leasing, and construction.

Loans by Categories

The following table sets out equipment capital and working capital loans by categories as of June 30, 2021:

	Equipment Capital Loans		Working Capital Loans	
	June 30, 2021	%	June 30, 2021	%
	(billions of won, except percentages)			
Industrial fund loans	₩48,432.8	78.4%	₩48,627.2	64.2%
On-lending loans	2,917.3	4.7	16,002.4	21.1
Foreign currency loans	5,794.5	9.4	1,517.2	2.1
Local currency loans denominated in foreign currencies	2.6	0.0	25.5	0.1
Offshore loans in foreign currencies	2,428.3	3.9	7,753.5	10.2
Government fund loans	115.8	0.2	—	—
Overdraft	—	—	102.0	0.1
Others[1]	2,103.4	3.4	1,691.6	2.2
Total	₩61,794.8	100.0%	₩75,719.4	100.0%

(1) Includes loans on households and loans extended to affiliates.

Guarantee Operations

The following table shows our outstanding guarantees as of June 30, 2021:

	June 30, 2021
	(billions of won)
Acceptances	₩ 332.4
Guarantees on local borrowings	856.9
Guarantees on foreign borrowings	5,794.7
Letters of guarantee for importers	88.7
Total	₩7,072.7

Investments

Our equity investments increased to ₩42,117.3 billion as of June 30, 2021 from ₩38,227.6 billion as of December 31, 2020. As of June 30, 2021, the cost basis of our equity investments subject to restriction under the KDB Act and our Articles of Incorporation totaled ₩19,598.3 billion, equal to 41.0% of our equity investment ceiling.

The following table sets out our equity investments by industry sector on a book value basis as of June 30, 2021:

Equity Investments

	Book Value as of June 30, 2021
	(billions of won)
Electric, Gas and Water Supply Industry	₩18,010.2
Banking and Insurance	11,277.9
Transportation	5,475.0
Real Estate Business	3,777.5
Construction	1,025.0
Manufacturing	660.9
Others	1,890.8
Total	₩42,117.3

As of June 30, 2021, we held total equity investments, on a book value basis, of ₩602.8 billion in one of our five largest borrowers and ₩2,928.0 billion in four of our 20 largest borrowers.

When possible, we use the prevailing market price of a security to determine the value of our interest. However, if no readily ascertainable market value exists for our holdings, we record these investments at the cost of acquisition. With respect to our equity interests in enterprises in which we hold more than 15% of interest, we value these investments annually, with certain exceptions, on a net asset value basis when the investee company releases its financial statements. As of June 30, 2021, the aggregate value of our equity investments accounted for approximately 92.5% of their aggregate cost basis.

Other Activities

As of June 30, 2021, we held in trust cash and other assets totaling ₩35,989.8 billion, and we generated in the first half of 2021 trust fee income equaling ₩63.9 billion.

Source of Funds

Borrowings from the Government

The following table sets out our Government borrowings as of June 30, 2021:

Type of Funds Borrowed	As of June 30, 2021
	(billions of won)
General purpose	₩ 117.0
Special purpose	4,254.5
Total	₩4,371.5

Domestic and International Capital Markets

The following table sets out the outstanding balance of our industrial finance bonds as of June 30, 2021:

Outstanding Balance	As of June 30, 2021
	(billions of won)
Denominated in Won	₩110,087.6
Denominated in other currencies	34,524.7
Total	₩144,612.3

As of June 30, 2021, the aggregate amount of our industrial finance bonds and guarantee obligations (including guarantee obligations relating to loans that had not been borrowed as of June 30, 2021) was ₩156,806.0 billion, equal to 21.9% of our authorized amount under the KDB Act, which was ₩717,617.9 billion.

Foreign Currency Borrowings

As of June 30, 2021, the outstanding amount of our foreign currency borrowings was US$12.9 billion. Our long-term and short-term foreign currency borrowings increased to ₩14,562.4 billion as of June 30, 2021 from ₩12,795.0 billion as of December 31, 2020.

Deposits

As of June 30, 2021, demand deposits held by us totaled ₩1,832.3 billion and time and savings deposits held by us totaled ₩43,344.2 billion.

Debt

Debt Repayment Schedule

The following table sets out our principal repayment schedule as of June 30, 2021:

Debt Principal Repayment Schedule(1)

Currency(2)(3)	Maturing on or before December 31,					
	2021	2022	2023	2024	2025	Thereafter
	(billions of won)					
Won	₩25,878.0	₩43,339.2	₩23,310.9	₩ 7,942.3	₩4,073.7	₩9,870.7
Foreign	15,365.5	9,979.6	6,887.6	6,214.1	4,615.3	5,364.2
Total Won Equivalent	₩41,243.4	₩53,318.8	₩30,198.5	₩14,156.4	₩8,698.0	₩15,234.9

(1) Excludes bonds sold under repurchase agreements and call money.
(2) Borrowings in foreign currencies have been translated into Won at the market average exchange rates on June 30, 2021, as announced by the Seoul Money Brokerage Services Ltd.
(3) We categorize debt with respect to which we have entered into currency swap agreements by our repayment currency under such agreements.

Directors and Management; Employees

Currently, the members of our Board of Directors are:

Position	Name	Expiration of Term
Chief Executive Officer and Chairman of the Board of Directors	Dong Gull Lee	September 10, 2023
Chief Operating Officer and Vice Chairman of the Board of Directors	Dae Hyon Choi	January 2, 2025
Auditor	Tae Hyun Joo	March 14, 2024
Independent Non-executive Directors	Han Hong Cho	June 27, 2023
	Dong Han Yook	June 28, 2022
	Yeong Ook Kim	May 25, 2023
	Kyo Deog Son	March 29, 2022
	Dong Il Jung	November 30, 2023

Financial Statements and the Auditors

Our interim separate financial statements as of June 30, 2021 and for the six months ended June 30, 2021 and 2020 appearing in this prospectus supplement were prepared in conformity with K-IFRS, as summarized in Note 2 of the notes to our unaudited separate financial statements as of June 30, 2021 and for the six months ended June 30, 2021 and 2020 included in this prospectus supplement.

Korea Development Bank

Interim Separate Statements of Financial Position

June 30, 2021 (Unaudited) and December 31, 2020

(In millions of won)	Notes	June 30, 2021	December 31, 2020
Assets			
Cash and due from banks	4,45,46,49	₩ 11,269,255	10,528,978
Securities measured at FVTPL	5,45,46,49	10,272,772	8,320,631
Securities measured at FVOCI	6,39,45,46,49	42,010,506	34,141,325
Securities measured at amortized cost	7,39,45,46,49	2,417,134	785,264
Loans measured at FVTPL	8,45,46,49	701,288	1,434,514
Loans measured at amortized cost	9,45,46,49	162,894,536	155,300,178
Derivative financial assets	10,45,46,47,49	5,146,121	8,329,376
Investments in subsidiaries and associates	11,48	28,325,984	25,553,561
Property and equipment, net	12,48	811,219	811,382
Investment property, net	13,48	81,313	81,065
Intangible assets, net	14,48	167,784	188,417
Current tax assets		1,783	3,722
Assets held for sale	16	2,207,733	1,713,347
Other assets	15,45,46,49	9,522,565	4,660,285
Total assets		₩ 275,829,993	251,852,045
Liabilities			
Financial liabilities measured at FVTPL	17,45,46,49	₩ 1,892,708	1,694,957
Deposits	18,45,46,49	48,875,219	45,879,419
Borrowings	19,45,46,49	20,975,895	18,887,611
Debentures	20,45,46,49	143,375,963	138,318,728
Derivative financial liabilities	10,45,46,47,49	3,653,173	6,305,287
Net defined benefit liabilities	21	70,474	50,546
Provisions	22	1,445,904	1,515,170
Deferred tax liabilities	37	4,821,576	1,719,100
Current tax liabilities		25,104	29,691
Other liabilities	23,45,46,49	10,935,050	7,069,006
Total liabilities		236,071,066	221,469,515
Equity			
Issued capital	1,24	21,886,559	20,765,729
Capital surplus	24	2,479,010	2,484,398
Accumulated other comprehensive income	24	8,142,327	2,064,371
Retained earnings	24	7,251,031	5,068,032
(Regulatory reserve for credit losses of ₩482,885 million as of June 30, 2021 and ₩1,146,038 million as of December 31, 2020, respectively)			
(Required provision for (reversal of) regulatory reserve for credit losses of ₩76,926 million as of June 30, 2021 and ₩(663,153) million as of December 31, 2020, respectively)			
(Planned provision for (reversal of) regulatory reserve for credit losses of ₩76,926 million as of June 30, 2021 and ₩(663,153) million as of December 31, 2020, respectively)			
Total equity		39,758,927	30,382,530
Total liabilities and equity		₩ 275,829,993	251,852,045

See accompanying notes to the interim separate financial statements.

Korea Development Bank

Interim Separate Statements of Comprehensive Income

Six-month periods ended June 30, 2021 and 2020 (Unaudited)

(In millions of won, except earnings per share information)	Notes	June 30, 2021		June 30, 2020	
		Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Interest income	25	₩ 999,352	1,993,256	1,170,560	2,353,110
Interest expense	25	(592,784)	(1,206,346)	(853,780)	(1,771,847)
Net interest income	48	406,568	786,910	316,780	581,263
Net fees and commission income	26	83,928	168,268	77,161	162,846
Dividend income	27	111,067	642,599	140,416	400,605
Net gain (loss) on securities measured at FVTPL	28	5,721	(3,887)	44,090	67,178
Net gain (loss) on financial liabilities measured at FVTPL	29	28,477	106,104	(28,799)	(28,499)
Net gain (loss) on securities measured at FVOCI	30	(6,462)	(9,890)	33,429	52,013
Net gain (loss) on derivatives	31	(30,382)	(131,082)	117,034	(79,021)
Net gain on foreign currency transaction	32	33,580	108,720	21,065	214,221
Other operating income (expense), net	33	989,810	1,900,478	(72,713)	(124,309)
Non-interest income, net		1,215,739	2,781,310	331,683	665,034
Provision for credit losses	34	901,759	836,089	102,828	204,697
General and administrative expenses	35,48	178,727	369,716	172,058	352,701
Operating income	48	541,821	2,362,415	373,577	688,899
Reversal of impairment loss (impairment loss) on investments in subsidiaries and associates		132,334	126,248	(155,388)	(165,865)
Other non-operating income	36	448,205	508,944	863	2,540
Other non-operating expense	36	(745)	(6,011)	807,691	(51,781)
Non-operating income (expense), net		579,794	629,181	653,166	(215,106)
Profit before income taxes		1,121,615	2,991,596	1,026,743	473,793
Income tax expense	37	198,686	613,988	256,665	104,450
Profit for the period	24	922,929	2,377,608	770,078	369,343
(Profit for the period adjusted for regulatory reserve for credit losses: ₩1,081,638 million and ₩2,300,682 million for the three-month and six-month periods ended June 30, 2021, respectively; ₩861,829 million and ₩404,373 million for the three-month and six-month periods ended June 30, 2020, respectively)					
Other comprehensive income for the period, net of tax	24				
Items that are or may be reclassified subsequently to profit or loss:					
Net gain (loss) on securities measured at FVOCI		(13,756)	(56,026)	285,871	173,298
Exchange differences on translation of foreign operations		(3,098)	41,880	(16,508)	32,160
Valuation gain on cash flow hedge		23	657	23	235
Net gain (loss) on hedges of net investments in foreign operations		2,013	(23,963)	9,881	(19,355)
		(14,818)	(37,452)	279,267	186,338
Items that will not be reclassified to profit or loss:					
Net gain (loss) on securities measured at FVOCI		3,083,003	6,130,023	39,295	(142,912)
Fair value changes on financial liabilities designated at fair value due to credit risk		(300)	414	(6,720)	657
		3,082,703	6,130,437	32,575	(142,255)
		3,067,885	6,092,985	311,842	44,083
Total comprehensive income for the period		₩3,990,814	8,470,593	1,081,920	413,426
Earnings per share					
Basic and diluted earnings per share (in won)	38	₩ 215	558	202	98

See accompanying notes to the interim separate financial statements.

Korea Development Bank

Interim Separate Statements of Changes in Equity

Six-month periods ended June 30, 2021 and 2020 (Unaudited)

(In millions of won)	Issued capital	Capital surplus	Accumulated other comprehensive income	Retained earnings	Total equity
Balance at January 1, 2020	₩ 18,663,099	2,494,504	(88,092)	4,733,320	25,802,831
Profit for the period	—	—	—	369,343	369,343
Net gain on securities measured at FVOCI	—	—	95,348	(64,962)	30,386
Exchange differences on translation of foreign operations	—	—	32,160	—	32,160
Valuation gain on cash flow hedge	—	—	235	—	235
Net loss on hedges of net investments in foreign operations	—	—	(19,355)	—	(19,355)
Fair value changes on financial liabilities designated at fair value due to credit risk	—	—	657	—	657
Total comprehensive income for the period	—	—	109,045	304,381	413,426
Dividends	—	—	—	(111,978)	(111,978)
Paid in capital increase	450,500	(2,166)	—	—	448,334
Transaction with owners	450,500	(2,166)	—	(111,978)	336,356
Balance at June 30, 2020	₩ 19,113,599	2,492,338	20,953	4,925,723	26,552,613
Balance at January 1, 2021	₩ 20,765,729	2,484,398	2,064,371	5,068,032	30,382,530
Profit for the period	—	—	—	2,377,608	2,377,608
Net gain on securities measured at FVOCI	—	—	6,058,968	15,029	6,073,997
Exchange differences on translation of foreign operations	—	—	41,880	—	41,880
Valuation gain on cash flow hedge	—	—	657	—	657
Net loss on hedges of net investments in foreign operations	—	—	(23,963)	—	(23,963)
Fair value changes on financial liabilities designated at fair value due to credit risk	—	—	414	—	414
Total comprehensive income for the period	—	—	6,077,956	2,392,637	8,470,593
Dividends	—	—	—	(209,638)	(209,638)
Paid in capital increase	1,120,830	(5,388)	—	—	1,115,442
Transaction with owners	1,120,830	(5,388)	—	(209,638)	905,804
Balance at June 30, 2021	₩ 21,886,559	2,479,010	8,142,327	7,251,031	39,758,927

See accompanying notes to the interim separate financial statements.

Korea Development Bank

Interim Separate Statements of Cash Flows

Six-month periods ended June 30, 2021 and 2020 (Unaudited)

(In millions of won)	Notes	2021	2020
Cash flows from operating activities			
Profit for the period		₩ 2,377,608	369,343
Adjustments for:			
Income tax expense	37	613,988	104,450
Interest income	25	(1,993,256)	(2,353,110)
Interest expense	25	1,206,346	1,771,847
Dividend income	27	(642,599)	(400,605)
Gain on valuation of securities measured at FVTPL	28	(1,514)	(31,895)
Gain on disposal of securities measured at FVTPL		(3,736)	(12,745)
Loss (gain) on financial liabilities measured at FVTPL	29	(106,104)	28,499
Loss (gain) on securities measured at FVOCI	30	9,890	(52,013)
Impairment loss on securities measured at amortized cost	7	89	2
Gain on loans measured at FVTPL	33	(1,933,124)	(55,338)
Loss (gain) on valuation of derivatives		587,596	(638,510)
Net loss (gain) on fair value hedged items	31	(201,419)	492,044
Gain on foreign exchange translations	32	(119,440)	(214,547)
Gain on disposal of investments in subsidiaries and associates	33	(77,546)	(10,623)
Impairment loss (reversal of impairment loss) on investments in subsidiaries and associates		(126,248)	165,865
Provision for loan loss allowance	34	928,606	338,691
Increase of provision for other assets	34	5,077	1,681
Reversal of provision for payment guarantees	22	(47,063)	(167,940)
Reversal of provision for unused commitments	22	(22,477)	(8,568)
Increase (reversal) of financial guarantee provision	22	(28,054)	40,833
Increase of provision for possible losses from lawsuits	22	1,122	—
Reversal of provision for restoration	22	(1,211)	(269)
Defined benefit costs	21	19,974	19,238
Depreciation of property and equipment	35	36,874	33,971
Impairment loss (reversal of impairment loss) on assets held for sale	36	(499,976)	46,775
Gain on disposal of property and equipment	36	(3,220)	(604)
Gain on disposal of assets held for sale	36	(3,610)	—
Depreciation of investment property	36	1,246	604
Amortization of intangible assets	35	26,623	27,212
Loss on redemption of debentures		—	3
		(2,373,166)	(875,052)
Changes in operating assets and liabilities:			
Due from banks		(451,496)	(2,756,511)
Securities measured at FVTPL		(903,120)	378,702
Loans measured at FVTPL		8,350	108,695
Loans measured at amortized cost		(6,630,749)	(18,015,223)
Derivative financial instruments		(88,601)	(10,837)
Other assets		(4,811,520)	(3,282,400)
Financial liabilities measured at FVTPL		290,878	—
Deposits		2,992,486	15,490,684
Defined benefit liabilities		(46)	(109)
Other liabilities		4,037,287	3,202,650
		(5,556,531)	(4,884,349)
Income taxes refund (paid)		190,594	(177,446)
Interest received		1,988,788	2,378,040
Interest paid		(1,356,846)	(1,738,176)
Dividends received		646,459	399,389
Net cash used in operating activities		₩(4,083,094)	(4,528,251)

(Continued)

Korea Development Bank

Interim Separate Statements of Cash Flows, Continued

Six-month periods ended June 30, 2021 and 2020 (Unaudited)

(In millions of won)	Notes	2021	2020
Cash flows from investing activities			
Net decrease (increase) of securities measured at FVTPL		₩ (1,044,527)	(1,218,560)
Disposal of securities measured at FVOCI		20,308,243	19,139,143
Acquisition of securities measured at FVOCI	6	(19,575,204)	(30,145,312)
Redemption of securities measured at amortized cost	7	170,000	1,340,002
Acquisition of securities measured at amortized cost	7	(1,804,677)	(657,702)
Disposal of property and equipment		9,518	5,192
Acquisition of property and equipment	12	(16,611)	(13,289)
Acquisition of intangible assets	14	(5,945)	(2,199)
Disposal of investments in subsidiaries and associates		395,129	317,211
Acquisition of investments in subsidiaries and associates		(305,758)	(295,661)
Disposal of assets held for sale		9,200	—
Net cash used in investing activities		(1,860,632)	(11,531,175)
Cash flows from financing activities			
Increase of financial liabilities measured at FVTPL		50,000	120,000
Decrease of financial liabilities measured at FVTPL		(36,452)	(731,288)
Proceeds from borrowings		20,352,814	26,812,220
Repayment of borrowings		(18,280,199)	(25,137,667)
Proceeds from issuance of debentures		62,262,832	67,721,628
Repayment of debentures		(57,069,434)	(50,012,932)
Decrease in lease liabilities		(11,492)	(12,308)
Dividends		(209,638)	(111,978)
Paid in capital increase		1,115,442	448,334
Net cash provided by financing activities		8,173,873	19,096,009
Effects from changes in foreign currency exchange rate for cash and cash equivalents held		100,705	338,998
Net increase in cash and cash equivalents		2,330,852	3,375,581
Cash and cash equivalents at beginning of the period		5,729,194	5,252,825
Cash and cash equivalents at end of the period	43	₩ 8,060,046	8,628,406

See accompanying notes to the interim separate financial statements.

Korea Development Bank

Notes to the Interim Separate Financial Statements

June 30, 2021 and 2020 (Unaudited), and December 31, 2020

1. Reporting Entity

Korea Development Bank (the "Bank") was established on April 1, 1954, in accordance with *The Korea Development Bank Act* to finance and manage major industrial projects.

The Bank is engaged in the banking industry under *The Korea Development Bank Act* and other applicable statutes, and in the fiduciary in accordance with *the Financial Investment Services and Capital Markets Act*.

Korea Finance Corporation (KoFC), the former ultimate parent company, and KDB Financial Group Inc. (KDBFG), the former immediate parent company, were established by spin-offs of divisions of the Bank as of October 28, 2009. KoFC and KDBFG were merged into the Bank, effective as of December 31, 2014. Issued capital is ₩21,886,559 million with 4,377,311,768 shares of issued and outstanding as of June 30, 2021 and 100% of the Bank's shares are owned by the government of the Republic of Korea.

The Bank's head office is located in 14, Eunhaeng-ro (Yeouido-dong), Yeongdeungpo-gu, Seoul and its service network as of June 30, 2021 is as follows:

	Domestic		Overseas			
	Head Office	Branches	Branches	Subsidiaries	Representative offices	Total
KDB	1	61	10	7	8	87

2. Basis of Preparation

(1) Application of accounting standards

These interim financial statements have been prepared in accordance with the Korean International Financial Reporting Standards ("K-IFRS") 1034 *Interim Financial Reporting* and provide less information as compared with its annual financial statements. The interim financial statements have been prepared in accordance with K-IFRS effective as of June 30, 2021 and the significant accounting policies applied in the preparation of these interim financial statements have been consistently applied to all periods presented unless otherwise specified.

(2) Changes and disclosures of accounting policies

(i) New and amended standards adopted

The Bank newly applied the following amended and enacted standards for the annual period beginning on January 1, 2021. The nature and the impact of each new standard or amendment are described below:

Amendments to K-IFRS 1109 'Financial Instruments', K-IFRS 1039 'Financial Instruments: Recognition and Measurement', K-IFRS 1107 'Financial Instruments: Disclosure', K-IFRS 1104 'Insurance Contracts' and K-IFRS 1116 'Lease' – Interest Rate Benchmark Reform

In relation to interest rate benchmark reform, the amendments provide a practical expedient allowing entities to change the effective interest rate instead of changing the carrying amount and apply hedge accounting without discontinuance although the interest rate benchmark is replaced in hedging relationship. The amendment does not have a significant impact on the separate financial statements.

2. Basis of Preparation, Continued

(ii) New standards and interpretations issued but not effective

The following new standards, interpretations and amendments to existing standards have been issued but not effective for annual periods beginning after January 1, 2021, and the Bank has not early adopted them. The nature and the impact of each new standard, amendment and enactments are described below:

Amendments to K-IFRS 1103 'Business Combination' – Reference to the Conceptual Framework

The amendments update a reference of definition of assets and liabilities to qualify for recognition in revised Conceptual Framework for Financial Reporting. However, the amendments add an exception for the recognition of liabilities and contingent liabilities within the scope of K-IFRS 1037 'Provisions, Contingent Liabilities and Contingent Assets', and K-IFRS 2121 'Levies'. The amendments also confirm that contingent assets should not be recognized at the acquisition date. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

Amendments to K-IFRS 1016 'Property, Plant and Equipment' – Proceeds before intended use

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize and disclose the proceeds from selling such items, and the costs of producing those items, as profit or loss. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

Amendments to K-IFRS 1037 'Provisions, Contingent Liabilities and Contingent Assets' – Onerous Contracts: Cost of Fulfilling a Contract

The amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts when assessing whether the contract is onerous. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

Amendments to K-IFRS 1001 'Presentation of Financial Statements' – Classification of Liabilities as Current or Non-current

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the management's expectations thereof. Also, the settlement of liability includes the transfer of the entity's own equity instruments; however, it would be excluded if an option to settle the liability by the transfer of the entity's own equity instruments is recognized separately from the liability as an equity component of a compound financial instrument. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

2. Basis of Preparation, Continued

Amendments to K- IFRS 1116 'Lease' – Covid-19-Related Rent Concessions etc. beyond June 30, 2021

The application of the practical expedient, a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification, is extended to lease payments originally due on or before 30 June 2022. A lessee shall apply the practical expedient consistently to eligible contracts with similar characteristics and in similar circumstances. The amendments should be applied for annual periods beginning on or after April 1, 2021, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

Annual improvements to K-IFRS 2018-2020

Annual improvements of K-IFRS 2018-2020 Cycle should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

- K-IFRS 1109 'Financial Instruments' – Fees related to the 10% test for derecognition of financial liabilities

  The amendment clarifies that in applying the '10 per cent' test to assess whether to derecognise 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.
- K-IFRS 1101 'First time Adoption of Korean International Financial Reporting Standards' – Subsidiaries that are first-time adopters
- K-IFRS 1116 'Leases' – Lease incentives
- K-IFRS 1041 'Agriculture' – Measuring fair value

(3) Basis of measurement

The financial statements have been prepared on the historical cost basis except for the following material items in the statement of financial position:

- Derivative financial instruments measured at fair value
- Financial instruments measured at fair value through profit or loss
- Financial instruments measured at fair value through other comprehensive income
- Fair value hedged financial instruments with changes in fair value, due to hedged risks, recognized in profit or loss
- Liabilities for defined benefit plans, which are recognized as net of the total present value of defined benefit obligations less the fair value of plan assets.

(4) Functional and presentation currency

These financial statements are presented in Korean won ("₩"), which is the Bank's functional currency and the currency of the primary economic environment in which the Bank operates.

2. Basis of Preparation, Continued

(5) Use of estimates and judgments

The preparation of the financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Management's estimates of outcomes may differ from actual outcomes if management's estimates and assumptions based on management's best judgment at the reporting date are different from the actual environment.

Estimates and assumptions are continually evaluated and any change in an accounting estimate is recognized prospectively by including it in profit or loss in the period of the change, if the change affects that period only.

The following are the key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

(i) Fair value of financial instruments

Financial instruments measured at fair value through profit or loss and other comprehensive income, and derivative instruments are recognized and measured at fair value. If the market for a financial instrument is not active, fair value is determined either by using a valuation technique or independent third-party valuation service. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, referencing to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models.

Financial instruments, which are not actively traded in the market and those with less transparent market prices, will have less objective fair values and require broad judgment on liquidity, concentration, uncertainty in market factors and assumptions in price determination and other risks.

Diverse valuation techniques are used to determine the fair value of financial instruments, from generally accepted market valuation models to internally developed valuation models that incorporate various types of assumptions and variables.

(ii) Credit losses allowance

The Bank tests impairment and recognizes loss allowances on financial assets classified at amortized cost, debt instruments measured at fair value through other comprehensive income and recognizes provisions for payment guarantee, financial guarantee and unused commitments. Accuracy of allowances and provisions for credit losses is dependent upon estimation of expected cash flows of the borrower for individually assessed allowances of loans, and upon assumptions and methodology used for collectively assessed allowances for groups of loans, guarantees and unused loan commitments.

The pandemic of COVID-19 in 2021 has a negative impact on the global economy despite of the Korean government's financial and economic stabilization packages. It may have a negative impact on the financial position and financial performance of the Bank due to the increase of the expected credit losses on specific portfolios and the potential losses on financial assets. The detail of credit risk exposures by industry affected by the pandemic of COVID-19 as of June 30, 2021 is disclosed in Note 49. (2) and the exposures by industries could be changed according to economic fluctuations.

2. Basis of Preparation, Continued

Taking these circumstances into account comprehensively, the Bank recalculated the forward-looking information used to estimate the expected credit loss in accordance with K-IFRS 1109 'Financial Instruments' as of June 30, 2021. During the six-month period since the end of the previous year, there have been changes in the forward-looking information that affects expected credit losses, and it is predicted that major economic factors such as the 2021 unemployment rate and economic growth rate will deteriorate due to the impact of COVID-19. To reflect these changes, the Bank recalculated the forward-looking information by means of increasing the probability of recession used in generating future economic scenarios and will continue to monitor the forward-looking information on a quarterly basis.

(iii) Deferred taxes

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date. Deferred income tax assets are recognised to the extent that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Actual income taxes in the future may not be identical to the recognised deferred tax assets and liabilities.

(iv) Defined benefit liabilities

The Bank operates a defined benefit plan. Defined benefit liability is calculated by annual actuarial valuations as of the reporting date. To perform the actuarial valuations, assumptions for discount rates, future salary increases and others are required to be estimated. Defined benefit plans contain significant uncertainties in estimations due to its long-term nature.

3. Significant Accounting Policies

The significant accounting policies applied by the Bank in preparation of its separate financial statements are included below. The accounting policies set out below have been applied consistently to all periods presented in these separate financial statements.

(1) Investments in subsidiaries and associates

The accompanying financial statements are separate financial statements in accordance with K-IFRS 1027 *'Separate Financial Statements'* and investments in subsidiaries and associates are accounted for at cost, not by performance and net asset reported by the investee.

Dividends received from subsidiaries and associates are recognised as income as of the time the right to receive the dividends is established.

(2) Business combination of entities under common control

The assets and liabilities acquired under business combinations under common control are recognised at the carrying amounts recognised previously in the consolidated financial statements of the ultimate parent. The difference between consideration transferred and carrying amounts of net assets acquired is recognised as part of share premium.

(3) Operating segments

The Bank makes decisions regarding allocation of resources to segments and categorizes segments, based on internal reports reviewed periodically by the chief operating decision maker, to assess performance. Information

3. Significant Accounting Policies, Continued

on segments reported to the chief operating decision maker includes items directly attributable to segments as well as those that can be allocated on a reasonable basis. Unallocated items mainly comprise corporate assets (such as the Bank Headquarters), head office expenses, and income tax assets and liabilities. The Bank recognises the CEO as the chief operating decision maker.

(4) Foreign exchange

(i) Foreign currency transactions

Transactions in foreign currencies are translated to the functional currency of the Bank, at exchange rates of the dates of transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to the functional currency at the exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between amortized cost in the functional currency at the beginning of the period, adjusted for effective interest and payments during the period, and the amortized cost in foreign currency translated at the exchange rate at the end of the reporting period. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are translated to the functional currency at the exchange rate at the date that the fair value was determined.

Foreign currency differences arising on transactions and translations of monetary items are recognised in profit or loss, except for differences arising on the translation of a financial instruments designated as hedges of the net investment in foreign operations, or cash flow hedge, which are recognised in other comprehensive income.

When a gain or loss on a non-monetary item is recognised in other comprehensive income, any exchange component of that gain or loss is recognised in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognised in profit or loss, any exchange component of that gain or loss shall be recognised in profit or loss.

(ii) Foreign operations

If the presentation currency of the Bank is different from a foreign operation's functional currency, the financial statements of the foreign operation are translated into the presentation currency using the following methods:

Unless the functional currency of foreign operations is in a state of hyperinflation, assets and liabilities of foreign operations are translated at the closing exchange rate at the end of the reporting period. Revenues and expenses on the statement of comprehensive income are translated at the exchange rates of the date of transaction. Foreign currency differences that arise from translation are recognized as other comprehensive income, and the disposal of a foreign operation is re-categorized as profit or loss as of the moment of the disposal profit or loss is recognized.

Any goodwill arising on the acquisition of a foreign operation, and any adjustments in fair value to the carrying amounts of assets and liabilities due to such acquisition, are treated as assets and liabilities of the foreign operation. Therefore, such are expressed in the functional currency of the foreign operations and, alongside other assets and liabilities of the foreign operation, translated at the closing exchange rate.

In the case of the disposal of a foreign operation, cumulative amounts of exchange difference regarding the foreign operation, recognized separately from other comprehensive income, are re-categorized from assets to profit or loss as of the disposal profit or loss is recognized.

3. Significant Accounting Policies, Continued

(iii) Foreign exchange of net investment in foreign operations

Monetary items receivable from or payable to a foreign operation, with none or little possibility of being settled in the foreseeable future, are considered a part of the net investment in the foreign operation. Therefore, the exchange difference is recognised as comprehensive income or loss in the financial statement and re-categorized to profit or loss as of the disposal of the related net investment.

(5) Recognition and measurement of financial instruments

(i) Initial recognition

The Bank recognizes a financial asset or a financial liability in its separate statement of financial position when the Bank becomes a party to the contractual provisions of the instrument. A regular way purchase or sale of financial assets is recognized and derecognized using trade date accounting. The Bank classifies financial assets as financial assets at fair value through profit or loss, financial assets at fair value through other comprehensive income, or financial assets at amortized cost on the basis of the Bank's business model for managing the financial assets and the contractual cash flow characteristics of the financial assets. The Bank classifies financial liabilities as financial liabilities at fair value through profit or loss, or financial liabilities at amortized cost.

At initial recognition, a financial asset or financial liability is measured at its fair value plus or minus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

(ii) Subsequent measurement

After initial recognition, financial instruments are measured at amortized cost or fair value based on classification at initial recognition.

Amortized cost

The amortized cost is the amount at which the financial asset or financial liability is measured at initial recognition minus the principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount and, for financial assets, adjusted for any loss allowance.

Fair value

Fair values, which the Bank primarily uses for the measurement of financial instruments, are the published price quotations based on market prices or dealer price quotations of financial instruments traded in an active market where available. These are the best evidence of fair value. A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer, broker, an entity in the same industry, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis.

If the market for a financial instrument is not active, fair value is determined either by using a valuation technique or independent third-party valuation service. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, referencing to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models.

3. Significant Accounting Policies, Continued

The Bank uses valuation models that are commonly used by market participants and customized for the Bank to determine fair values of common over-the-counter (OTC) derivatives such as options, interest rate swaps and currency swaps which are based on the inputs observable in markets. For more complex instruments, the Bank uses internally developed models, which are usually based on valuation methods and techniques generally used within the industry, or a value measured by an independent external valuation institution as the fair values if all or some of the inputs to the valuation models are not market observable and therefore it is necessary to estimate fair value based on certain assumptions.

If the valuation technique does not reflect all factors which market participants would consider in setting a price, the fair value is adjusted to reflect those factors. Those factors include counterparty credit risk, bid-ask spread, liquidity risk and others.

The chosen valuation technique makes maximum use of market inputs and relies as little as possible on entity-specific inputs. It incorporates all factors that market participants would consider in setting a price and is consistent with economic methodologies applied for pricing financial instruments. Periodically, the Bank calibrates the valuation technique and tests its validity using prices of observable current market transactions of the same instrument or based on other relevant observable market data.

(iii) Derecognition

Derecognition is the removal of a previously recognized financial asset or financial liability from the statement of financial position. The Bank derecognizes a financial asset or a financial liability when, and only when:

Derecognition of financial assets

Financial assets are derecognized when the contractual rights to the cash flows from the financial assets expire or the financial assets have been transferred and substantially all the risks and rewards of ownership of the financial assets are also transferred, or all the risks and rewards of ownership of the financial assets are neither substantially transferred nor retained and the Bank has not retained control. If the Bank neither transfers nor disposes of substantially all the risks and rewards of ownership of the financial assets, the Bank continues to recognize the financial asset to the extent of its continuing involvement in the financial asset.

If the Bank transfers the contractual rights to receive the cash flows of the financial asset, but retains substantially all the risks and rewards of ownership of the financial asset, the Bank continues to recognize the transferred asset in its entirety and recognize a financial liability for the consideration received.

Derecognition of financial liabilities

Financial liabilities are derecognized from the statement of financial position when the obligation specified in the contract is discharged, cancelled or expires.

(iv) Offsetting

Financial assets and liabilities are offset and the net amount reported in the separate statements of financial position where there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the assets and settle the liability simultaneously.

3. Significant Accounting Policies, Continued

(6) Cash and cash equivalents

Cash and cash equivalents comprise balances with original maturities of three months or less from the date of acquisition that are subject to an insignificant risk of changes in their fair value, including cash on hand, deposits held at call with banks and other highly liquid short-term investments with original maturities of three months or less.

(7) Non-derivative financial assets

(i) Financial assets at fair value through profit or loss

Any non-derivative financial asset classified as held for trading or not classified as financial assets at fair value through other comprehensive income or financial assets measured at amortized cost is categorized under financial assets at fair value through profit or loss.

The Bank may designate certain financial assets upon initial recognition as at fair value through profit or loss when the designation eliminates or significantly reduces a measurement or recognition inconsistency (sometimes referred to as 'an accounting mismatch') that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases.

After initial recognition, a financial asset at fair value through profit or loss is measured at fair value and gains or losses arising from a change in the fair value are recognized in profit or loss. Interest income and dividend income from financial assets at fair value through profit or loss are also recognized in profit or loss.

(ii) Financial assets at fair value through other comprehensive income

The Bank classifies financial assets as financial assets at fair value through other comprehensive income if they meet the following conditions: 1) debt instruments that are a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and consistent with representing solely payments of principal and interest on the principal amount outstanding or 2) equity instruments, not held for trading with the objective of generating a profit from short-term fluctuations in price or dealer's margin, designated as financial assets at fair value through other comprehensive income. After initial recognition, a financial asset at fair value through other comprehensive income is measured at fair value. Gain and loss from changes in fair value, other than dividend income and interest income amortized using effective interest method and exchange differences arising on monetary items which are recognized directly in profit or loss, are recognized as other comprehensive income in equity.

At disposal of financial assets at fair value through other comprehensive income, cumulative gain or loss is recognized as profit or loss for the reporting period. However, cumulative gain or loss of equity instrument designated as fair value through other comprehensive income are not recycled to profit or loss at disposal.

Financial assets at fair value through other comprehensive income denominated in foreign currencies are translated at the closing rate. Exchange differences resulting from changes in amortized cost are recognized in profit or loss, and other changes are recognized as equity.

(iii) Financial assets measured at amortized cost

A financial asset, which are held within the business model whose objective is to hold assets in order to collect contractual cash flows and consistent with representing solely payments of principal and interest on the

3. Significant Accounting Policies, Continued

principal amount outstanding, are classified as a financial asset at amortized cost. Financial assets at amortized cost are subsequently measured at amortized cost using the effective interest method after initial recognition and interest income is recognized using the effective interest method.

(8) Expected credit loss of financial assets

The Bank measures expected credit loss and recognizes loss allowance at the end of the reporting period for financial assets measured at amortized cost and fair value through other comprehensive income with the exception of financial asset measured at fair value through profit or loss.

The expected credit loss ("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 of effort.

The Bank uses the following three measurement techniques in accordance with K-IFRS:

- General approach: for financial assets and off-balance-sheet unused credit line that are not applied below two approaches
- Simplified approach: for receivables, contract assets and lease receivables
- Credit-impaired approach: for purchased or originated credit-impaired financial assets

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, an entity shall measure the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. If the credit risk on that financial instrument has increased significantly since initial recognition, an entity shall measure the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses at each reporting date.

The Bank applies the simplified approach to 1) trade receivables and contract assets that do not have a significant financing component or 2) trade receivables, contract assets and lease receivables upon determining the Bank's accounting policies as the application of the simplified approach. The approach requires expected lifetime losses to be recognized from initial recognition of the financial assets. Under credit-impaired approach, the Bank shall only recognize the cumulative changes in lifetime expected credit losses since initial recognition as a loss allowance for purchased or originated credit-impaired financial assets.

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 if the instrument was newly originated or issued at the reporting date
- 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 behavioural scoring used to assess credit risk internally
- An actual or expected significant change in the operating results of the borrower
- Past due information

3. Significant Accounting Policies, Continued

(i) Forward-looking information

The Bank uses forward-looking information, when it determines whether the credit risk has increased significantly since initial recognition and measures expected credit losses.

The Bank assumes the risk component has a certain correlation with the business cycle, and calculates the expected credit loss by reflecting the forward-looking information with macroeconomic variables on the measurement inputs.

Forward looking information used in calculation of expected credit loss is derived after comprehensive consideration of a variety of factors including scenario in management planning, worst-case scenario used for stress testing, third party forecast, and others.

(ii) Measuring expected credit losses on financial assets at amortized cost

The amount of the loss on financial assets at amortized cost is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate. The Bank estimates expected future cash flows for financial assets that are individually significant (individual assessment of impairment).

For financial assets that are not individually significant, the Bank collectively estimates expected credit loss by grouping loans with homogeneous credit risk profile (collective assessment of impairment).

Individual assessment of impairment

Individual assessment of impairment losses is calculated using management's best estimate on present value of expected future cashflows. The Bank uses all the available information including operating cash flow of the borrower and net realizable value of any collateral held.

Collective assessment of impairment

Collective assessment of loss allowance involves historical loss experience along with incorporation of forward-looking information. Such process incorporates factors such as type of collateral, product and borrowers, credit rating, size of portfolio and recovery period and applies probability of default on a group of assets and loss given default by type of recovery method. Also, the expected credit loss model involves certain assumption to determine input based on loss experience and forward-looking information. These models and assumptions are periodically reviewed to reduce gap between loss estimate and actual loss experience.

The expected credit loss for financial assets measured at amortized cost is recognized as the loss allowance, and when the financial asset is determined to be irrecoverable, the carrying amount and loss allowance are decreased. If financial assets previously written off are recovered, the loss allowance is increased and the difference is recognized in the current profit or loss.

(iii) Measuring expected credit losses on financial assets at fair value through other comprehensive income

Measuring method of expected credit losses on financial assets at fair value through other comprehensive income is equal to the method of financial assets at amortized cost, except for changes in loss allowances that are

3. Significant Accounting Policies, Continued

recognized as other comprehensive income. Amounts recognized in other comprehensive income for sale or repayment of financial assets at fair value through other comprehensive income are reclassified to profit or loss.

(9) Derivative financial instruments including hedge accounting

Derivative financial instruments are initially recognised at fair value at the inception of the contract and re-estimated at fair value subsequently. The recognition of profit or loss due to changes in fair value of derivative instruments is as described below:

(i) Hedge accounting

Derivative financial instruments are accounted differently depending on whether hedge accounting is applied, and therefore, are classified into trading purpose derivatives and hedging purpose derivatives.

Upon the transaction of hedging purpose derivatives, two different types of hedge accounting are applied; a fair value hedge, and a cash flow hedge. A fair value hedge is a hedge of the exposure to changes in fair value of a recognised asset or liability or an unrecognised firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss. A cash flow hedge is a hedge of the exposure to variability in cash flows that (i) is attributable to a particular risk associated with a recognised asset or liability (such as all or some future interest payments on variable rate debt) or a highly probable forecast transaction and (ii) could affect profit or loss.

At the inception of the hedge relationship, the Bank formally documents the relationship between the hedged item and the hedging instrument, including the nature of the risk, the objective and strategy for undertaking the hedge, and the method that will be used to assess the effectiveness of the hedging relationship.

Fair value hedge

For designated and qualifying fair value hedges, the change in the fair value of a hedging derivative is recognised in profit or loss in the statement of comprehensive income. Meanwhile, the change in the fair value of the hedged item, attributable to the risk hedged, is recorded as part of the carrying value of the hedged item and is also recognised in profit or loss in the statement of comprehensive income. When the hedge no longer meets the criteria for hedge accounting, the hedge relationship is terminated. For hedged item recorded at amortized cost, the difference between the carrying value of the hedged item on termination and the face value is amortized over the remaining term of the original hedge using the EIR.

Cash flow hedge

For designated and qualifying cash flow hedges, the effective portion of gain or loss on the hedging instruments is initially recognised directly in equity. The ineffective portion of the gain or loss on the hedging instrument is recognised immediately in the statement of comprehensive income. When the hedged cash flow affects the profit or loss in statement of comprehensive income, the gain or loss on the hedging instrument is recorded in the corresponding income or expense line in profit or loss in the statement of comprehensive income.

When a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the hedged forecasted transaction is ultimately

3. Significant Accounting Policies, Continued

recognised in the statement of comprehensive income. When a forecasted transaction is no longer expected to occur, the cumulative gain and loss that was reported in equity is immediately transferred to profit or loss in the statement of comprehensive income.

Hedges of net investments in foreign operations

The Bank designates non-derivative financial instruments as hedging instruments for foreign currency risk arising from net investments in foreign operations and recognises the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge in other comprehensive income. The cumulative amounts recognised in other comprehensive income relating to both the foreign exchange differences arising on translation of the results and financial position of the foreign operation and the gain or loss on the hedging instrument that is determined to be an effective hedge of the net investment are reclassed from equity to profit or loss as a reclassification adjustment when the Bank disposes of the foreign operation.

(ii) Trading purpose derivatives

For trading purpose derivatives transaction, changes in the fair value of derivatives are recognised in net income.

(10) Day one profit or loss recognition

For financial instruments classified as level 3 on the fair value level hierarchy measured using assess variables not observable in the market, the difference between the fair value at initial recognition and the transaction price, which is equivalent to Day one profit or loss, is amortized by using the straight-line method over time.

(11) Property and equipment

The Bank's property and equipment are recognised at the carrying amount at historical costs less accumulated depreciation and accumulated impairment in value. Historical costs include the expenditures directly related to the acquisition of assets.

Subsequent costs are recognised in the carrying amount of assets or, if appropriate, as separate assets if the probabilities future economic benefits associated with the assets will flow into the Bank and the costs can be measured reliably; the carrying amount of the replaced part is derecognised. Furthermore, any other repairs or maintenances are charged to profit or loss as incurred.

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to the amount of residual value less acquisition cost over the following estimated useful lives:

Type	Useful lives (years)
Buildings	20 ~ 50
Structure	10 ~ 40
Movable property	4

3. Significant Accounting Policies, Continued

Property and equipment are impaired when the carrying amount exceeds the recoverable amount. The Bank assesses residual value and economic life of its assets at each reporting date and adjusts useful lives when necessary. Any gain or loss arising from the disposal of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is recognised in non-operating income (expense) in the statement of comprehensive income.

(12) Investment property

The Bank classifies property held for rental income or benefits from capital appreciation as investment property. Investment property is measured initially at cost, including transaction costs. Subsequent to initial recognition, the cost model is applied. Subsequent to initial recognition, an item of investment property is carried at its cost less any accumulated depreciation and any accumulated impairment loss.

Investment properties are derecognised 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 recognised in the statement of comprehensive income in the period of de-recognition. Reclassification to other account is made if there is a change in use of corresponding investment property.

Depreciation of investment property is calculated using the straight-line method over its estimated useful lives as follows:

Type	Useful lives (years)
Buildings	20 ~ 50
Structure	10 ~ 40

(13) Intangible assets

An intangible asset is recognised only when its cost can be measured reliably, and the probabilities future economic benefits from the asset will flow into the Bank are high. Separately acquired intangible assets are recognised at the acquisition cost, and subsequently, the cost less accumulated depreciation and accumulated impairment is recognised as the carrying amount.

Intangible assets with finite lives are amortized over the four-year to 30-year period of useful economic lives using the straight-line method. At the end of each reporting period, the Bank reviews intangible assets for any evidence that indicate impairment, and upon the presence of such evidence, the Bank estimates the amount recoverable and recognises the loss accordingly.

Intangible assets with indefinite useful lives are not amortized but are tested for impairment annually. Furthermore, the Bank reviews such intangible assets to determine whether it is appropriate to consider these assets to have indefinite useful lives. If in the case the Bank concludes an asset is not qualified to be classified as non-finite, prospective measures are taken to consider such an asset as finite.

(14) Leases

The Bank recognizes a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments at the commencement date of the lease. The Bank elected not to apply the requirements to the short-term leases and leases of low value assets.

3. Significant Accounting Policies, Continued

Right-of-use asset

The right-of-use asset is measured at its cost less subsequent accumulated depreciation and accumulated impairment loss with adjustments reflected arising from remeasurements of the lease liability. The cost of the right-of-use asset comprise the amount of the initial measurement of the lease liability, any initial direct costs incurred by the lessee and any lease payments made at or before the commencement date, less any lease incentive received. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis from the commencement date of the lease.

Lease liabilities

At the commencement date, the lease liability is measured at present value of the lease payments that are not paid at that date. Lease payments include fixed payments (including in-substance fixed payments), less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be payable by the lessee under residual value guarantees, the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease. The variable lease payments that do not depend on an index or a rate are recognized as an expense in the period in which the event or condition that triggers those payments occurs.

When measuring the present value, the lease payments are discounted using the interest rate implicit in the lease. If such implicit rate cannot be readily determined, the Bank uses the Bank's incremental borrowing rate. The lease liability is subsequently increased by the amount of interest expenses recognized on the lease liability and reduced by the lease payments made.

Short-term lease and lease of low-value assets

The Bank does not apply the requirements of lessee accounting to short-term leases and leases of low-value assets. The Bank recognizes the lease payments associated with these leases as expenses on a straight-line basis over the lease term.

(15) Impairment of non-financial assets

The Bank tests for any evidence of impairment in assets and reviews whether the impairment has taken place by estimating the recoverable amount, at the end of each reporting period. The recoverable amount is the higher of the fair value less cost and value in use of an asset.

Except for impairment losses in respect of goodwill which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceeds the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years.

(16) Assets held for sale

Non-current assets, or disposal groups comprising assets and liabilities, that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. To be classified as held for sale, the asset (or disposal group) must be available for immediate sale in its present condition and its sale

3. Significant Accounting Policies, Continued

must be highly probable. The assets or disposal group that are classified as assets held for sale are measured at the lower of their carrying amount and fair value less cost to sell. The Bank recognizes an impairment loss for any initial or subsequent write-down of an asset (or disposal group) to fair value less costs to sell, and a gain for any subsequent increase in fair value less costs to sell, up to the cumulative impairment loss previously recognized.

Non-current assets that are classified as held for sale or part of a disposal group classified as held for sale are not depreciated (or amortized).

(17) Non-derivative financial liabilities

The Bank classifies non-derivative financial liabilities into financial liabilities at fair value through profit or loss or other financial liabilities, in accordance with the substance of the contractual arrangement and the definitions of financial liability. The Bank recognizes these financial liabilities in the statement of financial position when the Bank becomes a party to the contractual provisions of the financial liability.

(i) Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated at FVTPL upon initial recognition. Financial liabilities and derivatives are classified as financial instruments held for trading if they are acquired for repurchasing soon. Financial liabilities are classified as financial liabilities at FVTPL upon initial recognition, if the profit or loss from the liabilities indicates to be more purpose-appropriate to be recognised as profit or loss. Financial liabilities at FVTPL are designated at fair value in subsequent measurements, and any related un-realized profit or loss is recognised as profit or loss. In addition, for the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability, the Bank present this change in other comprehensive income, and does not recycle this other comprehensive income to profit or loss, subsequently.

(ii) Financial liabilities measured at amortized cost

Financial liabilities measured at amortized cost are recognised at fair value less cost less transaction cost upon initial recognition, and subsequently at amortized costs. The difference between the proceeds (net of transaction cost) and the redemption value is recognised in the statement of comprehensive income over the periods of the liabilities using the effective interest method.

Fees paid on the establishment of a loan facility are recognised as transaction costs of the loan, if the probability that some or all the facility will be drawn down is high. If, however, there is not enough evidence to conclude a draw-down of some or all the facility will occur, the fee is capitalized as a prepayment for liquidity services and amortized over the period of the facility to which it relates.

(18) Employee benefits

(i) Short-term employee benefits

Short-term employee benefits are employee benefits that are due to be settled wholly before 12 months after the end of the period in which the employees render the related service. When an employee has rendered service to the Bank during an accounting period, the Bank recognises the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service.

3. Significant Accounting Policies, Continued

(ii) Retirement benefits: defined contribution plans

A defined contribution plan is a pension plan under which the Bank pays fixed contributions into a separate fund. The Bank is no longer responsible for any foreseeable future liability after a certain amount or percentage of money is set aside for defined contribution plans. If the pension plan allows for early retirement, payments are recognised as employee benefits. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, the Bank recognises that excess as an asset to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

(iii) Retirement benefits: defined benefit plans

The Bank classifies all the pensions as defined benefit plans except defined contribution plans. The Bank's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets. The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and have terms to maturity like the terms of the related pension liability.

Remeasurements of the net defined benefit liabilities (assets), which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognised immediately in other comprehensive income.

(19) Provisions

Provisions are recognized when the Bank has a present legal or constructive obligation because 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.

(20) Financial guarantees

Financial guarantee contracts are contracts that require the issuer (the Bank) to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due, in accordance with the original or changed terms of a debt instrument. Financial guarantees are initially recognized in the financial statements at fair value on the date the guarantee was given. Subsequent to initial recognition, the Bank's liabilities under such guarantees are measured at the higher of:

- The amount determined in accordance with K-IFRS 1109 *'Financial Instruments'* and
- The initial amount recognized, less, when appropriate, cumulative amortization recognized in accordance with K-IFRS 1115 'Revenue from Contracts with Customers'.

(21) Securities under resale or repurchase agreements

Securities purchased under agreements to resell are recorded as other loans and receivables and the related interest from these securities is recorded as interest income; securities sold under agreements to repurchase are recorded as other borrowings, and the related interest from these securities is recorded as interest expense.

3. Significant Accounting Policies, Continued

(22) Interest income and expense

Interest income and expense are recognized in profit or loss using the effective interest method. The effective interest method measures the amortized costs of financial instruments and allocates the interest income or expense during the related period.

Upon the calculation of the effective interest rate, the Bank estimates future cash flows by taking into consideration all contractual terms of the financial instrument, but not future credit loss. The calculation also reflects any fees or points paid or received, transaction costs and any related premiums or discounts. In the case that the cash flow and expected duration of a financial instrument cannot be estimated reliably, the effective interest rate is calculated by the contractual cash flow during the contract period.

Once an impairment loss has been recognized on a financial asset or a group of similar assets, subsequent interest income is recognized on the interest rate that was used to discount future cash flow for measuring the impairment loss.

(23) Fees and commission income

Fees and commission income and expense are classified as follows according to related regulations:

(i) Fees and commission from financial instruments

Fees and commission income and expense that are integral to the effective interest rate on a financial asset or liability are included in the measurement of the effective interest rate. It includes those related to evaluation of the borrowers' financial status, guarantee, collateral, other agreements and related evaluation as well as business transaction, rewards for activities, such as document preparation and recording and setup fees incurred during issuance of financial liabilities. However, when financial instruments are classified as financial instruments at fair value through profit or loss, fees and commission are recognized as revenue upon initial recognition.

(ii) Fees and commission from services

Fees and commission income charged in exchange for services to be performed during a certain period of time such as asset management fees, consignment fees and assurance service fees are recognized as the related services are performed. When a loan commitment is not expected to result in the draw-down of a loan and K-IFRS 1039 *'Financial Instrument: Recognition and Measurement'* is not applied for the commitment, the related loan commitment fees are recognized as revenue proportionally to time over the commitment period.

(iii) Fees and commission from significant transaction

Fees and commission from significant transactions, such as trading stocks and other securities, negotiation and mediation activities for third parties, for instance business transfer and takeover, are recognized when transactions are completed.

(24) Dividend income

Dividend income is recognized upon the establishment of the Bank's right to receive the payment.

(25) Income tax expense

Income tax expense comprises current and deferred income tax. Current income tax and deferred income tax are recognized in profit or loss except to the extent that the tax arises from a transaction or event, which is recognized in other comprehensive income or directly in equity, or a business combination.

3. Significant Accounting Policies, Continued

The Bank recognizes deferred income tax liabilities for all taxable temporary differences associated with investments in subsidiaries, associates, except to the extent that the Bank can control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. The Bank recognizes deferred income tax assets for all deductible temporary differences arising from investments in associates, to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the reporting period when the assets are realized, or the liabilities settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred income tax assets and liabilities reflects the income tax effects that would follow from the manner in which the Bank expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

The carrying amount of a deferred income tax asset is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred income tax asset to be utilized.

Deferred income tax assets and liabilities are off-set only if the Bank has a legally enforceable right to off-set the related current income tax assets and liabilities, and the assets and liabilities relate to income tax levied by the same tax authority and are intended to be settled on a net basis.

(26) Accounting for trust accounts

The Bank, for financial reporting, differentiates trust assets from identifiable assets according to the *Financial Investment Services and Capital Markets Act*. Furthermore, the Bank receives trust fees from the application, management and disposal of trust assets, and appropriates such amounts for fees from trust accounts.

Meanwhile, in the case the fee from an unspecified principal or interests guaranteed money in trust does not meet the principal or interest amount, even after appropriating deficit with trust fees and special reserve, the Bank fills in the remaining deficit in the trust account and appropriates such amounts for losses on trust accounts.

(27) Regulatory reserve for credit losses

When the total sum of allowance for possible credit losses is lower than the amount prescribed in Article 29(1) of the *Regulations on Supervision of Banking Business*, the Bank records the difference as regulatory reserve for credit losses at the end of each reporting period.

In the case that the existing regulatory reserve for credit losses exceeds the amount needed to be set aside at the reporting date, the surplus may be reversed. Furthermore, in the case that undisposed deficit exists, regulatory reserve for credit losses is saved from the time the undisposed deficit is disposed.

(28) Earnings per share

The Bank represents its diluted and basic earnings per common share in the separate statement of comprehensive income. Basic earnings per share (EPS) is calculated by dividing net profit attributable to

3. Significant Accounting Policies, Continued

shareholders of the Bank by the weighted average number of common shares outstanding during the reporting period. Diluted earnings per share is calculated by adjusting net profit attributable to common shareholders of the Bank, considering dilution effects from all potential common shares, and the weighted average number of common shares outstanding.

(29) Corrections of errors

Prior period errors shall be corrected by retrospective restatement in the first set of financial statements authorised for issue after their discovery except to the extent that it is impracticable to determine either the period-specific effects or the cumulative effect of the error.

4. Cash and Due from Banks

(1) Cash and due from banks as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Cash	₩ 53,847	52,240
Due from banks in Korean won:		
Due from Bank of Korea	4,158,855	4,140,277
Other due from banks in Korean won	580,636	347,074
	4,739,491	4,487,351
Due from banks in foreign currencies / off-shores	6,475,917	5,989,387
	₩ 11,269,255	10,528,978

(2) Restricted due from banks as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Reserve deposit	₩ 3,644,433	3,052,883
Deposit of monetary stabilization account	700,000	1,300,000
Others	405,986	216,549
	₩ 4,750,419	4,569,432

5. Securities Measured at FVTPL

(1) Details of securities measured at fair value through profit or loss as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		
	Face value	Acquisition cost	Fair value (Carrying amounts)
Securities denominated in Korean won:			
Stocks	₩ —	865,077	739,169
Equity investments	—	285,098	312,240
Beneficiary certificates	—	6,384,689	6,574,017
Government and public bonds	1,618,000	1,583,369	1,574,273
Financial bonds	335,000	336,164	335,502
Others	40,000	40,193	40,040
	1,993,000	9,494,590	9,575,241
Securities denominated in foreign currencies/off-shores:			
Equity investments	—	26,291	51,284
Beneficiary certificates	—	674,879	642,882
Debt securities	3,390	3,313	3,365
	3,390	704,483	697,531
	₩ 1,996,390	10,199,073	10,272,772

	December 31, 2020		
	Face value	Acquisition cost	Fair value (Carrying amounts)
Securities denominated in Korean won:			
Stocks	₩ —	745,860	622,918
Equity investments	—	233,467	291,984
Beneficiary certificates	—	5,726,787	5,841,059
Government and public bonds	1,024,950	1,031,165	1,023,738
	1,024,950	7,737,279	7,779,699
Securities denominated in foreign currencies/off-shores:			
Equity investments	—	21,177	19,800
Beneficiary certificates	—	555,149	507,518
Debt securities	13,600	14,532	13,614
	13,600	590,858	540,932
	₩ 1,038,550	8,328,137	8,320,631

5. Securities Measured at FVTPL, Continued

(2) Securities measured at fair value through profit or loss with disposal restrictions as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		
Company	Number of shares	Carrying amount	Restricted period
National Happiness Fund Co., Ltd.	34,066	₩ 47,647	Undecided
Shinhan Metal Co., Ltd.	7,692	—	Until December 31, 2021
	41,758	₩ 47,647	

	December 31, 2020		
Company	Number of shares	Carrying amount	Restricted period
National Happiness Fund Co., Ltd.	34,066	₩ 66,934	Undecided
Shinhan Metal Co., Ltd.	7,692	—	Until December 31, 2021
	41,758	₩ 66,934	

6. Securities Measured at FVOCI

(1) Details of securities measured at FVOCI as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		
	Face value	Acquisition cost	Fair value (Carrying amounts)
Securities denominated in Korean won:			
Stocks and equity investments	₩ —	10,159,230	10,479,901
Government and public bonds	970,000	977,750	971,397
Financial bonds	2,670,000	2,675,915	2,672,381
Corporate bonds	8,292,641	8,294,165	8,250,448
Others	2,141,115	2,137,849	13,013,856
	14,073,756	24,244,909	35,387,983
Securities denominated in foreign currencies/off-shores:			
Equity securities	—	1,657	998
Debt securities	5,634,704	5,787,500	5,762,364
	5,634,704	5,789,157	5,763,362
Loaned securities:			
Loaned securities	870,000	864,198	859,161
	₩ 20,578,460	30,898,264	42,010,506

6. Securities Measured at FVOCI, Continued

	December 31, 2020		
	Face value	Acquisition cost	Fair value (Carrying amounts)
Securities denominated in Korean won:			
Stocks and equity investments	₩ —	9,964,039	10,060,520
Government and public bonds	1,900,000	1,923,926	1,918,765
Financial bonds	4,230,000	4,236,741	4,237,990
Corporate bonds	7,570,541	7,570,748	7,558,145
Others	2,141,115	2,137,849	4,803,611
	15,841,656	25,833,303	28,579,031
Securities denominated in foreign currencies/off-shores:			
Equity securities	—	1,640	984
Debt securities	5,104,050	5,206,146	5,271,504
	5,104,050	5,207,786	5,272,488
Loaned securities:			
Debt securities	290,000	289,641	289,806
	₩ 21,235,706	31,330,730	34,141,325

Equity instruments that are acquired due to debt-to-equity swap, investment in kind and investment in ventures and small and medium-sized enterprises are designated as measured at FVOCI. The realized pre-tax income and loss on disposal of equity securities for the six-month periods ended June 30, 2021 and 2020 and ₩20,729 million of gain and ₩89,603 million of loss, respectively, which are directly recognized in retained earnings.

(2) Changes in securities measured at FVOCI for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Beginning balance	₩ 34,141,325	24,249,160
Acquisition	19,575,204	30,145,312
Disposal	(20,294,995)	(19,164,238)
Change due to amortization	(22,899)	(24,236)
Change in fair value	8,333,060	205,116
Foreign exchange differences	197,447	203,509
Others (*)	81,364	13,513
Ending balance	₩ 42,010,506	35,628,136

(*) For the six-month period ended June 30, 2021, others represent the increase in securities measured at FVOCI including shares of DAEHAN SHIPBUILDING CO., LTD., HEUNG-A SHIPPING CO.,LTD. and others acquired in accordance with the workout plan decided by the Council of Financial Creditors and shares of Woongjin Energy Co., Ltd acquired in accordance with the rehabilitation plan under the Debtor Rehabilitation and Bankruptcy Act. For the six-month period ended June 30, 2020, others represent the increase in securities measured at FVOCI including shares of SOLUM CO., LTD. acquired through exercise of conversion rights of the convertible bonds and shares of Barun Electronics Co., Ltd., Korea Heat

6. Securities Measured at FVOCI, Continued

Exchanger Co.,Ltd., SUNGCHANG ENGINEERING & CONSTRUCTION CO., LTD., NEOV INC. and others acquired in accordance with the rehabilitation plan under the Debtor Rehabilitation and Bankruptcy Act.

(3) Securities measured at FVOCI with disposal restrictions in securities measured at FVOCI as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		
Company (*1)	Number of shares	Carrying amount	Restricted period
UAMCO., Ltd.	113,050	₩160,818	Undecided
High Gain Antenna Co., Ltd.	18,138	265	Undecided
Engine Tech Co., Ltd.	500,000	1	Undecided
CREA IN Co., Ltd.	14,383	107	Until December 21, 2021
Heung-A Shipping Co., Ltd.	3,019,800	3	Until July 11, 2022
Kumho Tire Co., Inc.	21,339,320	171,141	Until July 6, 2023(*2)
POSCO Plantec Co., Ltd.	1,838,744	2,214	Until December 31, 2023 or listing date
	26,843,435	₩ 334,549	

(*1) For the six-month period ended June 30, 2021, shares of Taihan Electric Wire Co., Ltd. held as of December 31, 2020 have been sold.

(*2) From July 6, 2021, 50% of the shares may be sold every year.

	December 31, 2020		
Company	Number of shares	Carrying amount	Restricted period
UAMCO., Ltd.	113,050	₩ 150,244	Undecided
High Gain Antenna Co., Ltd.	18,138	—	Undecided
Engine Tech Co., Ltd.	500,000	1	Undecided
Taihan Electric Wire Co., Ltd.	15,892,055	21,772	Undecided
POSCO Plantec Co., Ltd.	1,838,744	2,468	Until June 9, 2021
CREA IN Co., Ltd.	14,383	140	Until December 21, 2021
Kumho Tire Co., Inc.	21,339,320	80,769	Until July 6, 2023(*)
	39,715,690	₩255,394	

(*) From July 6, 2021, 50% of the shares may be sold every year.

6. Securities Measured at FVOCI, Continued

(4) Changes in the loss allowance in relation to securities measured at FVOCI for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021			
		Lifetime expected credit loss		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 9,671	1,209	70,398	81,278
Transfer to 12-month expected credit loss	76	(76)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired	(1,895)	1,895	—	—
Transfer to credit-impaired debt	—	—	—	—
Provision for loss allowance	1,292	1,290	345	2,927
Disposal	(542)	—	—	(542)
Foreign currency translation and others	1,585	(1,238)	196	543
Ending balance	₩ 10,187	3,080	70,939	84,206

	2020			
		Lifetime expected credit loss		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 2,354	116	71,336	73,806
Transfer to 12-month expected credit loss	—	—	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired	(189)	189	—	—
Transfer to credit-impaired debt	—	—	—	—
Provision for loss allowance	7,139	248	482	7,869
Disposal	(63)	—	—	(63)
Foreign currency translation and others	462	(153)	61	370
Ending balance	₩ 9,703	400	71,879	81,982

7. Securities Measured at Amortized Cost

(1) Securities measured at amortized cost as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	
	Amortized cost	Fair value
Securities denominated in Korean won:		
Government and public bonds	₩ 1,094,179	1,094,179
Financial bonds	1,040,319	1,040,284
Corporate bonds	282,734	282,671
	2,417,232	2,417,134
Less: loss allowance	(98)	—
	₩ 2,417,134	2,417,134

	December 31, 2020	
	Amortized cost	Fair value
Securities denominated in Korean won:		
Government and public bonds	₩ 665,183	665,183
Financial bonds	120,090	120,081
	785,273	785,264
Less: loss allowance	(9)	—
	₩ 785,264	785,264

(2) Changes in securities measured at amortized cost for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Beginning balance	₩ 785,264	1,501,947
Acquisition	1,804,677	657,702
Redemption	(170,000)	(1,340,002)
Change due to amortization	(2,718)	(2,247)
Impairment loss	(89)	(2)
Ending balance	₩ 2,417,134	817,398

8. Loans Measured at FVTPL

(1) Loans measured at FVTPL as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		December 31, 2020	
	Amortized cost	Fair value (Carrying amounts)	Amortized cost	Fair value (Carrying amounts)
Loans in Korean won:				
Privately placed corporate bonds	₩ 467,762	696,048	795,871	1,429,258
Loans in foreign currencies/off-shores:				
Privately placed corporate bonds	5,650	5,240	5,440	5,256
	₩ 473,412	701,288	801,311	1,434,514

(2) Gains (losses) related to loans measured at FVTPL for the six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Transaction gains (losses) on loans measured at FVTPL				
Transaction gains	₩ 1,820,467	1,832,631	1,171	2,678
Transaction losses	(3,494)	(4,461)	(13,948)	(17,188)
	1,816,973	1,828,170	(12,777)	(14,510)
Valuation gains (losses) on loans measured at FVTPL				
Valuation gains	(830,230)	121,556	43,623	62,057
Valuation losses	(1,111)	(4,899)	(1,407)	(6,719)
	(831,341)	116,657	42,216	55,338
	₩ 985,632	1,944,827	29,439	40,828

9. Loans Measured at Amortized Cost

(1) Loans measured at amortized cost and loss allowance for loan as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		December 31, 2020	
	Amortized cost	Fair value	Amortized cost	Fair value
Loans in Korean won:				
Loans for working capital	₩ 65,337,331	63,612,342	63,711,135	62,132,170
Loans for facility development	53,224,325	52,256,010	51,237,311	50,692,553
Loans for households	217,119	216,641	238,011	240,468
Inter-bank loans	2,864,969	2,690,196	2,710,868	2,589,344
	121,643,744	118,775,189	117,897,325	115,654,535
Loans in foreign currencies:				
Loans	18,908,566	18,653,701	17,196,875	16,860,390
Inter-bank loans	2,488,936	2,488,529	1,636,589	1,636,166
Off-shore loans	15,453,865	15,097,262	14,697,580	14,387,438
	36,851,367	36,239,492	33,531,044	32,883,994
Other loans:				
Bills bought in foreign currency	2,210,969	2,209,807	2,198,964	2,198,079
Advances for customers on acceptances and guarantees	39,447	9,789	49,908	10,776
Privately placed corporate bonds	1,120,043	909,380	1,182,436	969,648
Others	5,506,649	5,384,093	4,223,895	4,102,454
	8,877,108	8,513,069	7,655,203	7,280,957
		163,527,750		155,819,486
Less:				
Loss allowance for loan	(4,474,340)		(3,776,491)	
Present value discount	(16,128)		(15,906)	
Deferred loan origination costs and fees	12,785		9,003	
	₩ 162,894,536		155,300,178	

9. Loans Measured at Amortized Cost, Continued

(2) Changes in loss allowance for loan for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 640,094	1,398,461	1,737,936	3,776,491
Transfer to 12-month expected credit loss	7,761	(7,761)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired	(602,527)	602,583	(56)	—
Transfer to credit-impaired	(152,782)	(241,699)	394,481	—
Provision for loss allowance	393,374	421,122	114,110	928,606
Write-offs	—	—	(20,000)	(20,000)
Recovery	—	—	38,992	38,992
Disposal	—	—	(195,323)	(195,323)
Debt-to-equity swap	—	—	(118,676)	(118,676)
Foreign currency translation	2,252	19,747	9,561	31,560
Other	(2,199)	19,566	15,323	32,690
Ending balance	₩ 285,973	2,212,019	1,976,348	4,474,340

	2020			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 169,293	1,045,942	1,890,547	3,105,782
Transfer to 12-month expected credit loss	21,459	(21,459)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired	(146,311)	153,243	(6,932)	—
Transfer to credit-impaired	(41,745)	(182,592)	224,337	—
Provision for (reversal of) loss allowance	267,324	204,994	(133,627)	338,691
Write-offs	—	—	(122,638)	(122,638)
Recovery	—	—	23,367	23,367
Disposal	—	—	(164,270)	(164,270)
Debt-to-equity swap	—	—	(21,116)	(21,116)
Foreign currency translation	1,680	17,511	10,457	29,648
Other	70	12,830	21,737	34,637
Ending balance	₩ 271,770	1,230,469	1,721,862	3,224,101

9. Loans Measured at Amortized Cost, Continued

(3) Gains (losses) related to loans measured at amortized cost for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Provision for loan allowance for loan	₩ (838,872)	(928,606)	(139,199)	(338,691)
Gains(losses) on disposal of loan	4,129	32,525	(39,296)	(41,783)
	₩ (834,743)	(896,081)	(178,495)	(380,474)

(4) Changes in net deferred loan origination costs and fees for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Beginning balance	₩ 9,003	7,188
New deferrals	11,060	7,963
Amortization	(7,278)	(6,025)
Ending balance	₩ 12,785	9,126

10. Derivative Financial Instruments

The Bank's derivative financial instruments consist of trading derivatives and hedging derivatives, depending on the nature of each transaction. The Bank enters into hedging derivative transactions mainly for the purpose of hedging risk related to changes in fair values of the underlying assets and liabilities and future cash flows.

The Bank enters into trading derivative transactions such as futures, forwards, swaps and options for arbitrage transactions by speculating on the future value of the underlying asset. Derivatives held-for trading transactions include contracts with the Bank's clients and its liquidation position.

For the purpose of hedging the exposure to the variability of fair values and cash flows of funds in Korean won by changes in interest rate, the Bank mainly uses interest swaps or currency swaps. The main counterparties are foreign financial institutions and local banks. In addition, to hedge the exposure to the variability of fair values of bonds in foreign currencies by changes in interest rate or foreign exchange rate, the Bank mainly uses interest swaps or currency swaps.

The Bank applies net investment hedge accounting by designating non-derivative financial instruments as hedging instruments and any gain or loss on the hedging instruments relating to the effective portion of the hedge is recognised in other comprehensive income and accumulated in the foreign currency translation reserve.

Gains and losses on the hedging instrument accumulated in the foreign currency translation reserve are reclassified to profit or loss on the disposal or partial disposal of the foreign operation.

10. Derivative Financial Instruments, Continued

(1) The notional amounts outstanding for derivative contracts and the carrying amounts of the derivative financial instruments as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021			
	Notional amounts		Carrying amounts	
	Buy	Sell	Asset	Liability
Trading purpose derivative financial instruments:				
Interest rate				
Futures	₩ —	1,784,822	—	—
Swaps	200,478,063	200,477,826	1,027,740	614,939
Options	8,518,394	13,037,459	290,111	327,618
	208,996,457	215,300,107	1,317,851	942,557
Currency				
Futures	16,950	—	—	—
Forwards	67,811,241	52,534,086	1,082,293	1,005,986
Swaps	53,101,754	65,242,631	1,738,484	1,637,398
Options	240,979	241,302	1,816	1,171
	121,170,924	118,018,019	2,822,593	2,644,555
Stock				
Options	355,321	485,257	8,596	439
Allowance and other adjustments	—	—	(22,721)	(642)
	330,522,702	333,803,383	4,126,319	3,586,909
Hedging purpose derivative financial instruments:				
Interest rate (*)				
Swaps	23,714,892	23,714,892	586,723	30,763
Currency				
Swaps	9,008,004	8,703,870	433,438	39,698
Allowance and other adjustments	—	—	(359)	(4,197)
	32,722,896	32,418,762	1,019,802	66,264
	₩ 363,245,598	366,222,145	5,146,121	3,653,173

(*) The expected maximum period for which derivative contracts, applied the cash flow hedge accounting, are exposed to risk of cash flow fluctuation is until April 29, 2025.

10. Derivative Financial Instruments, Continued

	December 31, 2020			
	Notional amounts		Carrying amounts	
	Buy	Sell	Asset	Liability
Trading purpose derivative financial instruments:				
Interest rate				
Futures	₩ 55,000	151,200	—	—
Swaps	187,095,329	187,096,172	1,493,796	811,643
Options	9,055,649	12,890,976	291,068	329,946
	196,205,978	200,138,348	1,784,864	1,141,589
Currency				
Futures	16,320	—	—	—
Forwards	58,129,120	49,012,225	1,807,677	2,251,316
Swaps	50,228,615	56,919,490	3,285,228	2,808,945
Options	422,146	403,029	2,909	5,299
	108,796,201	106,334,744	5,095,814	5,065,560
Stock				
Options	53,571	7,315	8,214	661
Allowance and other adjustments	—	—	(7,921)	(908)
	305,055,750	306,480,407	6,880,971	6,206,902
Hedging purpose derivative financial instruments:				
Interest rate (*)				
Swaps	18,877,120	18,877,120	885,364	19,567
Currency				
Swaps	8,308,800	7,985,902	563,558	83,201
Allowance and other adjustments	—	—	(517)	(4,383)
	27,185,920	26,863,022	1,448,405	98,385
	₩ 332,241,670	333,343,429	8,329,376	6,305,287

(*) The expected maximum period for which derivative contracts, applied the cash flow hedge accounting, are exposed to risk of cash flow fluctuation is until April 29, 2025.

(2) The notional amounts outstanding for the hedging instruments by period as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Interest rate:						
Notional amounts outstanding	₩ 50,000	1,023,346	3,366,541	14,690,423	4,584,582	23,714,892
Currency:						
Notional amounts outstanding	₩ 340,938	716,220	926,812	6,284,581	739,453	9,008,004

10. Derivative Financial Instruments, Continued

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Interest rate:						
Notional amounts outstanding	₩ 47,200	154,043	3,015,053	10,843,135	4,817,689	18,877,120
Currency:						
Notional amounts outstanding	₩ 77,504	290,040	1,851,289	5,711,249	378,718	8,308,800

(3) Details of the balances of the hedging instruments by risk type as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021				
	Notional amounts		Balances		Changes in fair value for the period
	Buy	Sell	Assets	Liabilities	
Cash flow hedge accounting:					
Interest rate risk:					
Swaps	₩ 79,100	79,100	—	—	962
Fair value hedge accounting:					
Interest rate risk:					
Swaps	23,635,792	23,635,792	586,723	30,763	(342,181)
Currency risk:					
Swaps	9,008,004	8,703,870	433,438	39,698	(143,716)
	32,643,796	32,339,662	1,020,161	70,461	(485,897)
	₩ 32,722,896	32,418,762	1,020,161	70,461	(484,935)

	December 31, 2020				
	Notional amounts		Balances		Changes in fair value for 2020
	Buy	Sell	Assets	Liabilities	
Cash flow hedge accounting:					
Interest rate risk					
Swaps	₩ 76,160	76,160	—	—	23
Fair value hedge accounting:					
Interest rate risk					
Swaps	18,800,960	18,800,960	885,364	19,567	358,347
Currency risk					
Swaps	8,308,800	7,985,902	563,558	83,201	502,957
	27,109,760	26,786,862	1,448,922	102,768	861,304
	₩ 27,185,920	26,863,022	1,448,922	102,768	861,327

10. Derivative Financial Instruments, Continued

(4) Details of the balances of the hedged items by risk type as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021					
	Carrying amounts		Change in value of the hedged item		Changes in fair value for the period	Cash flow hedge reserve
	Assets	Liabilities	Assets	Liabilities		
Cash flow hedge accounting:						
Interest rate risk:						
Debt debentures	₩ —	79,100	—	—	—	953
Fair value hedge accounting:						
Interest rate risk:						
Securities measured at FVOCI	2,006,650	—	(64,837)	—	(21,208)	—
Debt debentures	—	22,248,893	—	290,748	358,272	—
Other liabilities (Deposits, etc.)	—	118,661	—	5,611	6,430	—
	2,006,650	22,367,554	(64,837)	296,359	343,494	—
Currency risk:						
Debt debentures	—	9,041,822	—	251,458	148,226	—
	2,006,650	31,409,376	(64,837)	547,817	491,720	—
	₩ 2,006,650	31,488,476	(64,837)	547,817	491,720	953

	December 31, 2020					
	Carrying amounts		Change in value of the hedged item		Changes in fair value for 2020	Cash flow hedge reserve
	Assets	Liabilities	Assets	Liabilities		
Cash flow hedge accounting:						
Interest rate risk						
Debt debentures	₩ —	76,160	—	—	—	47
Fair value hedge accounting:						
Interest rate risk						
Securities measured at FVOCI	1,922,565	—	18,217	—	47,606	—
Debt debentures	—	18,549,949	—	628,869	(396,922)	—
Other liabilities (Deposits, etc.)	—	120,394	—	11,594	(8,770)	—
	1,922,565	18,670,343	18,217	640,463	(358,086)	—
Currency risk						
Debt debentures	—	8,413,087	—	24,675	(503,895)	—
	1,922,565	27,083,430	18,217	665,138	(861,981)	—
	₩ 1,922,565	27,159,590	18,217	665,138	(861,981)	47

10. Derivative Financial Instruments, Continued

(5) Details of hedge ineffectiveness recognized in profit or loss from derivatives for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Interest rate risk	₩ 1,313	(4,447)
Currency risk	4,510	(179)
	₩ 5,823	(4,626)

(6) The summary of the amounts that have affected the statement of comprehensive income as a result of applying cash flow hedge accounting for the six-month periods ended June 30, 2021 and 2020 is as follows:

	2021		
	Change in the value of the hedging instrument recognized in other comprehensive income	Hedge ineffectiveness recognized in profit or loss(*)	Amount reclassified from other comprehensive income to profit or loss(*)
Interest rate risk	₩ 906	56	—

(*) Recognized in gains or losses related to hedging purpose derivatives.

	2020		
	Change in the value of the hedging instrument recognized in other comprehensive income	Hedge ineffectiveness recognized in profit or loss(*)	Amount reclassified from other comprehensive income to profit or loss(*)
Interest rate risk	₩ 20	(60)	304

(*) Recognized in gains or losses related to hedging purpose derivatives.

(7) Details of net investments in foreign operations for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	
	Changes in fair value	Other comprehensive income for hedges of net investments in foreign operations
Currency (foreign exchange risk)	₩ 33,052	15,923

	2020	
	Changes in fair value	Other comprehensive income for hedges of net investments in foreign operations
Currency (foreign exchange risk)	₩ (43,437)	48,975

10. Derivative Financial Instruments, Continued

(8) Details of hedging instruments in hedge of net investments in foreign operations as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021			
	Carrying amount	Changes in fair value for the period	Change in the value of the hedging instrument recognized in other comprehensive income for the period	Hedge ineffectiveness recognized in profit or loss for the period
Debentures in foreign currencies	₩ 944,270	(33,052)	(33,052)	—

	December 31, 2020			
	Carrying amount	Changes in fair value for 2020	Change in the value of the hedging instrument recognized in other comprehensive income for 2020	Hedge ineffectiveness recognized in profit or loss for 2020
Debentures in foreign currencies	₩ 732,566	43,437	43,437	—

(9) In relation to interest rate benchmark reform, the amendments provide a practical expedient allowing entities to change the effective interest rate instead of changing the carrying amount and apply hedge accounting without discontinuance although the interest rate benchmark is replaced in hedging relationship. The Bank's notional amounts outstanding for hedging derivative instruments affected by Interest Rate Benchmark Reform as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
USD 3M LIBOR	₩ 22,775,296	17,393,414
KRW 3M CD	3,705,000	2,635,000
EUR 3M EURIBOR	516,376	537,149
EUR 6M EURIBOR	672,210	669,120
GBP 6M LIBOR	216,293	205,904
JPY 3M LIBOR	22,487	23,194

11. Investments in Subsidiaries and Associates

(1) Investments in subsidiaries and associates as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Subsidiaries:(*1)		
KDB Asia Ltd.	₩ 332,907	332,907
KDB Bank Europe Ltd.(*2)	144,790	144,659
KDB Ireland Ltd.	62,389	62,389
KDB Bank Uzbekistan Ltd.	47,937	47,937
Banco KDB Do Brazil S.A.(*3)	34,032	31,270
KDB Indonesia Ltd.	40,288	40,233
KDB Silicon Valley LLC	5,565	—
KDB Investment Co., Ltd.	70,000	70,000
KDB Biz Co., Ltd.	1,500	1,500
KDB Capital Corporation	597,290	597,290
Korea BTL Financing 1	149,526	156,109
Korea Railroad Financing 1	87,469	90,316
Korea Education Financing	47,939	50,274
KDB Infrastructure Investment Asset Management Co., Ltd.	16,843	16,843
Korea Infrastructure Financing Co.(*4)	—	2,313
KDB Investment PEF No.1(*5)	1,137,683	977,570
KDB Consus Value PEF(*6)	157,525	157,759
KDB Sigma PEF II	10,356	18,468
KDB Value PEF VII(*7)	350	9,231
KDB-IAP OBOR PEF(*8)	—	6,086
KDB Asia PEF	36,672	26,326
KDB Small Medium Mezzanine PEF	81,740	81,740
Corporate Liquidity Assistance Agency Co., Ltd.	1,000,000	1,000,000
	4,062,801	3,921,220
Associates:		
Korea Electric Power Co., Ltd.	16,921,067	16,921,067
Korea Tourism Organization	337,286	337,286
Korea Infrastructure Financing 2 Co.	213,028	219,902
Korea Ocean Business Corporation	631,777	631,777
Korea Real Estate Board	58,492	58,492
HMM Co., Ltd.	2,736,835	78,835
GM Korea Company(*9)	402,942	436,930
Hanjin Heavy Industries & Construction Co., Ltd.(*10)	—	—
HANJIN KAL	500,000	500,000
Multi Asset Electronic Power PEF(*11)	—	19,464
Shinbundang Railroad Co., Ltd.(*12)	30,999	30,999
Troika Resources Investment PEF(*13)	2,294	2,336
Others(*14)	2,428,463	2,395,253
	24,263,183	21,632,341
	₩ 28,325,984	25,553,561

11. Investments in Subsidiaries and Associates, Continued

(*1) The Bank acquired an additional 172,732 of common shares of Daehan Shipbuilding Co., Ltd. and recognized ₩1,727 million of impairment losses for the year ended December 31, 2020, considering the impaired capital of Daehan Shipbuilding Co., Ltd. as objective evidence of impairment.

(*2) For the period ended June 30, 2021, the Bank recognized ₩131 million of reversal of impairment losses considering increase in value in use due to enhancement of expected cash flows from the shares held by the Bank, while for the year ended December 31, 2020 the Bank recognized ₩58,965 million of impairment losses.

(*3) For the period ended June 30, 2021, the Bank recognized ₩2,762 million of reversal of impairment losses considering increase in value in use due to enhancement of expected cash flows from the shares held by the Bank, while for the year ended December 31, 2020 the Bank recognized ₩14,279 million of impairment losses.

(*4) For the period ended June 30, 2021, Korea Infrastructure Financing Co. was liquidated and excluded from the Bank's subsidiaries.

(*5) The Bank recognized ₩146,779 million and ₩2,153 million of reversal of impairment losses for the period ended June 30, 2021 and the year ended December 31, 2020, respectively, considering the increase in the value in use of the shares of Daewoo Engineering & Construction Co., Ltd. held by KDB Investment PEF NO.1 as objective evidence of recovery of impairment.

(*6) The Bank made a stock purchase agreement with JC Partners on the December 31, 2020 to sell the Bank's shares of KDB Life Insurance Co., Ltd., the Bank's sub-subsidiary. The Bank recognized ₩234 million and ₩176,327 million of impairment losses for the period ended June 30, 2021 and the year ended December 31, 2020, respectively, based on the expected cash flows distributed to the Bank through the disposal of KDB Life Insurance Co., Ltd.

(*7) The Bank recognized ₩2,200 million of impairment losses for the period ended June 30, 2021, considering the decline in net asset values due to the decrease in fair value of assets held as objective evidence of impairment.

(*8) The Bank recognized ₩6,086 million and ₩28,054 million of impairment losses for the period ended June 30, 2021 and the year ended December 31, 2020, respectively, considering the decline in net asset values due to the decrease in fair value of assets held as objective evidence of impairment.

(*9) For the period ended June 30, 2021, the Bank recognized ₩33,988 million of impairment losses considering decrease in value in use due to deterioration of operating cash flows, while for the year ended December 31, 2020 the Bank recognized ₩35,417 million of reversal of impairment losses.

(*10) As described in Note 16, the Bank selected Dongbu-led consortium as the preferred bidder for Hanjin Heavy Industries & Construction Co., Ltd. on December 22, 2020, and made the share purchase agreement on April 15, 2021. The relevant investments in associates were reclassified as assets held for sale. The Bank recognized ₩11,613 million of reversal of impairment losses for the year ended December 31, 2020 based on the expected cash flows distributed to the Bank through the disposal of Hanjin Heavy Industries & Construction Co., Ltd.

(*11) For the period ended June 30, 2021, Multi Asset Electronic Power PEF was liquidated and excluded from the Bank's subsidiaries.

(*12) The Bank recognized ₩21,577 million of reversal of impairment losses for the year ended December 31, 2020, respectively, considering increase in fair value due to improvement of expected dividend cash flows from the shares held by the Bank.

(*13) The Bank recognized ₩42 million and ₩1,222 million of impairment losses for the period ended June 30, 2021 and the year ended December 31, 2020, respectively, considering the decline in net asset values due to the decrease in fair value of assets held as objective evidence of impairment.

11. Investments in Subsidiaries and Associates, Continued

(*14) The Bank recognized ₩19,126 million of impairment losses for KoFC Value-up Private Equity Fund and 16 other companies for the period ended June 30, 2021. The Bank recognized ₩29,503 million of impairment losses for KBS KDB PEF and 19 other companies for the year ended December 31, 2020.

(2) The market value of marketable investments in subsidiaries and associates as of June 30, 2021 and December 31, 2020 are as follows:

	Market value		Carrying amounts	
	June 30, 2021	December 31, 2020	June 30, 2021	December 31, 2020
Korea Electric Power Co., Ltd.	₩ 5,249,196	5,787,846	16,921,067	16,921,067
HMM Co., Ltd.	4,442,649	574,730	2,736,835	78,835
HANJIN KAL	466,102	445,621	500,000	500,000
KG Dongbu Steel Co., Ltd.	71,511	127,359	24,652	67,599

(3) The key financial information of subsidiaries and associates invested and ownership ratios as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021									
	Country	Fiscal year end	Industry	Assets	Liabilities	Equity	Operating revenue	Net income (loss)	Total comprehensive income (loss)	Ownership (%)
Subsidiaries:										
KDB Asia Ltd.	Hong Kong	December	Finance	₩ 3,001,896	2,494,360	507,536	67,250	18,848	36,169	100
KDB Bank Europe Ltd.	Hungary	December	Finance	1,064,542	948,913	115,629	17,754	1,806	4,234	100
KDB Ireland Ltd.	Ireland	December	Finance	514,786	411,133	103,653	9,193	962	4,553	100
KDB Bank Uzbekistan Ltd.	Uzbekistan	December	Finance	672,128	594,928	77,200	12,978	4,725	11,313	86.32
Banco KDB Do Brazil S.A.	Brazil	December	Finance	368,628	304,161	64,467	29,818	598	5,901	100
KDB Indonesia Ltd.	Indonesia	December	Finance	85,196	55,484	29,712	4,332	(963)	(724)	84.65
KDB Silicon Valley LLC	USA	December	Finance	5,652	—	5,652	2	2	—	100
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Korea	December	Manufacturing	9,816,076	7,189,675	2,626,401	2,171,179	(1,246,945)	(1,241,471)	55.68
Sam Woo Heavy Industries Co., Ltd.(*1)	Korea	December	Manufacturing	256,441	237,764	18,677	38,022	(3,664)	(3,664)	100
Daehan Shipbuilding Co., Ltd.(*1)	Korea	December	Manufacturing	564,950	758,020	(193,070)	379,533	(38,731)	(38,731)	70.04
KDB Capital Corporation	Korea	December	Specialized Credit Finance	7,201,847	6,018,893	1,182,954	293,389	120,105	121,691	99.92
Korea BTL Financing 1(*2)	Korea	Semi-annually	Financial investment	381,425	245	381,180	9,098	8,549	8,549	41.67
Korea Railroad Financing 1(*2)	Korea	Semi-annually	Financial investment	186,069	5	186,064	3,677	3,451	3,451	50
Korea Education Financing(*2)	Korea	Semi-annually	Financial investment	104,118	7	104,111	1,970	1,621	1,621	50
KDB Infrastructure Investment Asset Management Co., Ltd.	Korea	December	Asset management	56,823	9,423	47,400	17,862	9,097	9,097	84.16
KDB Investment Co., Ltd.	Korea	December	Finance	78,211	2,336	75,875	4,556	1,272	1,272	100
KDB Biz Co., Ltd.	Korea	December	Services	6,748	4,624	2,124	11,999	(176)	(176)	100
KDB Investment PEF No.1	Korea	December	Financial investment	10,718,947	7,928,160	2,790,787	4,219,728	136,810	152,468	99.40
KDB Consus Value PEF	Korea	December	Financial investment	19,633,259	19,380,190	253,069	2	(8,585)	(259,601)	68.20
KDB Sigma PEF II	Korea	December	Financial investment	15,117	2	15,115	24	(3,316)	(3,316)	60

11. Investments in Subsidiaries and Associates, Continued

	June 30, 2021									
	Country	Fiscal year end	Industry	Assets	Liabilities	Equity	Operating revenue	Net income (loss)	Total comprehensive income (loss)	Ownership (%)
KDB Value PEF VII(*3)	Korea	December	Financial investment	18,362	—	18,362	5	(1,137)	(1,137)	50
KDB-IAP OBOR PEF(*3)	Korea	December	Financial investment	52,473	52,187	286	—	(72,020)	(70,094)	33.52
KDB Asia PEF(*3)	Korea	December	Financial investment	69,180	181	68,999	—	(1,842)	1,634	50
KDB Small Medium Mezzanine PEF	Korea	December	Financial investment	102,162	218	101,944	8,182	(8,159)	(7,371)	66.67
Corporate Liquidity Assistance Agency Co., Ltd.	Korea	December	Financial investment	4,417,448	3,398,050	1,019,398	39,305	16,689	16,689	100
Components and Materials M&A PEF	Korea	December	Financial investment	1,047	1,831	(784)	1	(33)	(33)	83.33
Associates:										
Korea Electric Power Co., Ltd.	Korea	December	Electricity Generation	206,982,941	137,290,234	69,692,707	28,594,215	(610,120)	(275,589)	32.90
Korea Tourism Organization	Korea	December	Culture and Tourism administration	1,236,590	369,410	867,180	160,124	(70,915)	(68,557)	43.58
Korea Infrastructure Financing 2 Co.	Korea	December	Financial investment	839,048	44,724	794,324	32,424	6,069	6,069	26.67
Korea Ocean Business Corporation	Korea	December	Finance	19,780,026	7,073,807	12,706,219	10,719,866	7,718,473	7,725,648	22.11
Korea Real Estate Board	Korea	December	Appraisal	299,149	76,072	223,077	99,958	13,958	13,771	30.60
GM Korea Company (*4)	Korea	December	Manufacturing	4,853,377	3,464,004	1,389,373	3,961,834	(293,362)	(290,418)	17.02
HMM Co., Ltd.(*5)	Korea	December	Foreign cargo transportation	12,467,253	7,290,562	5,176,691	5,334,746	364,570	465,962	24.96
HANJIN KAL(*4)	Korea	December	Holding compnay	3,510,994	1,977,693	1,533,301	175,667	(118,275)	(109,509)	10.66
Shinbundang Railroad Co., Ltd.(*6)	Korea	December	Other	654,510	973,492	(318,982)	66,206	(191,263)	(191,263)	10.98
Troika Resources Investment PEF(*7)	Korea	December	Financial investment	5,573	1,371	4,202	51	(9)	(9)	54.94

	December 31, 2020									
	Country	Fiscal year end	Industry	Assets	Liabilities	Equity	Operating revenue	Net income (loss)	Total comprehensive income (loss)	Ownership (%)
Subsidiaries:										
KDB Asia Ltd.	Hong Kong	December	Finance	₩ 2,693,398	2,222,031	471,367	132,319	12,603	(18,151)	100
KDB Bank Europe Ltd.	Hungary	December	Finance	1,191,023	1,079,628	111,395	55,804	(15,780)	(26,355)	100
KDB Ireland Ltd.	Ireland	December	Finance	468,754	369,654	99,100	23,062	4,572	(1,828)	100
KDB Bank Uzbekistan Ltd.	Uzbekistan	December	Finance	628,874	562,988	65,886	24,028	8,401	(4,776)	86.32
Banco KDB Do Brazil S.A.	Brazil	December	Finance	315,666	257,100	58,566	96,007	1,917	(19,812)	100
KDB Indonesia Ltd.	Indonesia	December	Finance	87,891	57,455	30,436	12,345	1,831	1,831	84.65
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Korea	December	Manufacturing	10,320,775	6,451,804	3,868,971	7,030,175	86,573	114,107	55.68
Sam Woo Heavy Industries Co., Ltd.(*1)	Korea	December	Manufacturing	253,735	231,394	22,341	135,932	1,037	1,104	100
Daehan Shipbuilding Co., Ltd.(*1)	Korea	December	Manufacturing	636,255	790,594	(154,339)	765,204	(5,518)	(5,704)	70.04
KDB Capital Corporation	Korea	December	Specialized Credit Finance	6,607,724	5,518,888	1,088,836	431,722	173,681	171,657	99.92
Korea BTL Financing 1(*2)	Korea	Semi-annually	Financial investment	395,038	259	394,779	14,120	6,822	6,822	41.67

11. Investments in Subsidiaries and Associates, Continued

	December 31, 2020									
	Country	Fiscal year end	Industry	Assets	Liabilities	Equity	Operating revenue	Net income (loss)	Total comprehensive income (loss)	Ownership (%)
Korea Railroad Financing 1(*2)	Korea	Semi-annually	Financial investment	190,706	9	190,697	9,681	9,201	9,201	50
Korea Education Financing(*2)	Korea	Semi-annually	Financial investment	108,656	7	108,649	7,275	6,994	6,994	50
KDB Infrastructure Investment Asset Management Co., Ltd.	Korea	December	Asset management	59,818	10,715	49,103	35,072	17,972	17,951	84.16
KDB Investment Co., Ltd.	Korea	December	Finance	77,601	2,997	74,604	9,420	3,042	3,054	100
KDB Biz Co., Ltd.	Korea	December	Services	8,207	5,907	2,300	25,468	1,149	603	100
Korea Infrastructure Financing Co.	Korea	December	Financial investment	2,777	12	2,765	191	(22)	(22)	85
KDB Investment PEF No.1	Korea	December	Financial investment	9,701,074	7,233,393	2,467,681	8,361,795	58,745	23,799	99.40
KDB Consus Value PEF	Korea	December	Financial investment	19,548,528	19,015,550	532,978	8	(140,754)	(172,013)	68.20
KDB Sigma PEF II	Korea	December	Financial investment	39,432	1	39,431	51,694	51,465	52,715	60
KDB Value PEF VII(*3)	Korea	December	Financial investment	27,294	82	27,212	763	(154)	(154)	50
KDB-IAP OBOR PEF(*3)	Korea	December	Financial investment	119,687	49,307	70,380	—	(23,969)	(28,026)	33.52
KDB Asia PEF(*3)	Korea	December	Financial investment	46,847	175	46,672	—	4,910	(5,606)	50
KDB Small Medium Mezzanine PEF	Korea	December	Financial investment	120,692	377	120,315	9,416	(4,740)	(5,655)	66.67
Corporate Liquidity Assistance Agency Co., Ltd.	Korea	December	Financial investment	2,992,986	1,990,277	1,002,709	20,419	2,709	2,709	100
Components and Materials M&A PEF	Korea	December	Financial investment	1,076	1,827	(751)	2	(13)	(13)	83.33
Associates:										
Korea Electric Power Co., Ltd.	Korea	December	Electricity Generation	203,142,111	132,475,265	70,666,846	58,569,314	1,991,347	1,802,824	32.90
Korea Tourism Organization	Korea	December	Culture and Tourism administration	1,351,779	388,854	962,925	488,285	(56,712)	(60,819)	43.58
Korea Infrastructure Financing 2 Co.	Korea	December	Financial investment	874,470	31,518	842,952	68,022	47,318	47,318	26.67
Korea Ocean Business Corporation	Korea	December	Finance	8,826,068	3,842,127	4,983,941	3,597,982	2,689,659	2,690,496	22.33
Korea Real Estate Board (formerly known as Korea Appraisal Board)	Korea	December	Appraisal	263,852	52,438	211,414	177,955	5,540	3,093	30.60
GM Korea Company(*4)	Korea	December	Manufacturing	5,415,322	3,739,509	1,675,813	8,504,588	(302,847)	(302,847)	17.02
HMM Co., Ltd.(*5)	Korea	December	Foreign cargo transportation	9,373,360	7,684,812	1,688,548	6,413,270	123,889	(33,766)	12.61
HANJIN KAL(*4)	Korea	December	Holding compnay	3,488,569	1,824,304	1,664,265	408,827	(269,846)	(222,157)	10.66
Multi Asset Electronic Power PEF	Korea	December	Financial investment	70,913	213	70,700	36,330	36,218	36,218	50
Shinbundang Railroad Co., Ltd.(*6)	Korea	December	Other	679,176	999,986	(320,810)	76,427	(50,329)	(50,329)	10.98
Troika Resources Investment PEF(*7)	Korea	December	Financial investment	5,496	1,286	4,210	312	(131)	(131)	54.94

(*1) The Bank consolidates the investees which were subsidiaries of Daewoo Shipbuilding & Marine Engineering Co., Ltd. as the Bank has had control over the investees through the commencement of the administrative proceeding since the past.

11. Investments in Subsidiaries and Associates, Continued

(*2) The investees are financed by the Bank and managed by KDB Infrastructure Investments Asset Management Co., Ltd. They were included in the scope of consolidation even though the Bank holds less than half of the voting rights because the Bank is exposed to variable returns and has the ability to affect those returns through its power over the investee.

(*3) Although the Bank's shareholding in the investee is less than 50%, it controls the investee since it is exposed, or has right to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

(*4) Although the Bank's shareholding is less than 20%, the Bank has significant influence considering the right to elect the investees' directors and the Bank classifies the companies as associates.

(*5) Although the Bank's shareholding is less than 20%, the Bank is considered to have significant influence as the principal creditor bank for the year ended December 31, 2020. For the period ended June 30, 2021, the Bank exercised the conversion right and hold more than 20% of the shares.

(*6) The shareholding is above 20% upon the consideration of shares owned by the Bank's subsidiaries. Therefore, the Bank exercises significant influence over the associate.

(*7) Although the Bank's shareholding in Troika Resources Investment PEF is above 50%, the Bank as joint managing member does not have the ability to direct the relevant activities unilaterally.

12. Property and Equipment

Changes in property and equipment for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021					
	January 1, 2021	Acquisition/ depreciation	Disposal	Reclassification	Foreign exchange differences	June 30, 2021
Acquisition cost:						
Land	₩ 305,836	—	(62)	(543)	—	305,231
Buildings and structures	600,627	2,548	(660)	(525)	—	601,990
Leasehold improvements	42,180	578	(4,525)	—	23	38,256
Vehicles	734	—	—	—	15	749
Equipment	54,528	1,385	(1,704)	—	67	54,276
Construction in progress	13,615	8,712	—	(573)	—	21,754
Right-of-use assets (Real estate)	81,203	26,163	(17,371)	—	1,365	91,360
Right-of-use assets (Vehicles)	5,989	703	(516)	—	24	6,200
Right-of-use assets (Others)	27	—	—	—	1	28
Others	179,109	3,388	(32,878)	—	105	149,724
	1,283,848	43,477	(57,716)	(1,641)	1,600	1,269,568
Accumulated depreciation:						
Buildings and structures(*)	200,349	8,463	(289)	(147)	—	208,376
Leasehold improvements	36,025	1,839	(3,997)	—	(2)	33,865
Vehicles	533	31	—	—	8	572
Equipment(*)	44,197	1,527	(1,186)	—	50	44,588
Right-of-use assets (Real estate)	39,533	15,315	(13,059)	—	446	42,235
Right-of-use assets (Vehicles)	2,604	1,038	(273)	—	11	3,380
Right-of-use assets (Others)	24	4	—	—	1	29
Others	143,817	8,657	(32,614)	—	60	119,920
	467,082	36,874	(51,418)	(147)	574	452,965
Accumulated impairment losses:						
Land	3,023	—	—	—	—	3,023
Buildings and structures	2,361	—	—	—	—	2,361
	5,384	—	—	—	—	5,384
	₩ 811,382	6,603	(6,298)	(1,494)	1,026	811,219

(*) The amounts include government grants.

12. Property and Equipment, Continued

	2020					
	January 1, 2020	Acquisition/ depreciation	Disposal	Reclassification	Foreign exchange differences	June 30, 2020
Acquisition cost:						
Land	₩ 318,940	437	(120)	1,128	—	320,385
Buildings and structures	607,036	2,137	(932)	4,496	—	612,737
Leasehold improvements	43,058	1,982	(2,833)	—	(25)	42,182
Vehicles	740	—	(123)	—	161	778
Equipment	53,170	1,754	(1,932)	—	75	53,067
Construction in progress	1,588	6,217	—	(3,396)	—	4,409
Right-of-use assets (Real estate)	74,792	14,943	(9,376)	—	1,340	81,699
Right-of-use assets (Vehicles)	5,007	1,228	(441)	—	17	5,811
Right-of-use assets (Others)	29	—	—	—	1	30
Others	165,032	1,032	(353)	—	237	165,948
	1,269,392	29,730	(16,110)	2,228	1,806	1,287,046
Accumulated depreciation:						
Buildings and structures(*)	191,473	8,527	(210)	573	—	200,363
Leasehold improvements	36,078	1,562	(1,807)	—	(55)	35,778
Vehicles	596	26	(113)	—	10	519
Equipment(*)	43,348	1,488	(1,374)	—	56	43,518
Right-of-use assets (Real estate)	29,059	13,983	(7,976)	—	670	35,736
Right-of-use assets (Vehicles)	1,997	819	(5)	—	(383)	2,428
Right-of-use assets (Others)	13	6	—	—	1	20
Others	128,593	7,830	(37)	—	4	136,390
	431,157	34,241	(11,522)	573	303	454,752
Accumulated impairment losses:						
Land	3,023	—	—	—	—	3,023
Buildings and structures	2,361	—	—	—	—	2,361
	5,384	—	—	—	—	5,384
	₩ 832,851	(4,511)	(4,588)	1,655	1,503	826,910

(*) The amounts include government grants.

13. Investment Property

Changes in investment property for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021			
	January 1, 2021	Acquisition/ depreciation	Reclassification	June 30, 2021
Acquisition cost:				
Land	₩ 57,778	—	543	58,321
Buildings and structures	56,089	—	1,098	57,187
	113,867	—	1,641	115,508
Accumulated depreciation:				
Buildings and structures	29,827	1,246	147	31,220
Accumulated impairment losses:				
Land	1,197	—	—	1,197
Buildings and structures	1,778	—	—	1,778
	2,975	—	—	2,975
	₩ 81,065	(1,246)	1,494	81,313

	2020			
	January 1, 2020	Acquisition/ depreciation	Reclassification	June 30, 2020
Acquisition cost:				
Land	₩ 49,913	—	(1,128)	48,785
Buildings and structures	40,474	—	(1,100)	39,374
	90,387	—	(2,228)	88,159
Accumulated depreciation:				
Buildings and structures	21,003	604	(573)	21,034
Accumulated impairment losses:				
Land	1,197	—	—	1,197
Buildings and structures	1,778	—	—	1,778
	2,975	—	—	2,975
	₩ 66,409	(604)	(1,655)	64,150

The fair value of the Bank's investment property, as determined based on valuation by an independent appraiser, amounts to ₩97,264 million and ₩96,959 million as of June 30, 2021 and December 31, 2020, respectively. Additionally, fair value of investment in property is classified as level 3 according to the fair value hierarchy in Note 45.

14. Intangible Assets

Changes in intangible assets for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021					
	January 1, 2021	Acquisition	Disposal	Amortization	Foreign exchange differences	June 30, 2021
Development expense	₩ 155,479	2,676	—	(21,740)	5	136,420
Equipment usage right	482	—	—	(22)	16	476
Other deposits provided	11,940	—	—	—	19	11,959
Others	20,516	3,269	—	(4,861)	5	18,929
	₩ 188,417	5,945	—	(26,623)	45	167,784

	2020					
	January 1, 2020	Acquisition	Disposal	Amortization	Foreign exchange differences	June 30, 2020
Development expense	₩ 194,680	1,111	—	(22,318)	—	173,473
Equipment usage right	553	—	—	(23)	17	547
Other deposits provided	10,984	—	—	—	2	10,986
Others	24,712	1,088	—	(4,871)	38	20,967
	₩ 230,929	2,199	—	(27,212)	57	205,973

15. Other Assets

Other assets as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Accounts receivable	₩ 7,216,599	2,662,879
Unsettled domestic exchange receivables	1,747,817	1,313,958
Accrued income	366,955	343,901
Guarantee deposits	205,658	193,003
Financial guarantee asset	19,238	22,982
Prepaid expenses	13,712	14,121
Advance payments	7,996	7,953
Others	29,880	182,484
	9,607,855	4,741,281
Loss allowance for other assets	(84,077)	(79,474)
Present value discount	(1,213)	(1,522)
	₩ 9,522,565	4,660,285

The carrying amounts of financial assets included in other assets above amounted to ₩9,487,732 million and ₩4,463,726 million as of June 30, 2021 and December 31, 2020, respectively, and their fair value amounted to ₩9,486,382 million and ₩4,461,117 million as of June 30, 2021 and December 31, 2020, respectively.

16. Assets Held for Sale

Assets held for sale as of June 30, 2021 and December 31, 2020 are as follows:

	2021			
	Acquisition cost	Fair value less costs to sell	Carrying amount	Reversal of impairment loss
Assets held for sale:				
Investments in subsidiaries(*1)	₩ 2,244,664	2,129,428	2,129,428	(499,949)
Investments in associates(*2)	78,278	78,305	78,305	(27)
	₩ 2,322,942	2,207,733	2,207,733	(499,976)

	2020			
	Acquisition cost	Fair value less costs to sell	Carrying amount	Impairment loss
Assets held for sale:				
Investments in subsidiaries(*1)	₩ 2,244,664	1,629,479	1,629,479	25,926
Investments in associates(*2)	78,278	78,278	78,278	—
Property and equipment	5,590	5,590	5,590	—
	₩ 2,328,532	1,713,347	1,713,347	25,926

(*1) For attracting investment in Daewoo Shipbuilding & Marine Engineering Co., Ltd. ("Daewoo Shipbuilding & Marine Engineering"), the Bank's subsidiary, the Bank and Hyundai Heavy Industries Co., Ltd. ("Hyundai Heavy Industries") made the basic agreement on January 31, 2019 and the contract on investment on March 8, 2019. According to the contract, Hyundai Heavy Industries will make shipbuilding segment, special ship segment, industrial plant segment and engine & machinery segment into each new company and surviving company, Korea Shipbuilding & Offshore Engineering Co., Ltd. ("Korea Shipbuilding & Offshore Engineering"), into holding company defined in the Monopoly Regulation and Fair Trade Act. The Bank will invest the common shares of Daewoo Shipbuilding & Marine Engineering into the common shares and redeemable convertible preference shares of Korea Shipbuilding & Offshore Engineering. Also, Korea Shipbuilding & Offshore Engineering will finance new common shares of Daewoo Shipbuilding & Marine Engineering and be obliged to fund Daewoo Shipbuilding & Marine Engineering.

The Bank made the adjusted contract on investment with Korea Shipbuilding & Offshore Engineering Co., Ltd. on January 22, 2021, reflecting some adjustments to the previous contract on investment made between the Bank and Hyundai Heavy Industries on March 8, 2019.

The contract will be completed after the satisfaction of the contract's precondition including governmental permission of different countries.

(*2) The Bank selected Dongbu-led consortium as the preferred bidder for Hanjin Heavy Industries & Construction Co., LTD. on December 22, 2020, and made the share purchase agreement on April 15, 2021. The relevant investments in associates were reclassified as assets held for sale.

17. Financial Liabilities Measured at FVTPL

(1) Financial liabilities designated at fair value through profit or loss as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Debentures	₩ 1,449,313	1,510,793
Deposits	443,395	184,164
	₩ 1,892,708	1,694,957

Changes in fair value of structured debentures and deposits which hedge accounting are applied, are recognized in profit or loss, but structured debentures with no hedge accounting applied to, are measured at amortized costs. Therefore, such structured debentures and deposits, not applied to hedge accounting, have been designated at FVTPL to eliminate mismatch in measurements of accounting profit and loss.

(2) The difference between the carrying amount and contractual cash flow amount of financial liabilities designated at fair value through profit or loss as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Carrying amount	₩ 1,892,708	1,694,957
Contractual cash flow amounts	1,885,000	1,580,800
Difference	₩ 7,708	114,157

18. Deposits

Deposits as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		December 31, 2020	
	Amortized cost	Fair value	Amortized cost	Fair value
Deposits in Korean won:				
Demand deposits	₩ 109,226	109,226	109,570	109,570
Time and savings deposits	39,748,850	39,732,134	37,097,869	37,110,866
Certificates of deposit	27,135	27,059	467,329	467,342
	39,885,211	39,868,419	37,674,768	37,687,778
Deposits in foreign currencies:				
Demand deposits	1,130,402	1,130,402	1,534,717	1,534,717
Time and savings deposits	3,595,362	3,594,596	2,775,150	2,774,425
Certificates of deposit	3,671,536	3,654,389	3,289,651	3,271,530
	8,397,300	8,379,387	7,599,518	7,580,672
Off-shore deposits in foreign currencies:				
Demand deposits	592,708	592,708	605,133	605,133
	₩ 48,875,219	48,840,514	45,879,419	45,873,583

19. Borrowings

(1) Borrowings as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021			
	Minimum interest rate (%)	Maximum interest rate (%)	Amortized cost	Fair value
Borrowings in Korean won	—	3.15	₩ 4,371,533	4,363,152
Borrowings in foreign currencies	—	5.25	11,915,755	11,912,412
Off-shore borrowings in foreign currencies	—	1.89	1,988,201	1,987,854
Others	0.01	3.29	2,700,581	2,699,971
			20,976,070	20,963,389
Deferred borrowing costs			(175)	
			₩ 20,975,895	

	December 31, 2020			
	Minimum interest rate (%)	Maximum interest rate (%)	Amortized cost	Fair value
Borrowings in Korean won	—	3.15	₩ 4,216,659	4,210,221
Borrowings in foreign currencies	—	3.86	9,996,208	9,988,337
Off-shore borrowings in foreign currencies	—	2.50	1,790,665	1,791,294
Others	0.01	2.55	2,884,139	2,884,301
			18,887,671	18,874,153
Deferred borrowing costs			(60)	
			₩ 18,887,611	

(2) Borrowings in Korean won before adjusting for gains and losses on deferred borrowing costs as of June 30, 2021 and December 31, 2020 are as follows:

Lender	Classification	Annual interest rate (%)	June 30, 2021	December 31, 2020
Ministry of Economy and Finance	Borrowings from government fund(*)	0.47 ~ 0.76	₩ 117,023	125,101
Korea SMEs and Startups Agency	Borrowings from small and medium enterprise promotion fund	0.51 ~ 2.76	61,766	64,892
Ministry of Culture, Sports and Tourism	Borrowings from tourism promotion fund	0.20 ~ 2.00	3,081,365	2,934,681
Korea Energy Agency	Borrowings from fund for rational use of energy	0.25 ~ 2.30	292,741	295,088
Local governments	Borrowings from local small and medium enterprise promotion fund	0.00 ~ 2.95	32,857	37,198
The Bank of Korea	Borrowings from Bank of Korea	0.25	387,829	373,881
Others	Borrowings from petroleum enterprise fund and others	0.00 ~ 3.15	397,952	385,818
			₩ 4,371,533	4,216,659

(*) Borrowings from government fund are subordinated borrowings.

19. Borrowings, Continued

(3) Borrowings and off-shore borrowings in foreign currencies before adjusting for gains and losses on deferred borrowing costs as of June 30, 2021 and December 31, 2020 are as follows:

Lender	Classification	Annual interest rate (%)	June 30, 2021	December 31, 2020
Mizuho and others	Bank loans from foreign funds	3M Libor + 0.24 ~ 3M Libor + 0.78	₩ 452,000	435,200
Ministry of Economy and Finance	Exchange equalization fund borrowings in foreign currencies	3M Libor + 0.22 ~ 3M Libor + 0.74	190,439	183,360
Central Bank of the Republic Uzbekistan and others	Off-shore short term borrowings	0.16 ~ 1.89	1,207,328	1,487,973
HSBC and others	Off-shore long term borrowings	3M Libor + 0.36	780,873	302,692
Others	Short-term borrowings in foreign currencies	0.08 ~ 5.25	10,571,801	8,567,852
	Long term borrowings in foreign currencies	0.10 ~ 1.02	701,515	809,796
			₩ 13,903,956	11,786,873

20. Debentures

Details of debentures as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021			
	Minimum interest rate (%)	Maximum interest rate (%)	Amortized cost	Fair value
Debentures in Korean won:				
Debentures	0.60	6.60	₩ 108,756,966	109,033,706
Discount on debentures			(59,755)	
Valuation adjustment for fair value hedges			(57,622)	
			108,639,589	
Debentures in foreign currencies:				
Debentures	—	6.90	19,038,337	20,309,452
Discount on debentures			(36,096)	
Premium on debentures			1,490	
Valuation adjustment for fair value hedges			369,818	
			19,373,549	
Off-shore debentures:				
Debentures	—	7.00	15,160,939	15,436,622
Discount on debentures			(28,163)	
Premium on debentures			39	
Valuation adjustment for fair value hedges			230,010	
			15,362,825	
			₩ 143,375,963	144,779,780

20. Debentures, Continued

	December 31, 2020			
	Minimum interest rate (%)	Maximum interest rate (%)	Amortized cost	Fair value
Debentures in Korean won:				
Debentures	0.55	6.60	₩ 107,480,364	108,542,792
Discount on debentures			(57,255)	
Valuation adjustment for fair value hedges			49,070	
			107,472,179	
Debentures in foreign currencies:				
Debentures	—	6.90	15,799,118	16,883,195
Discount on debentures			(31,438)	
Premium on debentures			1,677	
Valuation adjustment for fair value hedges			452,330	
			16,221,687	
Off-shore debentures:				
Debentures	—	7.00	14,496,508	14,662,046
Discount on debentures			(23,869)	
Premium on debentures			79	
Valuation adjustment for fair value hedges			152,144	
			14,624,862	
			₩ 138,318,728	140,088,033

21. Net Defined Benefit Liabilities

The Bank implements a defined benefit retirement pension plan based on employee compensation benefits and service periods. The plan assets are in trusts with Kookmin Bank, Samsung Life Insurance Co., Ltd., etc.

(1) Details of net defined benefit liabilities as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Present value of defined benefit obligation	₩ 427,349	415,529
Fair value of plan assets	(356,875)	(364,983)
	₩ 70,474	50,546

21. Net Defined Benefit Liabilities, Continued

(2) Changes in net defined benefit liabilities for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021		
	Present value of defined benefit obligation	Fair value of plan assets	Net defined benefit liabilities
Beginning balance	₩ 415,529	(364,983)	50,546
Current service costs	19,668	—	19,668
Interest expense (income)	4,925	(4,619)	306
Benefits paid by the plan	(12,773)	12,727	(46)
Ending balance	₩ 427,349	(356,875)	70,474

	2020		
	Present value of defined benefit obligation	Fair value of plan assets	Net defined benefit liabilities
Beginning balance	₩ 379,728	(326,587)	53,141
Current service costs	18,778	—	18,778
Interest expense (income)	4,393	(3,933)	460
Benefits paid by the plan	(8,453)	8,344	(109)
Ending balance	₩ 394,446	(322,176)	72,270

(3) Fair value of plan assets for each type as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		December 31, 2020	
	Quoted market prices	Unquoted market prices	Quoted market prices	Unquoted market Prices
Due from banks	₩ —	356,875	—	364,983

(4) Defined benefit costs recognized in profit or loss for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Current service costs	₩ 9,834	19,668	9,386	18,778
Interest expense (income), net	154	306	230	460
	₩ 9,988	19,974	9,616	19,238

21. Net Defined Benefit Liabilities, Continued

(5) The principal actuarial assumptions used as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Discount rate (%)	2.54	2.54
Future salary increasing rate (%)	6.08	6.08

(6) The present value sensitivity of defined benefit obligation as changes in principal actuarial assumptions as of December 31, 2020 is as follows:

	Sensitivity	
	1% increase in assumption	1% decrease in assumption
Discount rate	10.16% decrease	12.06% increase
Future salary increasing rate	11.51% increase	9.94% decrease

(7) The weighted average duration of defined benefit obligation is 11.82 years as of December 31, 2020.

22. Provisions

(1) Details of provisions as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Provision for unused commitments	₩ 764,099	770,760
Provision for financial guarantee	49,444	77,498
Provision for payment guarantees	568,867	603,648
Provision for possible losses from lawsuits	1,563	441
Provision for restoration	14,490	15,365
Other provision	47,441	47,458
	₩ 1,445,904	1,515,170

(2) Changes in provision for unused commitments for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 479,933	290,827	—	770,760
Transfer to 12-month expected credit loss	294,249	(294,249)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired	(61,883)	61,883	—	—
Transfer to credit-impaired	(2,887)	(4,324)	7,211	—
Impairment loss (gain)	(321,210)	298,565	168	(22,477)
Foreign currency translation	14,763	1,024	29	15,816
Ending balance	₩ 402,965	353,726	7,408	764,099

22. Provisions, Continued

	2020			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 428,388	314,204	—	742,592
Transfer to 12-month expected credit loss	5,354	(5,243)	(111)	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired	(7,735)	7,735	—	—
Impairment loss (gain)	18,899	(27,578)	111	(8,568)
Foreign currency translation	16,317	1,610	—	17,927
Ending balance	₩ 461,223	290,728	—	751,951

(3) Changes in provision for financial guarantee for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 45,567	26,007	5,924	77,498
Transfer to 12-month expected credit loss	97	(17)	(80)	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired	(5,593)	5,792	(199)	—
Transfer to credit-impaired	(8,063)	(93)	8,156	—
Impairment loss (gain)	(31,012)	3,700	(742)	(28,054)
Ending balance	₩ 996	35,389	13,059	49,444

	2020			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 1,123	23,121	11,648	35,892
Transfer to 12-month expected credit loss	—	—	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired	(2,368)	2,368	—	—
Transfer to credit-impaired	(79)	—	79	—
Impairment loss (gain)	2,968	3,790	34,075	40,833
Ending balance	₩ 1,644	29,279	45,802	76,725

22. Provisions, Continued

(4) Changes in provision for payment guarantees for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 183,963	155,646	264,039	603,648
Transfer to 12-month expected credit loss	27,229	(27,229)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired exposures	(55,070)	55,070	—	—
Transfer to credit-impaired exposures	(4,820)	(761)	5,581	—
Provision for (reversal of) unused commitments	2,736	(77,483)	27,684	(47,063)
Foreign currency translation	1,597	2,802	7,883	12,282
Ending balance	₩ 155,635	108,045	305,187	568,867

	2020			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 170,320	167,939	336,669	674,928
Transfer to 12-month expected credit loss	82	(82)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired exposures	(954)	954	—	—
Provision for (reversal of) unused commitments	(24,112)	(101,750)	(42,078)	(167,940)
Foreign currency translation	1,508	3,868	14,922	20,298
Ending balance	₩ 146,844	70,929	309,513	527,286

(5) Changes of lawsuit provision and other provision for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021		
	Lawsuit provision	Provision for restoration	Other provision
Beginning balance	₩ 441	15,365	47,458
Increase (decrease) of provision	1,122	(1,211)	—
Provision used and others	—	336	(17)
Ending balance	₩ 1,563	14,490	47,441

22. Provisions, Continued

	2020		
	Lawsuit provision	Provision for restoration	Other provision
Beginning balance	₩ 12,302	15,167	38,983
Increase (decrease) of provision	—	(269)	—
Provision used and others	—	391	—
Ending balance	₩ 12,302	15,289	38,983

(6) Provision for payment guarantees and financial guarantee

Confirmed acceptances and guarantees, unconfirmed acceptances and guarantees and bills endorsed are not recognized on the statement of financial position, but are disclosed as off-statement of financial position items in the notes to the financial statements. The Bank provides a provision for such off-statement of financial position items, applying a Credit Conversion Factor (CCF) and provision rates under the Bank's expected credit loss model, and records the provision as a reserve for expected credit losses on acceptances and guarantees.

In the case of financial guarantee contracts, when the amount calculated using the same method as above is greater than the initial amount less amortization of fees recognized, the difference is recorded as provision for financial guarantee.

(7) Provision for unused commitments

The Bank records a provision for a certain portion of unused credit lines which is calculated using a CCF as provision for unused commitments applying provision rates under the Bank's expected credit loss model.

(8) Provision for possible losses from lawsuits

As of June 30, 2021, the Bank is involved in 21 lawsuits as a plaintiff and 32 lawsuits as a defendant. The aggregate amounts of claims as a plaintiff and a defendant amounted to ₩196,869 million and ₩213,778 million, respectively. The Bank provided a provision against contingent loss from pending lawsuits as of June 30, 2021 and additional losses may be incurred depending on the result of pending lawsuits.

22. Provisions, Continued

Major lawsuits in progress as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		
	Contents	**Amounts**	**Status of lawsuit**
Plaintiff:			
Korea Trade Insurance Corporation and one other	Claim for guarantee insurance	₩ 136,538	1st trial ruled against the Bank; 2nd trial in progress
KAMCO 1st JV Securitization Specialty Co., Ltd.	Transfer of claim	8,792	1st trial in progress
Korea Land & Housing Corporation	Claim for return of residual property	4,568	2nd trial in progress
Kappa Korea and one other	Claim for loans	1,000	1st trial in progress
Defendant:			
Shinhan Bank and one other	Claim for damages	58,474	1st trial in progress
Defense Acquisition Program Administration	Claim for guaranteed debt	56,977	1st, 2nd trial ruled partially against the Bank; 3rd trial in progress
Dongbu Corporation	Claim for nullity of table of rehabilitation creditor	33,997	1st trial ruled in favor of the Bank; 2nd trial ruled against the Bank; 3rd trial in progress
Dongbu Corporation	Claim for objection of request (participation to support)	19,658	1st trial in progress
Hana Bank	Claim for settlement money and others	7,500	1st, 2nd trial ruled in favor of the Bank; 3rd trial in progress

	December 31, 2020		
	Contents	**Amounts**	**Status of lawsuit**
Plaintiff:			
Korea Trade Insurance Corporation and one other	Claim for guarantee insurance	₩ 136,538	1st trial ruled against the Bank; 2nd trial in progress
KAMCO 1st JV Securitization Specialty Co., Ltd.	Transfer of claim	8,792	1st trial in progress
Dadae Construction Co., Ltd.	Absence of liens	2,900	1st trial ruled in favor of the Bank; 2nd trial in progress
Korea Technology Finance Corporation	Claim for guarantee	872	1st trial ruled partially in favor of the Bank; 2nd trial in progress
Defendant:			
Shinhan Bank and one other	Claim for damages	58,474	1st trial in progress
Defense Acquisition Program Administration	Claim for guaranteed debt	56,977	1st, 2nd trial ruled partially against the Bank; 3rd trial in progress

22. Provisions, Continued

	December 31, 2020		
	Contents	Amounts	Status of lawsuit
Dongbu Corporation	Claim for nullity of table of rehabilitation creditor	33,997	1st trial ruled in favor of the Bank; 2nd trial ruled against the Bank; 3rd trial in progress
Dongbu Corporation	Claim for objection of request (participation to support)	19,658	1st trial in progress
Woori Bank	Claim for disposal of debt	12,470	1st, 2nd trial ruled in favor of the Bank; 3rd trial in progress

(9) Other provision

The Bank recognised other provision as a reserve for other miscellaneous purpose.

23. Other Liabilities

(1) Other liabilities as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Accounts payable	₩ 6,880,712	2,623,207
Lease liabilities	133,840	75,523
Accrued expense	1,494,709	1,657,438
Advance received	—	920
Unearned income	33,110	45,344
Deposits withholding tax	22,912	22,019
Guarantee money received	398,896	720,932
Foreign exchanges payable	26,873	307,935
Domestic exchanges payable	410,087	587,194
Borrowing from trust accounts	1,494,132	973,885
Financial guarantee liability	21,660	25,347
Others	103,604	64,153
	11,020,535	7,103,897
Present value discount	(85,485)	(34,891)
	₩ 10,935,050	7,069,006

The carrying amount of financial liabilities included in other liabilities above amounted to ₩10,751,127 million and ₩6,896,581 million as of June 30, 2021 and December 31, 2020, respectively, and their fair value amounted to ₩10,739,115 million and ₩6,889,375 million as of June 30, 2021 and December 31, 2020, respectively.

23. Other Liabilities, Continued

(2) Details of lease liabilities as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		
	Face value	Discount	Carrying amounts
Real estate	₩ 129,858	(82,540)	47,318
Vehicles	3,981	(1,059)	2,922
Others	1	—	1
	₩ 133,840	(83,599)	50,241

	December 31, 2020		
	Face value	Discount	Carrying amounts
Real estate	₩ 71,207	(31,964)	39,243
Vehicles	3,923	(639)	3,284
Others	393	(197)	196
	₩ 75,523	(32,800)	42,723

(3) The amount related to lease recognized in the separate statement of comprehensive income for the six-month periods ended June 30, 2021 and 2020 is as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Depreciation of right-of-use assets				
Real estate	₩ 7,322	15,315	6,293	13,983
Vehicles	527	1,038	265	819
Others	1	4	3	6
	7,850	16,357	6,561	14,808
Interest expenses on the lease liabilities	342	357	217	477
Expense relating to short-term leases	—	—	—	66
Expense relating to leases of low-value assets	3,342	3,776	79	150
	₩ 11,534	20,490	6,857	15,501

(4) Cash flows used in lease liabilities for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Decrease in lease liabilities	₩ 11,492	12,308
Lease payments relating to short-term leases	—	66
Lease payments relating to leases of low-value assets	3,776	150
	₩ 15,268	12,524

23. Other Liabilities, Continued

(5) Maturity analysis of undiscounted lease payments relating to lease liabilities as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021				
	Within 3 months	3 months ~ 1 year	1 year ~ 5 years	Over 5 years	Total
Lease payments	₩ 15,328	36,174	82,338	—	133,840

	December 31, 2020				
	Within 3 months	3 months ~ 1 year	1 year ~ 5 years	Over 5 years	Total
Lease payments	₩ 10,659	26,225	38,639	—	75,523

24. Equity

(1) Issued capital

The Bank is authorized to issue up to 6,000 million shares of common stock and has 4,377,311,768 shares issued and 4,153,145,768 shares issued as of June 30, 2021 and December 31, 2020, respectively, and outstanding with a total par value (₩5,000 of par value per share) of ₩21,886,559 million and ₩20,765,729 million as of June 30, 2021 and December 31, 2020, respectively.

(2) Capital surplus

Capital surplus as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Paid-in capital in excess of par value	₩ 44,142	49,530
Surplus from capital reduction(*1)	44,373	44,373
Other capital surplus(*2)	2,390,495	2,390,495
	₩ 2,479,010	2,484,398

(*1) The Bank reduced ₩5,178,600 million of its issued capital in 1998 and 2000 to offset its accumulated deficit amounting to ₩5,134,227 million. As the result of the capital reduction, ₩44,373 million of surplus exceeding accumulated deficit was recorded in capital surplus in equity.

(*2) The difference in the amount of shares issued and the carrying value of net asset acquired occurring from the merger of the Bank with KDB Financial Group Inc. and Korea Finance Corporation are recognized as other capital surplus.

24. Equity, Continued

(3) Accumulated other comprehensive income

(i) Accumulated other comprehensive income as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Net gain (loss) on securities measured at FVOCI		
Valuation gain (loss) on securities measured at FVOCI (before tax)	₩ 11,141,788	2,787,519
Loss allowance for securities measured at FVOCI (before tax)	84,206	81,278
Income tax effect	(3,087,148)	(788,919)
	8,138,846	2,079,878
Exchange differences on translation of foreign operations:		
Exchange differences on translation of foreign operations (before tax)	(19,032)	(60,912)
Income tax effect	—	—
	(19,032)	(60,912)
Valuation gain (loss) on cash flow hedge:		
Valuation gain (loss) on cash flow hedge (before tax)	953	47
Income tax effect	(262)	(13)
	691	34
Net gain on hedges of net investments in foreign operations:		
Net gain on hedges of net investments in foreign operations (before tax)	15,923	48,975
Income tax effect	(4,379)	(13,468)
	11,544	35,507
Remeasurements of defined benefit liabilities:		
Remeasurements of defined benefit liabilities (before tax)	21,562	21,562
Income tax effect	(5,928)	(5,928)
	15,634	15,634
Fair value changes on financial liabilities designated at fair value due to credit risk:		
Valuation loss on financial liabilities designated at fair value due to credit risk (before tax)	(7,388)	(7,959)
Income tax effect	2,032	2,189
	(5,356)	(5,770)
	₩ 8,142,327	2,064,371

24. Equity, Continued

(ii) Changes in accumulated other comprehensive income for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021			
	January 1, 2021	Increase (Decrease)	Tax Effect	June 30, 2021
Gain (loss) on Securities Measured at FVOCI	₩ 2,079,878	8,357,197	(2,298,229)	8,138,846
Exchange differences on translation of foreign operations	(60,912)	41,880	—	(19,032)
Valuation gain (loss) on cash flow hedge	34	906	(249)	691
Valuation gain (loss) on hedges of net investments in foreign operations	35,507	(33,052)	9,089	11,544
Remeasurements of defined benefit liabilities	15,634	—	—	15,634
Valuation gain (loss) on financial liabilities designated at fair value due to credit risk	(5,770)	571	(157)	(5,356)
	₩ 2,064,371	8,367,502	(2,289,546)	8,142,327

	2020			
	January 1, 2020	Increase (Decrease)	Tax Effect	June 30, 2020
Gain (loss) on Securities Measured at FVOCI	₩ (99,406)	131,514	(36,166)	(4,058)
Exchange differences on translation of foreign operations	(7,158)	32,160	—	25,002
Valuation gain (loss) on cash flow hedge	(292)	324	(89)	(57)
Valuation gain (loss) on hedges of net investments in foreign operations	4,015	(26,697)	7,342	(15,340)
Remeasurements of defined benefit liabilities	19,331	—	—	19,331
Valuation gain (loss) on financial liabilities designated at fair value due to credit risk	(4,582)	906	(249)	(3,925)
	₩ (88,092)	138,207	(29,162)	20,953

(4) Retained earnings

In accordance with the *Korea Development Bank Act,* the Bank is required to appropriate at least 40% of net income as a legal reserve. This reserve can be transferred to paid-in capital or offset an accumulated deficit.

In accordance with the *Korea Development Bank Act*, the Bank offsets an accumulated deficit with reserves. If the reserve is insufficient to offset the accumulated deficit, the Korean government is responsible for the deficit.

24. Equity, Continued

(i) Retained earnings as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Legal reserve	₩ 1,551,154	1,356,142
Voluntary reserve		
Regulatory reserve for loan losses	482,885	1,146,038
Unappropriated retained earnings	5,216,992	2,565,852
	₩ 7,251,031	5,068,032

(ii) Changes in legal reserve for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Beginning balance	₩ 1,356,142	1,177,851
Transfer from retained earnings	195,012	178,291
Ending balance	₩ 1,551,154	1,356,142

(iii) Changes in unappropriated retained earnings for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Beginning balance	₩ 2,565,852	2,327,769
Contribution to legal reserve	(195,012)	(178,291)
Transfer from regulatory reserve for credit losses	663,153	81,662
Dividends	(209,638)	(111,978)
Reclassification of gain or loss on equity securities measured at FVOCI	15,029	(64,962)
Profit for the period	2,377,608	369,343
Ending balance	₩ 5,216,992	2,423,543

(5) Regulatory reserve for credit losses

The Bank is required to provide a regulatory reserve for credit losses in accordance with *Regulations on Supervision of Banking Business 29(1) and (2)*. The details of regulatory reserve for credit losses are as follows:

(i) Regulatory reserve for credit losses as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Beginning balance	₩ 482,885	1,146,038
Planned provision for (reversal of) regulatory reserve for credit losses	76,926	(663,153)
Ending balance	₩ 559,811	482,885

24. Equity, Continued

(ii) Required reversal of regulatory reserve for credit losses and profit (loss) after adjusting regulatory reserve for loan losses for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Profit for the period	₩ 922,929	2,377,608	770,078	369,343
Obligated amount of reversal of (provision for) regulatory reserve for credit losses	158,709	(76,926)	91,751	35,030
Profit after adjusting regulatory reserve for credit losses	₩ 1,081,638	2,300,682	861,829	404,373
Earnings per share after adjusting regulatory reserve for credit losses (in won)	₩ 252	540	226	107

25. Net Interest Income

Net interest income for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Interest income:				
Due from banks	₩ 6,289	13,234	20,566	39,070
Securities measured at FVTPL	7,916	13,724	5,647	15,246
Securities measured at FVOCI	84,687	169,696	103,114	194,100
Securities measured at amortized cost	4,742	7,464	3,623	9,590
Loans measured at FVTPL	5,635	9,703	10,789	14,803
Loans measured at amortized cost	890,083	1,779,435	1,026,821	2,080,301
	999,352	1,993,256	1,170,560	2,353,110
Interest expense:				
Financial liabilities measured at FVTPL	(20,204)	(38,721)	(20,458)	(43,103)
Deposits	(83,906)	(167,904)	(144,234)	(281,609)
Borrowings	(31,116)	(62,883)	(81,612)	(179,772)
Debentures	(457,558)	(936,838)	(607,476)	(1,267,363)
	(592,784)	(1,206,346)	(853,780)	(1,771,847)
	₩ 406,568	786,910	316,780	581,263

26. Net Fees and Commission Income

Net fees and commission income for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Fees and commission income:				
Loan commissions	₩ 29,142	58,413	31,037	63,836
Underwriting and investment consulting commissions	26,644	48,470	22,767	46,297
Brokerage and agency commissions	1,935	3,388	2,056	3,539
Trust and retirement pension plan commissions	8,879	17,553	8,235	17,109
Fees on asset management	662	1,156	445	805
Other fees	24,333	54,759	20,433	47,339
	91,595	183,739	84,973	178,925
Fees and commission expenses:				
Brokerage and agency fees	(1,963)	(3,509)	(2,362)	(4,723)
Other fees	(5,704)	(11,962)	(5,450)	(11,356)
	(7,667)	(15,471)	(7,812)	(16,079)
	₩ 83,928	168,268	77,161	162,846

27. Dividend Income

Dividend income for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Securities measured at FVTPL	₩ 34,329	67,101	66,316	93,036
Securities measured at FVOCI	1,939	112,366	1,820	122,994
Investments in subsidiaries and associates	74,799	463,132	72,280	184,575
	₩ 111,067	642,599	140,416	400,605

28. Net Gain on Securities Measured at FVTPL

Net gain related to securities measured at FVTPL for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Gains on securities measured at FVTPL:				
Gains on sale	₩ 11,391	18,214	16,945	62,626
Gains on valuation	58,803	125,947	61,157	112,471
	70,194	144,161	78,102	175,097
Losses on securities measured at FVTPL:				
Losses on sale	(13,413)	(23,496)	(9,414)	(27,304)
Losses on valuation	(50,943)	(124,433)	(24,593)	(80,576)
Purchase related expense	(117)	(119)	(5)	(39)
	(64,473)	(148,048)	(34,012)	(107,919)
	₩ 5,721	(3,887)	44,090	67,178

29. Net Gain (Loss) on Financial Liabilities Measured at FVTPL

Net gain (loss) related to financial liabilities designated at fair value through profit or loss ("FVTPL") for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Gains on financial liabilities measured at FVTPL:				
Gains on redemption	₩ —	—	—	96
Gains on valuation	28,365	106,413	(9,326)	4,459
	28,365	106,413	(9,326)	4,555
Losses on financial liabilities measured at FVTPL:				
Losses on redemption	—	(309)	(3,506)	(6,101)
Losses on valuation	112	—	(15,967)	(26,953)
	112	(309)	(19,473)	(33,054)
	₩ 28,477	106,104	(28,799)	(28,499)

30. Net Gain (Loss) on Securities Measured at FVOCI

Net gain (loss) related to securities measured at FVOCI for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Gains on securities measured at FVOCI:				
Gains on sale	₩ 2,549	7,794	36,918	67,134
Reversal of impairment losses	(175)	—	—	—
	2,374	7,794	36,918	67,134
Losses on securities measured at FVOCI:				
Losses on sale	(6,574)	(14,757)	(1,211)	(7,252)
Impairment losses	(2,262)	(2,927)	(2,278)	(7,869)
	(8,836)	(17,684)	(3,489)	(15,121)
	₩ (6,462)	(9,890)	33,429	52,013

31. Net Gain (Loss) on Derivatives

Net gain (loss) on derivatives for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Net gain (loss) on trading purpose derivatives:				
Gains on trading purpose derivatives:				
Interest	₩ 350,922	1,391,147	501,482	1,703,007
Currency	983,473	5,529,736	6,433	7,660,733
Stock	2,243	4,140	9,613	21,875
Gains on adjustment of derivatives	(246)	2,939	(25)	1,461
	1,336,392	6,927,962	517,503	9,387,076
Losses on trading purpose derivatives:				
Interest	(357,110)	(1,401,176)	(470,199)	(1,772,695)
Currency	(1,013,039)	(5,339,116)	(115,102)	(7,397,381)
Stock	(1,216)	(3,270)	(863)	(15,929)
Losses on adjustment of derivatives	(10,379)	(18,911)	22,339	(30,049)
	(1,381,744)	(6,762,473)	(563,825)	(9,216,054)
	(45,352)	165,489	(46,322)	171,022
Net gain (loss) on hedging purpose derivatives:				
Gains on hedging purpose derivatives:				
Interest	(4,169)	8,306	77,446	609,865
Currency	81,548	183,844	89,899	143,339
Gains on adjustment of derivatives	(37)	181	(61)	36
	77,342	192,331	167,284	753,240

31. Net Gain (Loss) on Derivatives, Continued

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Losses on hedging purpose derivatives:				
Interest	₩ (27,355)	(347,618)	(9,361)	(54,285)
Currency	97,512	(342,458)	105,723	(456,560)
Losses on adjustment of derivatives	(140)	(245)	(179)	(394)
	70,017	(690,321)	96,183	(511,239)
	147,359	(497,990)	263,467	242,001
Net gain (loss) on fair value hedged items:				
Gains on fair value hedged items:				
Gains on valuation	(61,894)	424,743	(120,631)	292,534
Gains on redemption	22,681	99,671	138,970	171,820
	(39,213)	524,414	18,339	464,354
Losses on fair value hedged items:				
Losses on valuation	(65,111)	(217,629)	(75,028)	(907,902)
Losses on redemption	(28,065)	(105,366)	(43,422)	(48,496)
	(93,176)	(322,995)	(118,450)	(956,398)
	(132,389)	201,419	(100,111)	(492,044)
	₩ (30,382)	(131,082)	117,034	(79,021)

Related with cash flow hedge, the Bank recognized ₩56 million of gain and ₩60 million of loss in the statement of comprehensive income as the ineffective portion for the period ended June 30, 2021 and 2020, respectively.

32. Net Gain on Foreign Currency Transaction

Net gain on foreign currency transaction for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Net gain (loss) on foreign exchange transactions:				
Gains on foreign exchange transactions	₩ 112,166	245,413	180,378	346,058
Losses on foreign exchange transactions	(117,936)	(256,133)	(180,514)	(346,384)
	(5,770)	(10,720)	(136)	(326)
Net gain on foreign exchange translations:				
Gains on foreign exchange translations	425,213	3,760,632	(16,068)	4,086,100
Losses on foreign exchange translations	(385,863)	(3,641,192)	37,269	(3,871,553)
	39,350	119,440	21,201	214,547
	₩ 33,580	108,720	21,065	214,221

33. Other Operating Expense, net

Other operating income and expense for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Other operating income:				
Gains on sale of loans	₩ 31,927	60,323	7,422	7,959
Gains on disposal of loans measured at FVTPL	1,820,467	1,832,631	1,171	2,678
Gains on valuation of loans measured at FVTPL	(830,230)	121,556	43,623	62,057
Gains on disposal of investments in subsidiaries and associates	72,508	78,121	10,963	10,963
Reversal of provisions	398	1,580	33	353
Others	5,542	8,977	5,833	9,129
	1,100,612	2,103,188	69,045	93,139
Other operating expenses:				
Losses on sale of loans	(27,798)	(27,798)	(46,718)	(49,742)
Losses on disposal of loans measured at FVTPL	(3,494)	(4,461)	(13,948)	(17,188)
Losses on valuation of loans measured at FVTPL	(1,111)	(4,899)	(1,407)	(6,719)
Losses on disposal of investments in subsidiaries and associates	—	(575)	(339)	(340)
Increase of provisions	178	(1,492)	(31)	(84)
Insurance expenses	(18,265)	(35,796)	(15,929)	(29,441)
Credit guarantee fund salary	(46,894)	(94,207)	(42,807)	(79,792)
Educational taxes	(11,407)	(24,310)	(14,314)	(21,680)
Foreign security contributions	(22)	(1,939)	(2,972)	(4,878)
Others	(1,989)	(7,233)	(3,293)	(7,584)
	(110,802)	(202,710)	(141,758)	(217,448)
	₩ 989,810	1,900,478	(72,713)	(124,309)

34. Provision for Credit Losses

Provision for credit losses for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Provision for loss allowance for loan	₩ 838,872	928,606	139,199	338,691
Provision for loss allowance for other assets	1,791	5,077	417	1,681
Provision for (reversal of) unused commitments	24,131	(22,477)	44,395	(8,568)
Provision for (reversal of) financial guarantee	7,107	(28,054)	37,259	40,833
Provision for (reversal of) payment guarantees	29,858	(47,063)	(118,442)	(167,940)
	₩ 901,759	836,089	102,828	204,697

35. General and Administrative Expenses

General and administrative expenses for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Payroll costs:				
Short-term employee benefits	₩ 82,114	174,264	80,253	170,344
Defined benefit costs	9,988	19,974	9,616	19,238
Defined contribution costs	340	937	836	2,648
	92,442	195,175	90,705	192,230
Depreciation and amortization:				
Depreciation of property and equipment	17,899	36,874	16,403	33,971
Amortization of intangible assets	13,368	26,623	13,514	27,212
	31,267	63,497	29,917	61,183
Other:				
Employee welfare benefits	9,118	17,356	8,291	16,125
Rent expenses	1,518	3,337	1,624	3,449
Taxes and dues	5,198	12,808	4,446	13,118
Advertising expenses	3,127	4,825	3,080	4,933
Electronic data processing expenses	20,496	41,084	19,322	32,477
Fees and charges	8,272	17,364	9,142	15,625
Others	7,289	14,270	5,531	13,561
	55,018	111,044	51,436	99,288
	₩ 178,727	369,716	172,058	352,701

36. Other Non-Operating Income and Expense

Other non-operating income and expense for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Other non-operating income:				
Gains on disposal of assets held for sale	₩ —	3,610	—	—
Reversal of impairment losses on assets held for sale	446,451	499,976	—	—
Gains on disposal of property and equipment	1,260	3,391	537	604
Rental income on investment property	122	246	156	362
Others	372	1,721	170	1,574
	448,205	508,944	863	2,540

36. Other Non-Operating Income and Expense, Continued

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Other non-operating expenses:				
Impairment losses on assets held for sale	₩ —	—	808,796	(46,775)
Losses on disposal of property and equipment	(59)	(171)	—	—
Depreciation of investment property	(625)	(1,246)	(43)	(604)
Donations	(132)	(257)	(166)	(678)
Others	71	(4,337)	(896)	(3,724)
	(745)	(6,011)	807,691	(51,781)
	₩ 447,460	502,933	808,554	(49,241)

37. Income Tax Expense

(1) Income tax expense for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Current income tax(*)	₩ (224,351)	(193,242)	(102,571)	135,808
Changes in deferred income taxes on temporary differences	1,587,891	3,102,476	483,781	(26,837)
Deferred income tax recognized directly to equity				
Other comprehensive income	(1,159,765)	(2,289,546)	(147,448)	(29,162)
Retained earnings	(5,089)	(5,700)	22,903	24,641
Income tax expense	₩ 198,686	613,988	256,665	104,450

(*) Includes changes such as those that arise from final tax returns.

(2) Profit before income taxes and income tax expense for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Profit before income taxes	₩ 2,991,596	473,793
Income taxes calculated using enacted tax rates	822,689	130,293
Adjustments:		
Non-deductible losses and tax-free gains	(47,172)	(15,159)
Non-recognition effect of deferred income taxes and others	(130,608)	(16,101)
Net adjustments for prior years	(34,033)	1,100
Others	3,112	4,317
	(208,701)	(25,843)
Income tax expense	₩ 613,988	104,450
Effective tax rate (%)	20.52	22.05

37. Income Tax Expense, Continued

(3) Changes in deferred income taxes recognized directly to equity for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021				
	June 30, 2021		January 1, 2021		
	Amounts before tax	Tax effect	Amounts before tax	Tax effect	Changes in tax effect
Net gain (loss) on securities measured at FVOCI	₩ 8,138,846	(3,087,148)	2,079,878	(788,919)	(2,298,229)
Exchange differences on translation of foreign operations	(19,032)	—	(60,912)	—	—
Net gain (loss) on valuation of cash flow hedge	691	(262)	34	(13)	(249)
Net gain on hedges of net investments in foreign operations	11,544	(4,379)	35,507	(13,468)	9,089
Remeasurements of defined benefit liabilities	15,634	(5,928)	15,634	(5,928)	—
Fair value changes on financial liabilities designated at fair value due to credit risk	(5,356)	2,032	(5,770)	2,189	(157)
	₩ 8,142,327	(3,095,685)	2,064,371	(806,139)	(2,289,546)

Income tax benefit recognized direct to retained earnings amounting to ₩5,700 million is the tax effect of realized income amounting to ₩20,729 million from disposal of equity securities measured at FVOCI.

	2020				
	June 30, 2020		January 1, 2020		
	Amounts before tax	Tax effect	Amounts before tax	Tax effect	Changes in tax effect
Net gain (loss) on securities measured at FVOCI	₩ (4,058)	1,540	(99,406)	37,706	(36,166)
Exchange differences on translation of foreign operations	25,002	—	(7,158)	—	—
Losses on valuation of cash flow hedge	(57)	22	(292)	111	(89)
Net gain on hedges of net investments in foreign operations	(15,340)	5,819	4,015	(1,523)	7,342
Remeasurements of defined benefit liabilities	19,331	(7,331)	19,331	(7,331)	—
Fair value changes on financial liabilities designated at fair value due to credit risk	(3,925)	1,489	(4,582)	1,738	(249)
	₩ 20,953	1,539	(88,092)	30,701	(29,162)

Income tax expense recognized direct to retained earnings amounting to ₩24,641 million is the tax effect of realized loss amounting to ₩89,603 million from disposal of equity securities measured at FVOCI.

38. Earnings per Share

(1) Basic earnings per share

The Bank's basic earnings per share for the three-month and six-month periods ended June 30, 2021 and 2020 are computed as follows:

(i) Basic earnings per share

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Profit attributable to ordinary shareholders of the Bank (A) (in won)	₩ 922,930,059,256	2,377,608,342,739	770,077,848,944	369,342,875,100
Weighted-average number of ordinary shares outstanding (B)	4,295,420,273	4,260,178,807	3,820,739,548	3,776,679,658
Basic earnings per share (A/B) (in won)	₩ 215	558	202	98

(ii) Weighted-average number of ordinary shares outstanding

	2021		
	Number of ordinary shares	Days	Cumulative shares
Three-month period ended:			
Number of ordinary shares outstanding (A)	4,153,145,768	91	377,936,264,888
Increased paid-in capital (B)	102,000,000	91	9,282,000,000
Increased paid-in capital (C)	122,166,000	30	3,664,980,000
Cumulative shares (D = A+B+C)			390,883,244,888
Weighted-average number of ordinary shares outstanding (D/91)			4,295,420,273
Six-month period ended:			
Number of ordinary shares outstanding (A)	4,153,145,768	181	751,719,384,008
Increased paid-in capital (B)	102,000,000	154	15,708,000,000
Increased paid-in capital (C)	122,166,000	30	3,664,980,000
Cumulative shares (D = A+B+C)			771,092,364,008
Weighted-average number of ordinary shares outstanding (D/181)			4,260,178,807

38. Earnings per Share, Continued

	2020		
	Number of ordinary shares	Days	Cumulative shares
Three-month period ended:			
Number of ordinary shares outstanding (A)	3,732,619,768	91	339,668,398,888
Increased paid-in capital (B)	90,100,000	89	8,018,900,000
Cumulative shares (C = A+B)			347,687,298,888
Weighted-average number of ordinary shares outstanding (C/91)			3,820,739,548
Six-month period ended:			
Number of ordinary shares outstanding (A)	3,732,619,768	182	679,336,797,776
Increased paid-in capital (B)	90,100,000	89	8,018,900,000
Cumulative shares (C = A+B)			687,355,697,776
Weighted-average number of ordinary shares outstanding (C/182)			3,776,679,658

(2) Diluted earnings per share

Diluted and basic earnings per share for the three-month and six-month periods ended June 30, 2021 and 2020 are equal because there is no potential dilutive instrument.

39. Pledged Assets

Assets pledged by the Bank as collateral as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		December 31, 2020	
	Pledged assets	Related liabilities	Pledged assets	Related liabilities
Securities measured at FVOCI(*)	₩ 3,646,158	2,429,469	5,701,903	2,249,385
Securities measured at amortized cost(*)	1,432,377		313,631	
	₩ 5,078,535	2,429,469	6,015,534	2,249,385

(*) Pledged as collateral related to bonds sold under repurchase agreements and borrowings.

40. Guarantees and Commitments

Guarantees and commitments as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Confirmed acceptances and guarantees:		
Acceptances in foreign currency	₩ 332,372	408,155
Guarantees for bond issuance	2,424,483	2,281,329
Guarantees for loans	522,378	485,483
Letter of guarantee	88,711	42,965
Guarantees for on-lending debt	9,202	11,127
Others	3,695,542	3,734,283
	7,072,688	6,963,342
Unconfirmed acceptances and guarantees:		
Letter of credit	2,194,279	1,252,411
Others	3,079,299	1,882,381
	5,273,578	3,134,792
Commitments:		
Commitments on loans	42,376,831	42,787,113
Others	2,078,318	2,075,621
	44,455,149	44,862,734
Bills endorsed:		
With recourse	—	971
	₩ 56,801,415	54,961,839

41. Trust Accounts

(1) Trust accounts as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Accrued trust fee	₩ 13,667	8,010
Borrowings from trust accounts	1,415,518	906,843
Accrued expense	884	909

(2) Transactions with trust accounts for the three-month and six-month periods ended June 30, 2021 and 2020 are as follows:

	June 30, 2021		June 30, 2020	
	Three-month period ended	Six-month period ended	Three-month period ended	Six-month period ended
Trust management fee	₩ 8,223	16,077	7,648	15,714
Interest expenses on deposits	—	—	(1)	(3)
Interest expenses of borrowings from trust accounts	(1,459)	(2,715)	(1,475)	(5,314)

41. Trust Accounts, Continued

(3) The carrying amounts of principals guaranteed trust and principals and interest guaranteed trust as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Principals guaranteed trust	₩ 243,714	251,006
Principals and interest guaranteed trust	236,651	238,320
	₩ 480,365	489,326
Principal of money and property trust	₩ 443,217	450,445
Accrued trust profit	37,148	38,881

42. Related Party Transactions

(1) The Bank's related parties as of June 30, 2021 are as follows:

Classification	Corporate name
Subsidiaries	KDB Capital Corporation, Daewoo Shipbuilding & Marine Engineering Co., Ltd., KDB Infrastructure Investment Asset Management Co., Ltd., KDB Asia Ltd., KDB Ireland Ltd., KDB Bank Europe Ltd., Banco KDB Do Brazil S.A., KDB Bank Uzbekistan, KDB Indonesia and 9 others, KDB Investment PEF No. 1, KDB Value PEF VII, KDB Consus Value PEF, Components and Materials M&A PEF and 4 others, Principals guaranteed trust accounts of KDB, Principals and interests guaranteed interest trust accounts of KDB, UBest 5th Securitization Specialty Co., Ltd. and 6 others, KIAMCO Road Investment Private Fund Special Asset Trust 2 and 22 others
Associates	Korea Electric Power Co., Ltd., Korea Tourism Organization, KOREA REAL ESTATE BOARD, GM Korea Company, HMM Co., Ltd., Hanjin Heavy Industries & Construction Co., Ltd., HANJIN KAL, Korea Ocean Business Corporation and 76 others, Troika Resources Investment PEF and 99 others, KIP Overseas Expansion Platform Fund and 114 others
Others	Key management personnel

42. Related Party Transactions, Continued

(2) Significant balances with related parties as of June 30, 2021 and December 31, 2020 are as follows:

	Account	June 30, 2021	December 31, 2020
Subsidiaries:			
KDB Capital Corporation	Loans	₩ 5,669	7,188
	Allowance for loan losses	(2)	(3)
	Derivative financial assets	665	293
	Other assets	5	7
	Deposits	588	2,762
	Derivative financial liabilities	618	3,756
	Other liabilities	35,304	35,513
KDB Infrastructure Investment Asset Management Co., Ltd.	Deposits	8,873	17,767
	Other liabilities	86	162
KDB Ireland Ltd.	Loans	402,558	358,393
	Allowance for loan losses	(105)	(94)
	Derivative financial assets	7,376	9,673
	Other assets	136	179
KDB Bank Europe Ltd.	Cash and due from banks	298,433	264,697
	Derivative financial assets	439	552
	Other assets	—	47
	Derivative financial liabilities	—	278
	Other liabilities	849	762
Banco KDB Do Brazil S.A.	Cash and due from banks	79,100	48,960
	Loans	155,375	60,384
	Allowance for loan losses	(53)	(30)
	Other assets	241	85
KDB Indonesia Ltd.	Loans	22,600	21,760
	Allowance for loan losses	(6)	(6)
	Other assets	11	12
KDB Asia Ltd.	Cash and due from banks	1,152,600	783,360
	Loans	45,200	261,120
	Allowance for loan losses	(12)	(68)
	Derivative financial assets	—	1,051
	Other assets	931	825
	Deposits	2	2
	Borrowings	21,163	10,736
	Derivative financial liabilities	739	370
	Other liabilities	14	23
KDB Investment PEF No.1	Loans	633,900	732,640
	Allowance for loan losses	(2,780)	(3,443)
	Derivative financial assets	2,423	3,109
	Other assets	9,725	8,985

42. Related Party Transactions, Continued

	Account	June 30, 2021	December 31, 2020
	Allowance of other assets	₩ (34)	(35)
	Deposits	8,543	4,553
	Derivative financial liabilities	206	585
	Other liabilities	885	31
	Other provisions	1,510	1,003
KDB Consus Value PEF	Securities	40,686	40,857
	Derivative financial assets	2,096	243
	Other assets	345	345
	Deposits	116	104
	Derivative financial liabilities	4,517	9,923
	Other liabilities	705	703
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Loans	1,358,035	1,322,265
	Allowance for loan losses	(604,419)	(437,867)
	Derivative financial assets	43,107	6,533
	Other assets	3,334	3,406
	Deposits	508,392	593,439
	Derivative financial liabilities	40,230	153,516
	Other liabilities	9,243	238,642
	Other provisions	656,737	769,944
Corporate Liquidity Assistance Agency Co., Ltd.	Loans	440,000	220,000
	Allowance for loan losses	(128)	(64)
	Other assets	14,142	4,452
	Allowance of other assets	(4)	(1)
	Deposits	1,421,848	696,350
	Other liabilities	186	90
	Other provisions	120	168
Others	Loans	846,347	1,032,466
	Allowance for loan losses	(330,543)	(368,449)
	Derivative financial assets	905	738
	Other assets	16,959	13,142
	Allowance of other assets	(6,848)	(5,190)
	Deposits	104,971	86,364
	Borrowings	—	42,527
	Derivative financial liabilities	6,388	25,090
	Other liabilities	865	15,675
	Other provisions	237,884	170,380

42. Related Party Transactions, Continued

	Account	June 30, 2021	December 31, 2020
Associates:			
Korea Electric Power Co., Ltd.	Securities	₩ 28,003	5,779
	Loans	91,906	197,539
	Allowances for loan losses	(1,590)	(1,778)
	Derivative financial assets	36,036	80,203
	Other assets	11,323	20,631
	Deposits	61,863	135,837
	Borrowings	22,871	53,107
	Derivative financial liabilities	78,001	41,212
	Other liabilities	994	10,599
	Other provisions	27	10
KG Dongbu Steel Co., Ltd.	Loans	666,671	614,062
	Allowances for loan losses	(3,199)	(55,321)
	Other assets	109,785	622
	Deposits	23,962	3,871
	Other liabilities	165	129
	Other provisions	917	15,320
HMM Co., Ltd.	Securities	11,928,326	3,866,467
	Loans	200,571	1,040,638
	Allowances for loan losses	(31,476)	(93,017)
	Other assets	15,009	7,302
	Deposits	1,209,097	440,127
	Other liabilities	7,877	2,536
	Other provisions	4,126	8,200
Hanjin Heavy Industries & Construction Co., Ltd.	Loans	215,887	213,052
	Allowances for loan losses	(2,228)	—
	Other assets	440	—
	Deposits	53,957	110,914
	Other liabilities	1,055	1,464
	Other provisions	121,804	128,819
HANJIN KAL	Securities	—	20,098
	Loans	490,273	390,902
	Other assets	1,073	616
Korea Ocean Business Corporation	Loans	15,292	15,464
	Allowances for loan losses	(1)	(1)
	Other assets	16	17
	Other liabilities	59	4

42. Related Party Transactions, Continued

	Account	June 30, 2021	December 31, 2020
Others	Securities	₩ 665	—
	Loans	800,538	803,266
	Allowances for loan losses	(353,742)	(355,141)
	Other assets	6,530	6,390
	Deposits	577,292	439,113
	Other liabilities	1,566	2,169
	Other provisions	45,952	60,070

(3) Significant profit or loss with related parties for the six-month periods ended June 30, 2021 and 2020 are as follows:

	Account	2021	2020
Subsidiaries:			
KDB Capital Corporation	Interest income	₩ 52	71
	Dividend income	27,956	42,866
	Reversal of allowance for loan losses	1	3
	Fees and commission income, other income	3,214	3,895
	Interest expenses	(206)	(4)
	Other operating expenses	(435)	(2,554)
KDB Infrastructure Investments Asset Management Co., Ltd.	Dividend income	9,089	12,287
	Interest expenses	(67)	(236)
KDB Ireland Ltd.	Interest income	625	2,596
	Fees and commission income, other income	2,730	9,054
	Interest expenses	—	(3)
	Provision for loan losses	(8)	(6)
	Other operating expenses	(3,334)	(1,743)
KDB Bank Europe Ltd.	Interest income	494	3,458
	Reversal of allowance for loan losses	—	2
	Fees and commission income, other income	174	136
	Other operating expenses	(206)	(135)
Banco KDB Do Brazil S.A.	Interest income	485	1,954
	Provision for loan losses	(22)	(3)
KDB Indonesia Ltd.	Interest income	81	—
KDB Asia Ltd.	Interest income	4,011	8,140
	Reversal of allowance for loan losses	59	19
	Fees and commission income, other income	836	2,273
	Interest expenses	(31)	(26)
	Other operating expenses	(2,440)	(1,376)

42. Related Party Transactions, Continued

	Account	2021	2020
KDB Investment PEF No.1	Interest income	₩ 12,247	15,746
	Fees and commission income, other income	865	3,252
	Interest expenses	(14)	(363)
	Provision for loan losses	(672)	—
	Other operating expenses	(1,233)	(6,714)
KDB Consus Value PEF	Interest income	799	799
	Fees and commission income, other income	10,626	13,935
	Interest expenses	(3)	(6)
	Other operating expenses	(1,102)	(298)
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Interest income	13,571	18,170
	Fees and commission income, other income	339,490	411,520
	Interest expenses	(2,406)	(3,149)
	Provision for loan losses	(150,506)	(62,212)
	Other operating expenses	(55,394)	(85,935)
Corporate Liquidity Assistance Agency Co., Ltd.	Interest income	9,690	—
	Fees and commission income, other income	47	—
	Interest expenses	(4,440)	—
	Provision for loan losses	(64)	—
	Other operating expenses	(3)	—
Others	Interest income	22,179	16,646
	Dividend income	25,810	64,423
	Reversal of allowance for loan losses	87,817	44,692
	Fees and commission income, other income	140,915	118,211
	Interest expenses	(310)	(581)
	Provision for loan losses	(27,259)	(31,095)
	Other operating expenses	(187,981)	(88,673)
Associates:			
Korea Electric Power Co., Ltd.	Interest income	1,397	2,586
	Dividend income	256,862	—
	Reversal of allowance for loan losses	188	—
	Fees and commission income, other income	8,441	18,767
	Interest expenses	(505)	(1,385)
	Provision for loan losses	—	(22)
	Other operating expenses	(116,233)	(133,154)

42. Related Party Transactions, Continued

	Account	2021	2020
KG Dongbu Steel Co., Ltd.	Interest income	₩ 5,851	11,959
	Dividend income	1,101	—
	Reversal of allowance for loan losses	52,122	93,914
	Fees and commission income, other income	18,964	37,739
	Interest expenses	(7)	(20)
	Other operating expenses	(3,553)	(7,278)
HMM Co., Ltd.	Interest income	22,171	18,828
	Reversal of allowance for loan losses	61,540	3,541
	Fees and commission income, other income	1,824,314	53,975
	Interest expenses	(1,262)	(1,129)
	Other operating expenses	(16,505)	(8,786)
Hanjin Heavy Industries & Construction Co., Ltd.	Interest income	2,735	3,093
	Fees and commission income, other income	22,267	4,408
	Interest expenses	(118)	(193)
	Provision for loan losses	(2,228)	(8)
	Other operating expenses	(12,273)	(1,694)
HANJIN KAL	Interest income	3,610	—
	Fees and commission income, other income	99,421	—
Korea Ocean Business Corporation	Interest income	108	253
	Fees and commission income, other income	593	678
	Interest expenses	(59)	—
	Other operating expenses	—	(1)
Others	Interest income	6,255	6,127
	Dividend income	163,508	78,637
	Reversal of allowance for loan losses	2,722	1,604
	Fees and commission income, other income	28,231	46,573
	Interest expenses	(961)	(2,423)
	Provision for loan losses	(801)	(5,339)
	Other operating expenses	(8,980)	(11,778)

42. Related Party Transactions, Continued

(4) Details of guarantees and commitments to the related parties as of June 30, 2021 and December 31, 2020 are as follows:

	Account	June 30, 2021	December 31, 2020
Subsidiaries:			
KDB Capital Corporation	Commitments	₩ 320,000	320,000
KDB Investment PEF No.1	Unconfirmed acceptances and guarantees	6,933	7,854
	Commitments	404,667	298,706
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Confirmed acceptances and guarantees	1,160,689	1,226,351
	Unconfirmed acceptances and guarantees	1,069,548	557,377
	Commitments	4,846,495	5,084,798
Corporate Liquidity Assistance Agency Co., Ltd.	Commitments	560,000	780,000
Others	Confirmed acceptances and guarantees	296,935	337,604
	Unconfirmed acceptances and guarantees	254,585	175,716
	Commitments	65,000	178,200
Associates:			
KG Dongbu Steel Co., Ltd.	Confirmed acceptances and guarantees	1,704	—
	Unconfirmed acceptances and guarantees	78,386	20,265
	Commitments	239,473	339,823
HMM Co., Ltd.	Confirmed acceptances and guarantees	13,560	13,056
Hanjin Heavy Industries & Construction Co., Ltd.	Confirmed acceptances and guarantees	347,886	414,630
	Unconfirmed acceptances and guarantees	3,359	3,337
	Commitments	91,080	22,614
Others	Confirmed acceptances and guarantees	53,075	76,628
	Unconfirmed acceptances and guarantees	53,973	28,431
	Commitments	332,894	244,384
		₩ 10,200,242	10,129,774

42. Related Party Transactions, Continued

(5) Details of compensation to key management personnel for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Short-term employee benefits	₩ 337	330
Post-employment benefits	3	—
	₩ 340	330

(6) The Bank are not pledged any assets as collaterals to the related parties and from the related parties as of June 30, 2021 and December 31, 2020.

43. Statements of Cash Flows

(1) Cash and cash equivalents in the separate statements of cash flows as of June 30, 2021 and 2020 are as follows:

	June 30, 2021	June 30, 2020
Cash and due from banks:		
Cash and foreign currencies	₩ 53,847	59,917
Due from banks in Korean won	4,739,491	4,854,243
Due from banks in foreign currencies	6,475,917	7,531,806
	11,269,255	12,445,966
Less: Restricted due from banks, others	(6,075,890)	(6,123,060)
Add: Financial instruments reaching maturity within three months from date of acquisition		
Loans measured at amortized cost:		
Call-loans	1,564,172	1,234,328
Inter-bank loans	1,302,509	1,071,172
	2,866,681	2,305,500
	₩ 8,060,046	8,628,406

(2) Significant transactions not involving cash flows for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Decrease in loans due to write-offs	₩ 20,000	122,638
Increase in securities measured at FVOCI due to debt-to-equity swap	81,364	13,513
Increase in investments in subsidiaries and associates due to debt-to-equity swap	2,658,000	750
Increase in accumulated other comprehensive income due to securities valuation	8,357,197	131,514
Deferred income tax effect due to securities valuation	(2,298,229)	(36,166)
Transfer from investment property to property and equipment	—	1,655

43. Statements of Cash Flows, Continued

Transfer from property and equipment to investment property	1,494	—
Recognition of right-of-use assets and lease liabilities	26,866	16,171

44. Transfers of Financial Instruments

Details of financial assets and liabilities related to repurchase agreements and loaned securities that do not qualify for derecognition as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		December 31, 2020	
Characteristics of transactions	Carrying amounts for transferred assets	Carrying amounts for related liabilities	Carrying amounts for transferred assets	Carrying amounts for related liabilities
Repurchase agreements	₩ 1,974,244	2,041,640	2,762,065	1,875,504
Loaned securities	859,161	—	289,806	—
	₩ 2,833,405	2,041,640	3,051,871	1,875,504

45. Fair Value of Financial Assets and Liabilities

The Bank classifies and discloses fair value of the financial instruments into the following three-level hierarchy:

- Level 1: Financial instruments measured at quoted prices from active markets are classified as level 1.
- Level 2: Financial instruments measured using valuation techniques where all significant inputs are observable market data are classified as level 2.
- Level 3: Financial instruments measured using valuation techniques where one or more significant inputs are not based on observable market data are classified as level 3.

45. Fair Value of Financial Assets and Liabilities, Continued

(1) Fair value hierarchy of financial instruments measured at fair value

(i) The fair value hierarchy of financial instruments measured at fair value as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Securities measured at FVTPL	₩ 1,574,273	1,415,111	7,283,388	10,272,772
Securities measured at FVOCI	2,155,521	16,685,193	23,169,792	42,010,506
Loans measured at FVTPL	—	—	701,288	701,288
Derivative financial assets	179	5,137,525	8,417	5,146,121
	₩ 3,729,973	23,237,829	31,162,885	58,130,687
Financial liabilities:				
Financial liabilities designated at FVTPL	₩ —	1,892,708	—	1,892,708
Derivative financial liabilities	217	3,647,605	5,351	3,653,173
	₩ 217	5,540,313	5,351	5,545,881

	December 31, 2020			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Securities measured at FVTPL	₩ 1,023,738	1,064,829	6,232,064	8,320,631
Securities measured at FVOCI	2,439,145	17,067,639	14,634,541	34,141,325
Loans measured at FVTPL	—	—	1,434,514	1,434,514
Derivative financial assets	—	8,321,162	8,214	8,329,376
	₩ 3,462,883	26,453,630	22,309,333	52,225,846
Financial liabilities:				
Financial liabilities designated at FVTPL	₩ —	1,694,957	—	1,694,957
Derivative financial liabilities	—	6,298,836	6,451	6,305,287
	₩ —	7,993,793	6,451	8,000,244

45. Fair Value of Financial Assets and Liabilities, Continued

(ii) Changes in the fair value of level 3 financial instruments for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021					
	Financial assets					Financial liabilities
	Securities measured at FVTPL	Securities measured at FVOCI	Loans measured at FVTPL	Derivative financial assets	Total	Derivative financial liabilities
January 1, 2021	₩ 6,232,064	14,634,541	1,434,514	8,214	22,309,333	6,451
Profit or loss	21,782	—	116,657	203	138,642	(1,100)
Other comprehensive income	—	8,427,801	—	—	8,427,801	—
Acquisition / Issue	1,174,381	348,188	17,500	—	1,540,069	—
Sale / Settlement	(144,839)	(150,920)	(867,383)	—	(1,163,142)	—
Transfer out(*)	—	(89,818)	—	—	(89,818)	—
Transfer in(*)	—	—	—	—	—	—
June 30, 2021	₩ 7,283,388	23,169,792	701,288	8,417	31,162,885	5,351

	2020					
	Financial assets					Financial liabilities
	Securities measured at FVTPL	Securities measured at FVOCI	Loans measured at FVTPL	Derivative financial assets	Total	Derivative financial liabilities
January 1, 2020	₩ 4,804,158	10,865,012	604,380	10,007	16,283,557	75
Profit or loss	160,145	—	55,337	9,354	224,836	4,884
Other comprehensive income	—	82,366	—	—	82,366	—
Acquisition / Issue	1,303,693	829,765	13,000	—	2,146,458	—
Sale / Settlement	(202,197)	(109,021)	(121,694)	—	(432,912)	—
Transfer out(*)	(1,178)	(21,575)	—	—	(22,753)	—
Transfer in(*)	—	71,697	—	—	71,697	—
June 30, 2020	₩ 6,064,621	11,718,244	551,023	19,361	18,353,249	4,959

(*) When significant inputs become observable market data, the financial instruments are transferred to (from) other levels.

(iii) Changes in deferred day one profit or loss for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021	2020
Beginning balance	₩ 4,375	4,763
Amortization	(191)	(193)
Ending balance	₩ 4,184	4,570

45. Fair Value of Financial Assets and Liabilities, Continued

(iv) Details of valuation technique and inputs used in the fair value measurement categorized within level 2 of the fair value hierarchy of financial instruments measured at fair value as of June 30, 2021 and December 31, 2020 are as follows:

	Valuation technique	Input
Securities measured at FVTPL and financial assets held for trading:		
Equity securities	Net asset value approach	Underlying asset price
Debt securities	Discounted cash flow method	Discount rate
Securities measured at FVOCI and available-for-sale financial assets:		
Equity securities	Net asset value approach	Underlying asset price
Debt securities	Discounted cash flow method	Discount rate
Derivatives financial assets:		
Interest rate swaps	Discounted cash flow method,	Discount rate, exchange rate,
Currency forwards and swaps	Black-Scholes model, Modified	volatility, commodity index,
Currency options	Black model, Formula model	etc.
Commodities options		
Financial liabilities measured at FVTPL:		
Debentures	Discounted cash flow method	Discount rate

45. Fair Value of Financial Assets and Liabilities, Continued

(v) Details of valuation technique and quantitative information about unobservable inputs used in the fair value measurement categorized within level 3 of the fair value hierarchy of financial instruments measured at fair value as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021		
	Valuation technique	**Unobservable input**	**Range (%)**
Securities measured at FVTPL			
Equity securities	Discounted cash flow method, Relative value approach, Net asset value approach	Discount rate	6.49 ~ 13.68
		Rate of increase in liquidation value	—
		Rate of increase in property disposal price	—
		Volatility	14.35 ~ 37.31
Securities measured at FVOCI			
Equity securities	Discounted cash flow method, Relative value approach, Net asset value approach	Discount rate	7.38 ~ 18.72
		Growth rate	—
		Volatility	16.63 ~ 34.96
Loans measured at FVTPL			
Convertible bonds, etc.	Binomial model, LSMC	Volatility	14.35 ~37.31
Derivatives financial assets			
Interest rate swaps	Discounted cash flow	Volatility	38.89 ~ 49.27
		Correlation coefficient	0.74 ~ 0.80
Interest rate options	Modified Black model	Volatility	38.89 ~ 49.27
Stock index options	Black-Scholes model	Volatility	8.10 ~ 50.60
Equity options	Discounted cash flow method and others	Volatility	25.67 ~ 34.96

45. Fair Value of Financial Assets and Liabilities, Continued

	December 31, 2020		
	Valuation technique	Unobservable input	Range (%)
Securities measured at FVTPL			
Equity securities	Discounted cash flow method, Relative value approach, Net asset value approach	Discount rate	0.72 ~ 19.05
		Rate of increase in liquidation value	—
		Rate of increase in property disposal price	—
		Volatility	17.53 ~ 33.00
Securities measured at FVOCI			
Equity securities	Discounted cash flow method, Relative value approach, Net asset value approach	Discount rate	0.20 ~19.05
		Growth rate	—
		Volatility	18.49 ~ 26.45
Loans measured at FVTPL			
Convertible bonds, etc.	Binomial model	Volatility	17.53 ~ 32.59
Derivatives financial assets			
Interest rate swaps	Discounted cash flow	Volatility	36.02 ~ 44.87
		Correlation coefficient	0.83 ~ 0.91
Interest rate options	Modified Black model	Volatility	36.02 ~ 44.87
Stock index options	Black-Scholes model	Volatility	17.20 ~ 27.30
Equity options	Discounted cash flow method and others	Volatility	18.49 ~ 33.00

(vi) The sensitivity analysis on changes in unobservable inputs for financial instruments categorized within level 3 of the fair value hierarchy of financial instruments measured at fair value as of June 30, 2021 and December 31, 2020 is as follows:

	December 31, 2020			
	Profit(loss) for the year		Other comprehensive income(loss)	
	Favorable change	Unfavorable change	Favorable change	Unfavorable change
Securities measured at FVTPL(*1)	₩ 8,549	(6,903)	—	—
Securities measured at FVOCI(*1)	—	—	63,426	(97,729)
Loans measured at FVTPL(*2)	56,861	(54,828)	—	—
Derivative financial assets(*2)	4,244	(1,778)	—	—
	₩ 69,654	(63,509)	63,426	(97,729)

45. Fair Value of Financial Assets and Liabilities, Continued

	December 31, 2020			
	Profit(loss) for the year		Other comprehensive income(loss)	
	Favorable change	Unfavorable change	Favorable change	Unfavorable change
Securities measured at FVTPL(*1)	₩ 8,478	(7,355)	—	—
Securities measured at FVOCI(*1)	—	—	45,231	(75,780)
Loans measured at FVTPL(*2)	64,022	(28,054)	—	—
Derivative financial assets(*2)	4,364	(1,846)	—	—
	₩ 76,864	(37,255)	45,231	(75,780)

(*1) Sensitivity amounts of equity securities are calculated by increasing and decreasing the correlations between the discount rates and the growth rates (0~1%) or the rate of increase in liquidation value (-1~1%) which are significant unobservable inputs. Sensitivity amounts for beneficiary certificates are calculated by increasing and decreasing the correlations between the discount rate of rent cash flow (-1~1%) and the rate of increase in property disposal price (-1~1%), only when they consist of real properties. Other than that, it is difficult to measure the sensitivity amounts of beneficiary certificates for practical reasons. Also, for financial instruments categorized within level 3 as of June 30, 2021 and December 31, 2020, ₩17,702,274 million and ₩20,500,366 million, respectively, are excluded from the sensitivity disclosure because it is impossible to calculate the sensitivity due to changes in unobservable variables for practical reasons.

(*2) Sensitivity amounts of loans measured at FVTPL and derivatives financial instruments are calculated by increasing and decreasing the correlation coefficient and volatility (-10~10%) which are significant unobservable inputs.

(2) Fair value hierarchy of financial instruments measured at amortized cost

(i) The Bank's policies for measuring fair value of financial instruments at amortized costs are as follows:

- Cash and due from banks: Fair value of cash is considered equivalent to the carrying amount. In the case of due from banks on demand, which do not have a set maturity and can be realized instantly, the carrying amount is a close estimate of the fair value and is assumed so. In the case of other ordinary due from banks, the cash flow discount method is used to estimate the fair value.
- Securities measured at amortized cost: The fair value of securities measured at amortized cost is computed by widely-accepted appraisal agencies upon request.
- Loans measured at amortized cost: The fair value of loans measured at amortized cost is the expected future cash flows, reflecting premature redemption ratio, discounted by the market interest rate, adjusted by a spread sheet considering the probability of default. Exceptions to this method include loans with credit line facilities, loans with a maturity of three months or less left and impaired loans, which the Bank assumes the carrying amount as the fair value.
- Deposits: The fair value of deposits is computed using the discounted cash flow method. However, for deposits, whose cash flows cannot be estimated reasonably, the Bank assumes the carrying amount as the fair value.

45. Fair Value of Financial Assets and Liabilities, Continued

- Borrowings: The fair value of industrial financial debentures is computed using the discounted cash flow method by the Bank's Fair Value Evaluation System. However, for borrowings including call money whose contractual maturity is three months or less, the Bank assumes the carrying amount as the fair value.
- Debentures: The fair value of industrial financial debentures is computed using the discounted cash flow method by the Bank's Fair Value Evaluation System.
- Other financial assets and liabilities: The fair value of other financial assets and liabilities is computed using the discounted cash flow method. However, in cases cash flow cannot be estimated reasonably, the Bank assumes the carrying amount as the fair value.

(ii) The fair value hierarchy of financial instruments measured at amortized cost as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Cash and due from banks(*)	₩ 5,193,365	6,075,890	—	11,269,255
Securities measured at amortized cost	1,094,179	1,322,955	—	2,417,134
Loans measured at amortized cost(*)	—	1,564,172	161,963,578	163,527,750
Other financial assets(*)	—	8,402,449	1,083,933	9,486,382
	₩ 6,287,544	17,365,466	163,047,511	186,700,521
Financial liabilities:				
Deposits(*)	₩ —	1,832,336	47,008,178	48,840,514
Borrowings(*)	—	658,941	20,304,448	20,963,389
Debentures	—	144,779,780	—	144,779,780
Other financial liabilities(*)	—	7,064,215	3,674,900	10,739,115
	₩ —	154,335,272	70,987,526	225,322,798

	December 31, 2020			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Cash and due from banks(*)	₩ 4,904,584	5,624,394	—	10,528,978
Securities measured at amortized cost	665,183	120,081	—	785,264
Loans measured at amortized cost(*)	—	465,485	155,354,001	155,819,486
Other financial assets(*)	—	3,831,087	630,030	4,461,117
	₩ 5,569,767	10,041,047	155,984,031	171,594,845
Financial liabilities:				
Deposits(*)	₩ —	2,249,420	43,624,163	45,873,583
Borrowings(*)	—	1,008,635	17,865,518	18,874,153
Debentures	—	140,088,033	—	140,088,033
Other financial liabilities(*)	—	3,104,887	3,784,488	6,889,375
	₩ —	146,450,975	65,274,169	211,725,144

(*) For financial instruments categorized as level 2, the carrying amount is considered as a reasonable approximation of the fair value and is thus, disclosed by fair value.

45. Fair Value of Financial Assets and Liabilities, Continued

(iii) Details of valuation technique and inputs used in the fair value measurement categorized within level 2 and level 3 of the fair value hierarchy of financial instruments measured at amortized cost as of June 30, 2021 and December 31, 2020 are as follows:

	Valuation technique	Input
Level 2		
Financial assets:		
Securities measured at amortized cost	Discounted cash flow method	Discount rate
Financial liabilities:		
Debentures	Discounted cash flow method	Discount rate
Level 3		
Financial assets:		
Loans measured at amortized cost	Discounted cash flow method	Credit spread, Other spread, Prepayment rate
Other financial assets	Discounted cash flow method	Other spread
Financial liabilities:		
Deposits	Discounted cash flow method	Other spread, Prepayment rate
Borrowings	Discounted cash flow method	Other spread
Other financial liabilities	Discounted cash flow method	Other spread

46. Categories of Financial Assets and Liabilities

Categories of financial assets and liabilities as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021							
	Cash and cash equivalents	Financial instruments measured at FVTPL	Financial instruments designated at FVTPL	Financial instruments measured at FVOCI	Financial instruments designated at FVOCI	Financial instruments measured at amortized cost	Hedging purpose derivative instruments	Total
Financial assets:								
Cash and due from banks	₩ 5,193,365	—	—	—	—	6,075,890	—	11,269,255
Securities measured at FVTPL	—	10,272,772	—	—	—	—	—	10,272,772
Securities measured at FVOCI	—	—	—	18,515,751	23,494,755	—	—	42,010,506
Securities measured at amortized cost	—	—	—	—	—	2,417,134	—	2,417,134
Loans measured at FVTPL	—	701,288	—	—	—	—	—	701,288
Loans measured at amortized cost	2,866,681	—	—	—	—	160,027,855	—	162,894,536
Derivative financial assets	—	4,126,319	—	—	—	—	1,019,802	5,146,121
Other financial assets	—	—	—	—	—	9,487,732	—	9,487,732
	₩ 8,060,046	15,100,379	—	18,515,751	23,494,755	178,008,611	1,019,802	244,199,344

46. Categories of Financial Assets and Liabilities, Continued

	June 30, 2021							
	Cash and cash equivalents	Financial instruments measured at FVTPL	Financial instruments designated at FVTPL	Financial instruments measured at FVOCI	Financial instruments designated at FVOCI	Financial instruments measured at amortized cost	Hedging purpose derivative instruments	Total
Financial liabilities:								
Financial liabilities measured at FVTPL	₩ —	—	1,892,708	—	—	—	—	1,892,708
Deposits	—	—	—	—	—	48,875,219	—	48,875,219
Borrowings	—	—	—	—	—	20,975,895	—	20,975,895
Debentures	—	—	—	—	—	143,375,963	—	143,375,963
Derivative financial liabilities	—	3,586,909	—	—	—	—	66,264	3,653,173
Other financial liabilities	—	—	—	—	—	10,751,127	—	10,751,127
	₩ —	3,586,909	1,892,708	—	—	223,978,204	66,264	229,524,085

	December 31, 2020							
	Cash and cash equivalents	Financial instruments measured at FVTPL	Financial instruments designated at FVTPL	Financial instruments measured at FVOCI	Financial instruments designated at FVOCI	Financial instruments measured at amortized cost	Hedging purpose derivative instruments	Total
Financial assets:								
Cash and due from banks	₩ 4,904,584	—	—	—	—	5,624,394	—	10,528,978
Securities measured at FVTPL	—	8,320,631	—	—	—	—	—	8,320,631
Securities measured at FVOCI	—	—	—	19,276,210	14,865,115	—	—	34,141,325
Securities measured at amortized cost	—	—	—	—	—	785,264	—	785,264
Loans measured at FVTPL	—	1,434,514	—	—	—	—	—	1,434,514
Loans measured at amortized cost	824,610	—	—	—	—	154,475,568	—	155,300,178
Derivative financial assets	—	6,880,971	—	—	—	—	1,448,405	8,329,376
Other financial assets	—	—	—	—	—	4,463,726	—	4,463,726
	₩ 5,729,194	16,636,116	—	19,276,210	14,865,115	165,348,952	1,448,405	223,303,992
Financial liabilities:								
Financial liabilities measured at FVTPL	₩ —	—	1,694,957	—	—	—	—	1,694,957
Deposits	—	—	—	—	—	45,879,419	—	45,879,419
Borrowings	—	—	—	—	—	18,887,611	—	18,887,611
Debentures	—	—	—	—	—	138,318,728	—	138,318,728
Derivative financial liabilities	—	6,206,902	—	—	—	—	98,385	6,305,287
Other financial liabilities	—	—	—	—	—	6,896,581	—	6,896,581
	₩ —	6,206,902	1,694,957	—	—	209,982,339	98,385	217,982,583

47. Offsetting of Financial Assets and Liabilities

Details of financial instruments subject to offsetting, enforceable master netting agreements or similar agreements as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021					
	Gross amounts of recognized financial asset	Gross amounts of recognized financial liabilities set off in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts not set off in the statement of financial position		Net amounts
				Financial instruments	Cash collateral received	
Derivative financial assets(*)	₩ 5,146,121	—	5,146,121	2,261,781	270,615	2,613,725
Unsettled spot exchange receivables(*)	6,654,631	—	6,654,631	6,653,380	—	1,251
Unsettled domestic exchange receivables	3,469,076	1,721,259	1,747,817	—	—	1,747,817
Security pledged as collateral for repurchase agreements	1,974,244	—	1,974,244	2,041,640	—	(67,396)
Reverse repurchase agreements	785,600	—	785,600	785,600	—	—
Loaned securities	859,161	—	859,161	859,161	—	—
Receivables from securities transaction	401,990	—	401,990	401,990	—	—
	₩ 19,290,823	1,721,259	17,569,564	13,003,552	270,615	4,295,397

	June 30, 2021					
	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not set off in the statement of financial position		Net amounts
				Financial instruments	Cash collateral pledged	
Derivative financial liabilities(*)	₩ 3,653,173	—	3,653,173	2,598,470	101,022	953,681
Unsettled spot exchange payables(*)	6,654,129	—	6,654,129	6,653,380	—	749
Unsettled domestic exchange payables	2,131,346	1,721,259	410,087	—	—	410,087
Repurchase agreements	2,041,640	—	2,041,640	2,041,640	—	—
Payables from securities transaction	112,156	—	112,156	112,156	—	—
	₩ 14,592,444	1,721,259	12,871,185	11,405,646	101,022	1,364,517

47. Offsetting of Financial Assets and Liabilities, Continued

	December 31, 2020					
	Gross amounts of recognized financial asset	Gross amounts of recognized financial liabilities set off in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts not set off in the statement of financial position		Net amounts
				Financial instruments	Cash collateral received	
Derivative financial assets(*)	₩ 8,329,376	—	8,329,376	5,414,190	526,608	2,388,578
Unsettled spot exchange receivables(*)	2,517,129	—	2,517,129	2,516,540	—	589
Unsettled domestic exchange receivables	2,731,336	1,417,378	1,313,958	—	—	1,313,958
Security pledged as collateral for repurchase agreements	2,762,065	—	2,762,065	1,875,504	—	886,561
Reverse repurchase agreements	1,440,000	—	1,440,000	1,440,000	—	—
Loaned securities	289,806	—	289,806	289,806	—	—
Receivables from securities transaction	18,519	—	18,519	18,519	—	—
	₩ 18,088,231	1,417,378	16,670,853	11,554,559	526,608	4,589,686

	December 31, 2020					
	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not set off in the statement of financial position		Net amounts
				Financial instruments	Cash collateral pledged	
Derivative financial liabilities(*)	₩ 6,305,287	—	6,305,287	4,261,659	40,158	2,003,470
Unsettled spot exchange payables(*)	2,517,693	—	2,517,693	2,516,540	—	1,153
Unsettled domestic exchange payables	2,004,572	1,417,378	587,194	—	—	587,194
Repurchase agreements	1,875,504	—	1,875,504	1,875,504	—	—
Payables from securities transaction	14,766	—	14,766	14,766	—	—
	₩ 12,717,822	1,417,378	11,300,444	8,668,469	40,158	2,591,817

(*) For the derivatives covered by the ISDA derivative contracts, all contracts are settled and the net amount of derivative contracts is measured and paid based on the liquidation value if the counterparty files for bankruptcy or has any credit issues.

48. Operating Segments

(1) The Bank has four reportable segments, as described below, which are the Bank's strategic business units. They are managed separately because each business requires different technology and marketing strategies.

The following summary describes general information about each of the Bank's reportable segments:

Segments	General information
Corporate finance	Provides trade finance and loans to corporate customers
Investment finance	Provides consulting services to corporate such as capital finance, restructuring, etc.
Asset management	Provides asset management services to individual and corporate customers
Others	Any other segment not mentioned above

(2) Operating income (loss) from external customers and among operating segments for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021				
	Corporate finance	Investment finance	Asset management	Others	Total
Operating income from external customers	₩ 18,227	1,730,000	13,064	601,124	2,362,415
Operating income (loss) from intersegment sales	(12,026)	403,962	—	(391,936)	—
	₩ 6,201	2,133,962	13,064	209,188	2,362,415

	2020				
	Corporate finance	Investment finance	Asset management	Others	Total
Operating income (loss) from external customers	₩ 235,168	810,711	11,597	(368,577)	688,899
Operating income (loss) from intersegment sales	(86,638)	(361,048)	—	447,686	—
	₩ 148,530	449,663	11,597	79,109	688,899

(3) Details of segment results for the Bank's reportable segments for the six-month periods ended June 30, 2021 and 2020 are as follows:

	2021				
	Corporate finance	Investment finance	Asset management	Others	Total
Net interest income	₩ 610,452	(33,082)	381	209,159	786,910
Non-interest income					
Income related to securities(*1)	12,074	(35,130)	—	9,279	(13,777)
Other non-interest income	480,696	2,176,824	18,447	(14,026)	2,661,941
	492,770	2,141,694	18,447	(4,747)	2,648,164
Provision for loan losses and others(*2)	(783,463)	75,236	—	5,284	(702,943)
General and administrative expenses	(313,558)	(49,886)	(5,764)	(508)	(369,716)
Operating income	₩ 6,201	2,133,962	13,064	209,188	2,362,415

48. Operating Segments, Continued

	2020				
	Corporate finance	Investment finance	Asset management	Others	Total
Net interest income	₩ 592,853	(15,920)	(332)	4,662	581,263
Non-interest income					
Income related to securities(*1)	26,497	99,321	—	(6,627)	119,191
Other non-interest income	264,352	197,674	17,901	81,307	561,234
	290,849	296,995	17,901	74,680	680,425
Provision for loan losses and others(*2)	(436,563)	216,708	—	(233)	(220,088)
General and administrative expenses	(298,609)	(48,120)	(5,972)	—	(352,701)
Operating income	₩ 148,530	449,663	11,597	79,109	688,899

(*1) Income related to securities is composed of net gain (loss) on securities measured at FVTPL, securities measured at FVOCI and securities measured at amortized cost.

(*2) Provision for loan losses and others comprises of provision for loan losses, provision for derivative credit risks, gains (losses) on sales of loans, and increase (reversal) of provision.

(4) Geographical revenue information about the Bank's operating segments for the six-month periods ended June 30, 2021 and 2020 and the geographical non-current asset information as of June 30, 2021 and December 31, 2020 are as follows:

	Revenues (*1)		Non-current assets (*2)	
	2021	2020	June 30, 2021	December 31, 2020
Domestic	₩ 15,368,839	17,317,451	29,346,230	26,606,309
Overseas	665,469	855,124	40,070	28,116
	₩ 16,034,308	18,172,574	29,386,300	26,634,425

(*1) Revenues consist of interest income, fees and commission income, dividend income, income related to securities, foreign currency transaction gain, gain on derivatives, other operating income and provision for loan losses.

(*2) Non-current assets consist of investments in subsidiaries and associates, property and equipment, investment property and intangible assets.

49. Risk Management

(1) Introduction

(i) Objectives and principles

The Bank's risk management aims to maintain financial soundness and effectively manage various risks pertinent to the nature of the Bank's business. The Bank has set up and fulfilled policies to manage risks timely and effectively. Pursuant to the policies, the Bank's risks shall be

- managed comprehensively and independently,
- recognized timely, evaluated exactly and managed effectively,
- maintained to the extent that the risks balance with profit,
- diversified appropriately to avoid concentration on specific segments,
- managed to prevent excessive exposure by the setting up and managing of tolerance limits and guidelines.

(ii) Risk management strategy and process

The Bank's risk management business is separated into two different stages; the 'metrification stage,' in which risks are estimated and monitored, and the 'integration stage,' in which information gained during the risk management process is integrated and used in management strategies. Risk management is recognized as a key component of the Bank's management and seeks to change from its previously adaptive and limited role to more leading and comprehensive role.

Furthermore, the Bank focuses on consistent communication among different departments to establish a progressive consensus on risk management.

(iii) Risk management governance

Risk Management Committee

The Bank's Risk Management Committee (the "Committee") is composed of the President of the committee (an outside director), and three other commissioners. The Committee functions to establish policies of risk management, evaluate the capital adequacy of the Bank, discuss material issues relating to risk management, and present preliminary decisions on such matters.

The CEO of the Bank and the head of Risk Management Segment

The CEO of the Bank, according to the policies of risk management, performs his or her role to manage and direct risk management to sustain efficiency and internal control. The head of the Risk Management Segment is responsible for supervising the overall administration of the Bank's risk management business and providing risk-related information to members of the board of directors and the Bank's management.

Risk Management Policy Committee

The Bank's Risk Management Policy Committee is composed of the leaders of all business segments. and exercises its role to decide important matters relating to the Bank's portfolio including allocating internal capital

49. Risk Management, Continued

limits by segment and setting exposure limits by industry within the scope that Risk Management Committee regulated.

(iv) Performance of risk management committee

The Risk Management Committee performs comprehensive reviews of all the affairs related to risk management and deliberates the decisions of the board of directors. For the year ended June 30, 2021, the key activities of the Risk Management Committee are as follows:

- Major decision
  - Risk management plan for 2021
  - Setting and managing exposure limits by country for 2021
  - Contingency funding plan for 2021
- Major reporting
  - Result of integrated crisis analysis for the second half of 2020
  - Result of assessment of suitability for internal capital for 2020
  - Resolution of Credit Committee for the fourth quarter of 2020
  - Result of ex-post validation of credit rating system and default rates, and verification of risk measurement factors for internal purposes

(v) Improvement of risk management system

For the continuous improvement of risk management, financial soundness and capital adequacy, the Bank performs the following:

- Continuous improvement of Basel
  - Improvements in the internal capital adequacy assessment system, in line with the guidelines set by the Financial Supervisory Service (FSS) in 2008, to manage capital adequacy more effectively
  - Improvements in the credit assessment system on Low Default Portfolio (LDP)
  - Elaboration of risk measuring criteria including credit risk parameters and measurement logics
  - Development of the application system for timely calculation of LCR and NSFR
  - Rebuilding the Corporate Credit Rating System (approved by Financial Supervisory Services on October 26, 2017)
  - Establishment of the system to calculate Basel Interest Rate Risk in the Banking Book coming to domestic in September 2018
  - Establishment of the system to comply with the amended regulation relating to risk-weighted assets under Basel III in December 2020

49. Risk Management, Continued

- Expansion of risk management infrastructure
  - Establishment of the RAPM system to reflect risks to the Bank's business and support decision-making upon management, and application of performance assessment at the branch level since 2010
  - Enforcement of risk management related to irregular compound derivatives and validation of the derivative pricing model developed by the Bank's Front Office
  - Establishment of IFRS 9 accounting system to calculate a loan loss allowances under IFRS 9 in March 2017 and, since then, run of IFRS 9 accounting system in January 2018

(vi) Risk management reporting and measuring system

The Bank endeavours consistently to objectively and rationally measure and manage all significant risks considering the characteristics of operational areas, assets and risks. In relation to reporting and measurement, the Bank has developed application systems as follows:

Application system	Approach	Completion date	Major function
Corporate Credit Rating System	Logit Model	Oct. 2017	Rebuilding the Corporate Credit Rating System
Market Risk Management System	Risk Watch	Jun. 2002 Feb. 2019	Summarize position, manage exposure limits and calculate Market VaR
	RS Model	Sep. 2012	Calculate regulatory capital by Standardized Approach
	Murex M/O	Apr. 2013	Supplement of RiskWatch to calculate VaR
Interest/Liquidity Risk Management System	In-house	May. 2019	Calculation of interest risk, liquidity risk, etc.
Operational Risk Management System	Standardized Approach	May. 2006	Manage process and calculate CSA, KRI and OP VaR, etc.
	AMA	May. 2009	Measure by Advanced Measurement Approach
BIS Capital Ratio Calculation/Credit Risk Measurement System	Fermat RaY (*)	Sep. 2006 Dec. 2013	Calculate equity, credit risk-weighted assets and credit risk, etc.
Loan Loss Allowance Calculation System	IFRS IFRS 9	Jan. 2011 Mar. 2017	Incurred loss model Expected loss model

(*) To comply with the amended regulation relating to risk-weighted assets under Basel III, the upgrade of relevant systems was completed in March 2021.

49. Risk Management, Continued

(vii) Response to Basel

The Korean financial authorities have implemented Basel II since January 2008, and the Standardized Approach and the Foundation Internal Ratings-Based Approach for calculating credit risk are applicable.

In conformity with the implementation roadmap of Basel II, the Bank obtained the approval to use the Foundation Internal Ratings-Based Approach on credit risk from the FSS in July 2008 and has applied the approach since late June 2008. The Bank applies the Standardized Approach on market risks and operational risks.

The Bank completed the Basel III standard risk management system in preparation of the adoption of the Basel III regulations announced on December 1, 2013. Starting from 2013 year-end, the BIS capital adequacy ratio has been measured in accordance to the Basel III regulations.

Responding to the requirements of the financial authorities, the Bank recognizes interest rate risk, liquidity risk, credit bias risk and reputation risk besides Pillar I risks (credit risk, market risk and operational risk). The Bank has actively responded to the Pillar 2 regulation, including additional capital requirements based on comprehensive assessment of risk management levels since 2015. In addition, from the end of 2015, the Bank has applied the uniform standards for the public announcement of financial business for Basel compliance.

The Bank completed revised standards such as capital requirements for banks' investments in funds in 2017, capital requirements for securitization in 2018, and the Standardised Approach for measuring counterparty credit risk (SA-CCR) in 2019.

To comply with the amended regulation relating to risk-weighted assets under Basel III, the Bank completed the consultation and the development of the relevant systems and the amended regulation has been applied since the calculation of the BIS ratio at the end of 2020.

(viii) Internal capital adequacy assessment process

Internal capital adequacy assessment process is defined as the process that the Bank aggregates significant risks, calculates its internal capital, compares the internal capital with the available capital and assesses its internal capital adequacy. The internal capital adequacy report including the assessment results at the end of the year is prepared and reported to the Risk Management Policy Committee.

- Internal capital adequacy assessment

  For the internal capital adequacy assessment, the Bank calculates its aggregated internal capital by evaluating all significant risks and available capital considering the quality and components of capital, and then assesses the internal capital adequacy by comparing the aggregated internal capital with the available capital.

  In addition, the Bank conducts periodic stress tests more than once every six months to assess potential weakness in crisis situations and uses its results to assess the internal capital adequacy. The Bank assumes the macroeconomic situation as three stages of 'normal- pessimistic-serious' and is preparing countermeasures such as checking the adequacy of capital by each stage.

49. Risk Management, Continued

- Goal setting of internal capital management

  The Bank sets up and manages an internal capital limit on an annual basis, through the approval of the Risk Management Committee, to maintain internal capital adequacy by managing internal capital (integrated risks) within the extent of available capital.

  The prior year's internal capital, analysis of domestic and foreign environment changes in the current year, and the direction and size of operations are all reflected in the goal setting of internal capital management to calculate the integrated internal capital scale. Moreover, Bank for International Settlements(BIS) capital adequacy ratio and risk appetite are taken into consideration in the goal setting of internal capital management.

- Allocation of internal capital

  The Bank's Risk Management Committee approves entire internal capital and the Risk Management Policy Committee allocates the capital to each segment and department, considering the extent of possible risk faced and size of operations. The allocated internal capital is monitored regularly and managed using various management methods. The results of monitoring and managing the allocated internal capital are reported to the Risk Management Committee. In case of any material changes in the Bank's business plan or risk operation strategy, the Bank adjusts the allocations elastically.

- Composition of internal capital

  Internal capital comprises all the significant risks of the Bank and is composed of quantifiable and non-quantifiable risks. Quantifiable risks are composed of credit risk, market risk, interest rate risk, operational risk and credit concentration risk, foreign currency settlement risk, and are risks measured quantitatively by applying reasonable methodology using objective data. Non-quantifiable risks are composed of strategy risk, reputation risk, residual risk on asset securitization and furthermore. Non-quantifiable risks are those risks that cannot be measured quantitatively because of lack of data or the absence of appropriate measuring methodologies.

(2) Credit Risk

(i) Concept

Credit risk can be defined as potential loss resulting from the refusal to perform obligations or default of counterparties. More generally, it is used to refer to the possibility of loss from engaged bonds that cannot be redeemed properly or from substitute payments.

(ii) Approach to credit risk management

Summary of credit risk management

The Bank regards credit risk as the most significant risk area in its business operations, and accordingly, closely monitors its credit risk exposure. The Bank manages both credit risks at portfolio level and at individual credit level. At portfolio level, the Bank reduces credit concentration and restructures the portfolio in such a way to maximize profitability considering the risk level. To avoid credit concentration on a particular sector, the Bank manages credit limits by client, group, and industry. The Bank also resets exposure management directives for each industry by conducting an industry credit evaluation twice a year.

49. Risk Management, Continued

At the individual credit level, the relationship manager (RM), the credit officer (CO) and the Credit Review Committee manage each borrower's credit risk.

Post management and insolvent borrower management

The Bank monitors the borrower's credit rating from the date of the loan to the date of the final collection of debt consistently and inspects the borrower's status regularly and frequently to prevent the generation of new bad debts and to stabilize the number of debt recoveries.

In addition, an early warning system is operated to spot borrowers that are highly likely to be insolvent. The early warning system provides financial information, financial transaction information, public information and market information of the borrower, and such information is used by the RM and the CO to monitor and manage changes in the borrower's credit rating.

A borrower that is likely to be insolvent is classified as an early warning borrower or a precautionary borrower, depending on the level of insolvency risk. The Bank sets up a specific and applicable stabilization plan for such a borrower considering the borrower's characteristics. Furthermore, sub-standard borrowers are classified as insolvent borrowers, and are managed intensively by the Bank, which takes legal proceedings, disposals or corporate turnaround measures if necessary.

Classification of asset soundness and provision of allowance for loss

Classification of asset soundness is fulfilled by the analysis and assessment of credit risk. The classification is used to provide an appropriate allowance, prevent further occurrences of insolvent assets and promote the normalization of existing insolvent assets to enhance the stabilization of asset operations.

Based on the Financial Supervisory Regulations of the Republic of Korea, the Bank has established standards and guidelines on the classification of asset soundness, according to the Forward-Looking Criteria, which reflects not only the borrower's past records of repayment but also their future debt repayment capability.

In conformity with these standards, the Bank classifies the soundness of its assets as "normal", "precautionary", "substandard", "doubtful", or "estimated loss" and differentiates the coverage ratio by the level of classification.

49. Risk Management, Continued

Details of loans by credit rating as of June 30, 2021 and December 31, 2020 are as follows:

< Corporate >

	June 30, 2021			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
AAA ~ BBB1	₩ 129,490,010	114,044,676	15,445,334	—
BBB2 ~ CCC	35,106,425	10,220,515	23,055,370	1,830,540
Below CC	2,558,665	—	53,258	2,505,407
	₩ 167,155,100	124,265,191	38,553,962	4,335,947

	December 31, 2020			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
AAA ~ BBB1	₩ 119,275,121	116,563,480	2,711,641	—
BBB2 ~ CCC	36,638,249	22,365,102	14,262,908	10,239
Below CC	2,932,191	—	85,070	2,847,121
	₩ 158,845,561	138,928,582	17,059,619	2,857,360

< Retail >

	June 30, 2021			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
Grade 1 ~ Grade 6	₩ 213,300	201,641	11,635	24
Grade 7 ~ Grade 8	3,182	—	3,127	55
Grade 9 ~ Grade 10	637	—	—	637
	₩ 217,119	201,641	14,762	716

	December 31, 2020			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
Grade 1 ~ Grade 6	₩ 234,096	223,180	10,623	293
Grade 7 ~ Grade 8	3,561	—	3,444	117
Grade 9 ~ Grade 10	354	—	—	354
	₩ 238,011	223,180	14,067	764

49. Risk Management, Continued

Details of payment guarantees (including financial guarantees) and unused commitments by credit rating as of June 30, 2021 and December 31, 2020 are as follows:

< Corporate >

	June 30, 2021			
			Lifetime expected credit losses	
	Exposures	12-month expected credit loss	Non credit-impaired	Credit-impaired
Unused commitments:				
AAA ~ BBB1	₩ 33,439,515	30,974,518	2,464,997	—
BBB2 ~ CCC	8,926,129	4,575,438	4,295,125	55,566
Below CC	—	—	—	—
	₩ 42,365,644	35,549,956	6,760,122	55,566
Payment guarantees (including financial guarantees):				
AAA ~ BBB1	₩ 6,371,249	5,381,161	990,088	—
BBB2 ~ CCC	5,274,696	2,656,257	2,561,738	56,701
Below CC	700,321	—	—	700,321
	₩ 12,346,266	8,037,418	3,551,826	757,022

	December 31, 2020			
			Lifetime expected credit losses	
	Exposures	12-month expected credit loss	Non credit-impaired	Credit-impaired
Unused commitments:				
AAA ~ BBB1	₩ 32,811,121	32,391,593	419,528	—
BBB2 ~ CCC	9,970,279	6,922,824	3,047,455	—
Below CC	97	—	97	—
	₩ 42,781,497	39,314,417	3,467,080	—
Payment guarantees (including financial guarantees):				
AAA ~ BBB1	₩ 4,743,686	4,412,348	331,338	—
BBB2 ~ CCC	4,665,561	2,814,897	1,846,293	4,371
Below CC	689,858	—	1,351	688,507
	₩ 10,099,105	7,227,245	2,178,982	692,878

49. Risk Management, Continued

< Retail >

	June 30, 2021			
			Lifetime expected credit losses	
	Exposures	12-month expected credit loss	Non credit-impaired	Credit-impaired
Unused commitments:				
Grade 1 ~ Grade 6	₩ 68,872	68,354	518	—
Grade 7 ~ Grade 8	1	—	1	—
Grade 9 ~ Grade 10	38	—	—	38
	₩ 68,911	68,354	519	38

	December 31, 2020			
			Lifetime expected credit losses	
	Exposures	12-month expected credit loss	Non credit-impaired	Credit-impaired
Unused commitments:				
Grade 1 ~ Grade 6	₩ 60,583	59,203	1,380	—
Grade 7 ~ Grade 8	59	—	59	—
Grade 9 ~ Grade 10	—	—	—	—
	₩ 60,642	59,203	1,439	—

(iii) Measurement methodology of credit risk

Pursuant to Basel III, the Bank selects the measurement methodology of credit risk considering the complexity of measurement, measurement factors, estimating methods and others. Measurement approaches are divided into Standardized Approach and Internal Ratings-Based Approach.

Standardized Approach ("SA")

In the case of the Standardized Approach, the risk weights are applied according to the credit rating assessed by External Credit Assessment Institution ("ECAI"). Risk weights in each credit rating are as follows:

Credit rating	Corporate	Country	Bank
AAA ~ AA-	20.0%	0.0%	20.0%
A+ ~ A-	50.0%	20.0%	30.0%
BBB+ ~ BBB-	75.0%	50.0%	50.0%
BB+ ~ BB-	100.0%	100.0%	100.0%
B+ ~ B-	150.0%	100.0%	100.0%
Below B-	150.0%	150.0%	150.0%
Unrated	100.0% (*)	100.0%	Rating based on due diligence

(*) In case of small and medium-sized business, 85.0% is applied.

49. Risk Management, Continued

The OECD is designated as foreign ECAI and Korea Investrors Service Co., Ltd., NICE Investors Services Co., Ltd. and the Korea Ratings Co., Ltd. are designated as domestic ECAI.

The Bank applies the credit rating based on the corresponding loan and same borrower's unsecured senior loans. In the case the borrower's risk weight is higher than the unrated exposure's risk weight (100%), the higher weight is applied. In the case the borrower has more than one rating, the higher weight of the two lowest weights (Second Best Criteria) is applied.

Internal Ratings-Based Approach (IRB)

To use the Internal Ratings-Based Approach, a bank must be approved by the FSS and should also meet the requirement pre-set by the FSS.

In relation to Basel II that has been adopted domestically as of January 2008, the Bank gained approval from the FSS to use the Foundation Internal Ratings-Based Approach in July 2008. The Bank has calculated credit risk-weighted assets using the approach since late June 2008.

Measurement method of credit risk-weighted asset

The Bank calculates credit risk-weighted assets of corporate exposures and asset securitization exposures using the Foundation Internal Ratings-Based Approach as of December 31, 2020.

The Standardized Approach is applied to country exposures, public institution exposures and bank exposures permanently and applied to overseas subsidiary and the Bank's branch pursuant to prior consultation with the FSS.

<Approved measurement method>

Measurement method		Exposure
Standardized Approach	Permanent SA	—Countries, public institutions and banks
	SA	—Overseas subsidiaries and branches, and other assets, retail, residential mortgage, commercial properties
Foundation Internal Ratings-Based Approach		—Corporate, small and medium enterprises, asset securitization (at each credit level) and equity
Application of IRB by phase		—Special lending, non-residence and others

The mitigated effect of credit risks reflects the related policies which consider eligible collateral and guarantees. The Bank calculates the credit risk-weighted assets using the capital adequacy ratio.

Upon the calculation of credit risk-weighted assets for derivatives, the Bank takes into consideration the set-off effects of transactions under legally enforceable rights to set-off to calculate exposures.

49. Risk Management, Continued

Credit rating model

The results of credit rating are presented as grades through an assessment of the debt repayment capacity that the principal and interest of debt securities or loans are redeemed while complying with contractual redemption schedule.

Using the Bank's internal credit rating model, the Bank classifies debtors' credit rating into 14 grades (AAA~D). To distinguish the difference between credits in the same grade, the Bank uses 20 stages as auxiliaries to 14 grades.

The Bank's regular credit rating process is carried out once a year and in the case of the change of debtor's credit condition, the credit rating is frequently adjusted as necessary to retain the adequacy of credit rating.

The results of credit rating are applied to various areas such as discrimination of loan processes, loan limit, loan interest rate, post loan management standard process, credit risk measurement, and allowance for loan losses assessment.

Credit rating process control structure

According to the Principle of Checks and Balances, the Bank has established the credit rating process control structure by which the credit rating system operates appropriately.

- Independent assessment of credit rating: The Bank's business segment (RM) and credit rating assessment segment (Credit Rating Officer) are independently operated.
- Independent control of credit rating system: The control of credit rating system including the development of credit rating model is independently implemented by the Bank's Risk Management Department.
- Independent verification of credit rating system: Credit rating system is independently verified by Risk Validation Team of the Financial Planning Department.
- Internal audit of credit rating process: Credit rating process is audited by the Bank's internal audit department.
- Role of the Board of Directors and the Bank's management: Major issues relating to credit process are approved by the Board of Directors and are regularly monitored by the Bank's top management.

The Bank reviews debt serviceability based on a credit analysis when handling loans. Depending on the results, credit loan preservation is adjusted as necessary using such methods as interest rate preservation due to credit risk.

The Bank evaluates the value of the collateral, performing ability and legal validity of the guarantee at the initial acquisition. The Bank re-evaluates the provided collateral and guarantees regularly for them to be reasonably preserved.

For guarantees, the Bank demands a corresponding written guarantee according to loan handling standards and the guarantor's credit rating is independently calculated when in conformance with the credit rating endowment method.

49. Risk Management, Continued

The quantification of the extent to which collateral and other credit enhancements mitigate credit risk of impaired financial assets as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Securities measured at FVOCI	₩ 70,939	70,397
Loans measured at amortized cost	4,384,695	3,009,118
Other assets	33,736	21,817

(iv) Credit exposure

Geographical information of credit exposure as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021				
	Korea	UK	USA	Others	Total
Due from banks (excluding due from BOK)	₩ 6,014,384	405,372	71,974	501,257	6,992,987
Securities measured at FVOCI:					
Bonds (excluding government bonds)	10,353,184	1,087,839	686,921	1,628,373	13,756,317
Loans	150,100,711	1,714,363	1,334,026	12,109,060	165,258,160
Derivative financial assets	1,009,002	—	—	11,220	1,020,222
Other assets	9,412,366	47,170	8,913	161,535	9,629,984
	176,889,647	3,254,744	2,101,834	14,411,445	196,657,670
Guarantees (including financial guarantees)	12,239,840	—	83,990	22,436	12,346,266
Commitments	41,044,161	339,123	164,271	886,999	42,434,554
	53,284,001	339,123	248,261	909,435	54,780,820
	₩ 230,173,648	3,593,867	2,350,095	15,320,880	251,438,490

	December 31, 2020				
	Korea	UK	USA	Others	Total
Due from banks (excluding due from BOK)	₩ 5,468,189	238,108	129,309	465,850	6,301,456
Securities measured at FVOCI:					
Bonds (excluding government bonds)	9,821,122	1,082,184	628,370	1,322,310	12,853,986
Loans	144,418,267	1,530,962	1,167,894	10,506,187	157,623,310
Derivative financial assets	1,432,559	—	—	16,347	1,448,906
Other assets	4,436,564	72,082	7,943	60,769	4,577,358
	165,576,701	2,923,336	1,933,516	12,371,463	182,805,016
Guarantees (including financial guarantees)	9,977,111	—	82,408	39,586	10,099,105
Commitments	41,901,283	287,840	128,131	524,886	42,842,140
	51,878,394	287,840	210,539	564,472	52,941,245
	₩ 217,455,095	3,211,176	2,144,055	12,935,935	235,746,261

49. Risk Management, Continued

Industry information of credit exposure as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021			
	Manufacturing	Service	Others	Total
Due from banks (excluding due from BOK)	₩ —	6,470,566	522,421	6,992,987
Securities measured at FVOCI:				
Bonds (excluding government bonds)	2,650,142	8,511,249	2,594,926	13,756,317
Loans	70,838,082	81,930,518	12,489,560	165,258,160
Derivative financial assets	—	1,020,222	—	1,020,222
Other assets	116,566	197,138	9,316,280	9,629,984
	73,604,790	98,129,693	24,923,187	196,657,670
Guarantees (including financial guarantees)	8,936,595	3,107,564	302,107	12,346,266
Commitments	18,509,131	17,185,436	6,739,987	42,434,554
	27,445,726	20,293,000	7,042,094	54,780,820
	₩ 101,050,516	118,422,693	31,965,281	251,438,490

	December 31, 2020			
	Manufacturing	Service	Others	Total
Due from banks (excluding due from BOK)	₩ —	5,909,550	391,906	6,301,456
Securities measured at FVOCI:				
Bonds (excluding government bonds)	2,570,583	7,762,090	2,521,313	12,853,986
Loans	70,089,916	75,782,918	11,750,476	157,623,310
Derivative financial assets	—	1,448,906	—	1,448,906
Other assets	115,348	176,753	4,285,257	4,577,358
	72,775,847	91,080,217	18,948,952	182,805,016
Guarantees (including financial guarantees)	7,622,494	2,197,060	279,551	10,099,105
Commitments	16,211,814	15,785,658	10,844,668	42,842,140
	23,834,308	17,982,718	11,124,219	52,941,245
	₩ 96,610,155	109,062,935	30,073,171	235,746,261

49. Risk Management, Continued

The detail of credit exposures by industry affected by the pandemic of COVID-19 as of June 30, 2021 and December 31, 2020 are as follows and the exposures by industries could be changed according to economic fluctuations.

	June 30, 2021									
	Due from banks (excluding due from BOK)	Securities measured at FVOCI: Bonds (excluding government bonds)	Loans	Derivative financial assets	Other assets	Subtotal	Guarantees (including financial guarantees)	Commit-ments	Subtotal	Total
Manufacturing:										
Display	₩ —	—	716,704	—	3,002	719,706	173,997	249,598	423,595	1,143,301
Semiconductor /Mobile phone	—	186,524	3,924,500	—	8,387	4,119,411	141,733	588,548	730,281	4,849,692
Automotive	—	231,300	10,447,567	—	13,366	10,692,233	379,013	1,491,312	1,870,325	12,562,558
Refinery/Chemical/Energy	—	679,083	12,342,492	—	22,022	13,043,597	204,753	4,737,044	4,941,797	17,985,394
Steel/Metal	—	135,684	10,138,314	—	12,210	10,286,208	912,395	1,906,119	2,818,514	13,104,722
Others	—	1,417,551	33,268,505	—	57,579	34,743,635	7,124,704	9,536,510	16,661,214	51,404,849
	—	2,650,142	70,838,082	—	116,566	73,604,790	8,936,595	18,509,131	27,445,726	101,050,516
Service:										
Air transportation	—	5,634	3,267,983	—	8,613	3,282,230	293,729	21,000	314,729	3,596,959
Sea transportation	—	—	2,265,698	—	18,773	2,284,471	84,461	323,602	408,063	2,692,534
Other transportation	—	125,317	6,056,295	—	11,668	6,193,280	14,367	3,594,361	3,608,728	9,802,008
Leisure/Travel industry	—	—	180,631	—	413	181,044	—	3,387	3,387	184,431
Food/Accommodation	—	72,435	2,156,095	—	3,830	2,232,360	51,695	302,175	353,870	2,586,230
Automotive-related	—	—	534,256	—	687	534,943	14,383	53,429	67,812	602,755
Finance/Insurance	2,558	108,222	229,219	—	682	340,681	—	473,120	473,120	813,801
Others	6,468,008	8,199,641	67,240,341	1,020,222	152,472	83,080,684	2,648,929	12,414,362	15,063,291	98,143,975
	6,470,566	8,511,249	81,930,518	1,020,222	197,138	98,129,693	3,107,564	17,185,436	20,293,000	118,422,693
Other:										
Construction	—	297,468	2,590,516	—	3,615	2,891,599	180,388	1,140,658	1,321,046	4,212,645
Others	522,421	2,297,458	9,899,044	—	9,312,665	22,031,588	121,719	5,599,329	5,721,048	27,752,636
	522,421	2,594,926	12,489,560	—	9,316,280	24,923,187	302,107	6,739,987	7,042,094	31,965,281
	₩ 6,992,987	13,756,317	165,258,160	1,020,222	9,629,984	196,657,670	12,346,266	42,434,554	54,780,820	251,438,490

49. Risk Management, Continued

	December 31, 2020									
	Due from banks (excluding due from BOK)	Securities measured at FVOCI: Bonds (excluding government bonds)	Loans	Derivative financial assets	Other assets	Subtotal	Guarantees (including financial guarantees)	Commitments	Subtotal	Total
Manufacturing:										
Display	₩ —	—	739,944	—	3,016	742,960	168,168	236,421	404,589	1,147,549
Semiconductor /Mobile phone	—	146,790	4,403,204	—	8,850	4,558,844	104,489	399,119	503,608	5,062,452
Automotive	—	176,401	10,602,271	—	13,778	10,792,450	314,583	1,363,455	1,678,038	12,470,488
Refinery/Chemical/Energy	—	623,842	11,147,364	—	20,666	11,791,872	158,665	4,010,584	4,169,249	15,961,121
Steel/Metal	—	182,011	10,269,067	—	14,946	10,466,024	684,582	1,905,452	2,590,034	13,056,058
Others	—	1,441,539	32,928,066	—	54,092	34,423,697	6,192,007	8,296,783	14,488,790	48,912,487
	—	2,570,583	70,089,916	—	115,348	72,775,847	7,622,494	16,211,814	23,834,308	96,610,155
Service:										
Air transportation	—	3,156	3,437,648	—	7,991	3,448,795	287,309	28,000	315,309	3,764,104
Sea transportation	—	—	2,331,411	—	16,875	2,348,286	28,297	327,689	355,986	2,704,272
Other transportation	—	90,643	5,543,443	—	9,307	5,643,393	32,136	2,269,016	2,301,152	7,944,545
Leisure/Travel industry	—	—	177,498	—	403	177,901	—	3,315	3,315	181,216
Food/Accommodation	—	104,057	2,093,370	—	3,917	2,201,344	48,226	281,437	329,663	2,531,007
Automotive-related	—	—	475,921	—	669	476,590	18,174	35,615	53,789	530,379
Finance/Insurance	2,013	139,662	8,948	—	944	151,567	—	300	300	151,867
Others	5,907,537	7,424,572	61,714,679	1,448,906	136,647	76,632,341	1,782,918	12,840,286	14,623,204	91,255,545
	5,909,550	7,762,090	75,782,918	1,448,906	176,753	91,080,217	2,197,060	15,785,658	17,982,718	109,062,935
Other:										
Construction	—	210,744	2,505,959	—	3,806	2,720,509	160,829	1,110,573	1,271,402	3,991,911
Others	391,906	2,310,569	9,244,517	—	4,281,451	16,228,443	118,722	9,734,095	9,852,817	26,081,260
	391,906	2,521,313	11,750,476	—	4,285,257	18,948,952	279,551	10,844,668	11,124,219	30,073,171
	₩ 6,301,456	12,853,986	157,623,310	1,448,906	4,577,358	182,805,016	10,099,105	42,842,140	52,941,245	235,746,261

Credit exposures of debt securities by credit rating as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021			
	Carrying amounts	12-month expected credit loss	Lifetime expected credit losses: Non credit-impaired	Lifetime expected credit losses: Credit-impaired
AAA ~ BBB1	₩ 20,901,797	20,559,403	342,394	—
BBB2 ~ CCC	31,088	21,067	10,021	—
Below CC	—	—	—	—
	₩ 20,932,885	20,580,470	352,415	—

49. Risk Management, Continued

	December 31, 2020			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
AAA ~ BBB1	₩ 20,015,223	19,837,158	178,065	—
BBB2 ~ CCC	46,251	36,205	10,046	—
Below CC	—	—	—	—
	₩ 20,061,474	19,873,363	188,111	—

(3) Capital management activities

(i) Capital adequacy

The FSS approved the Bank's use of the Foundation Internal Ratings-Based Approach in July 2008. The Bank has been using the same approach when calculating credit risk-weighted assets since the end of June 2008. The equity capital ratio and equity capital according to the standards of the Bank for International Settlements are calculated for such disclosure. The equity capital ratio and equity capital are calculated on a consolidated basis. In conformity with the Banking Act, which is based on the implementation of Basel III on December 1, 2013, the regulatory capital is divided into the following two categories.

Tier 1 capital

- Common Equity Tier 1

Regulatory capital that represents the most subordinated claim in liquidation of the Bank, takes the first and proportionately greatest share of any losses as they occur, and which principal is never repaid outside of liquidation meets the criteria for classification as common equity, including capital stock, capital surplus, retained earnings and accumulated other comprehensive income as common equity Tier 1.

- Additional Tier 1 capital

Capital stock and capital surplus related to issuance of capital securities that are subordinated, have non-cumulative and conditional dividends or interests, and have no maturity or step-up conditions.

Tier 2 capital (Supplementary Tier 2 capital)

Regulatory capital that fulfills supplementary capital adequacy requirements, and includes subordinated debt with maturities over 5 years and allowance for loan losses in conformity with external regulatory standards and internal standards.

49. Risk Management, Continued

The BIS capital adequacy ratio and capital in accordance to Basel III standards as of June 30, 2021 and December 31, 2020 are as follows:

BIS capital adequacy ratio

	June 30, 2021	December 31, 2020
Equity capital based on BIS (A):		
Tier 1 capital:		
Common Equity Tier 1	₩ 45,527,997	36,021,786
Additional Tier 1 capital	—	—
	45,527,997	36,021,786
Tier 2 capital	3,406,176	4,312,476
	₩ 48,934,173	40,334,262
Risk-weighted assets (B):		
Credit risk-weighted assets	₩ 299,499,823	246,279,611
Market risk-weighted assets	1,930,386	1,490,013
Operational risk-weighted assets	6,522,832	4,880,008
	₩ 307,953,041	252,649,632
BIS capital adequacy ratio (A/B):	15.89%	15.96%
Tier 1 capital ratio:	14.78%	14.26%
Common Equity Tier 1 ratio	14.78%	14.26%
Additional Tier 1 capital ratio	—	—
Tier 2 capital ratio	1.11%	1.71%

Equity capital based on BIS

	June 30, 2021	December 31, 2020
Tier 1 capital (A):		
Common Equity Tier 1		
Capital stock	₩ 21,886,559	20,765,729
Capital surplus, etc.	1,030,452	1,036,196
Retained earnings	14,763,294	12,326,526
Accumulated other comprehensive income	8,479,619	2,324,417
Common stock deductibles	(631,927)	(431,082)
	45,527,997	36,021,786
Tier 2 capital (B):		
Allowance for doubtful accounts, etc.	537,147	1,057,559
Qualified capital securities	2,652,000	2,780,000
Non-qualified capital securities	258,060	516,119
Additional stock deductibles	(41,031)	(41,202)

49. Risk Management, Continued

	3,406,176	4,312,476
Equity capital (A+B)	₩ 48,934,173	40,334,262

(4) Market risk

(i) Concept

Market risk is defined as the possibility of potential loss resulting from fluctuations in interest rates, foreign exchange rates and the price of stocks and commodities. Trading position is exposed to risks, such as interest rate, stock price, and foreign exchange rate, etc. Non-trading position is mostly exposed to interest rates. Accordingly, the Bank classifies market risks into those exposed from trading position or those exposed from non-trading position.

(ii) Market risks of trading positions

Management method on market risks arising from trading positions

In estimating market risk, the Standardized Approach and the internal model are used. The Standardized Approach is used to calculate the required capital from market risk and the internal model is used to manage risks internally. Since July 2007, the Bank has measured one-day VaR through the historical simulation method using the time series data of past 250 days under a 99% confidence level. The calculated VaR is monitored daily.

The Bank sets total limit of market risk based on annual business plan, risk appetite and others and monitors VaR limit of each department on a daily basis.

Capital Requirements for Market risk

The Bank's Capital Requirements for Market risk as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
Interest rate risk	₩ 82,521	45,739
Equity risk	620	—
Foreign exchange (FX) risk	24,960	32,118
Option risk	29,437	30,055
	₩ 137,538	107,912

(iii) Market risks of non-trading positions

Management method on market risks arising from non-trading positions

The most critical market risk that arises in non-trading position is the interest rate risk. Interest rate risk is defined as the likely loss resulting from the unfavorable fluctuation of interest rate in the Bank's financial condition and is measured by interest rate VaR and interest rate EaR.

49. Risk Management, Continued

Interest rate VaR is the maximum amount of decrease in net asset value resulting from the unfavorable fluctuation of interest rate. Interest rate EaR is the maximum amount of decrease in net interest income resulting from the unfavorable fluctuation of interest rate for a year.

The Bank's interest rate VaR and interest rate EaR are measured through the simulation of conclusive interest rate scenario and are periodically reported to the Risk Management Policy Committee and the head of Risk Management Segment. The Risk Management Committee's target of interest rate VaR and interest rate EaR are approved at the beginning of the year. To disclose the Bank's interest risk, interest rate VaR and interest rate EaR are disclosed calculating change in economic value of equity ("△EVE") and in net interest income ("△NII") based on the application of IRRBB ("Interest Rate Risk in Banking Book") method.

△EVE and △NII of the Bank's non-trading positions as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021	December 31, 2020
△EVE	₩ 714,541	461,158
△NII	135,027	90,081

(iv) Foreign currency risk

Outstanding balances by currency with significant exposure as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021						
	KRW	USD	EUR	JPY	GBP	Others	Total
Financial assets:							
Cash and due from banks	₩ 4,776,770	6,163,509	41,251	33,048	21,492	233,185	11,269,255
Securities measured at FVTPL	9,575,239	625,624	—	855	—	71,054	10,272,772
Securities measured at FVOCI	36,247,144	5,323,108	25	259,038	—	181,191	42,010,506
Securities measured at amortized cost	2,417,134	—	—	—	—	—	2,417,134
Loans measured at FVTPL	696,048	5,240	—	—	—	—	701,288
Loans measured at amortized cost	120,613,307	36,510,224	2,534,041	1,187,795	636,436	1,412,733	162,894,536
Derivative financial assets	3,653,695	1,375,258	60,455	809	34,416	21,488	5,146,121
Other financial assets	5,537,172	2,238,767	239,704	41,667	120,867	1,309,555	9,487,732
	183,516,509	52,241,730	2,875,476	1,523,212	813,211	3,229,206	244,199,344
Financial liabilities:							
Financial liabilities measured at FVTPL	1,774,006	118,702	—	—	—	—	1,892,708
Deposits	39,885,211	8,652,354	45,454	290,826	69	1,305	48,875,219
Borrowings	6,413,661	13,199,181	148,661	610,377	158	603,857	20,975,895
Debentures	108,891,048	24,922,262	1,922,846	737,684	827,947	6,074,176	143,375,963
Derivative financial liabilities	2,739,492	875,461	5,814	4,750	10,752	16,904	3,653,173
Other financial liabilities	5,871,511	3,038,387	297,263	54,200	122,232	1,367,534	10,751,127
	165,574,929	50,806,347	2,420,038	1,697,837	961,158	8,063,776	229,524,085
Net financial position	₩ 17,941,580	1,435,383	455,438	(174,625)	(147,947)	(4,834,570)	14,675,259

49. Risk Management, Continued

	December 31, 2020						
	KRW	USD	EUR	JPY	GBP	Others	Total
Financial assets:							
Cash and due from banks	₩ 4,523,911	5,783,607	34,968	71,912	17,964	96,616	10,528,978
Securities measured at FVTPL	7,779,699	488,359	—	316	—	52,257	8,320,631
Securities measured at FVOCI	28,868,837	5,018,056	25	206,249	—	48,158	34,141,325
Securities measured at amortized cost	785,264	—	—	—	—	—	785,264
Loans measured at FVTPL	1,429,258	5,256	—	—	—	—	1,434,514
Loans measured at amortized cost	117,661,851	32,590,755	1,977,320	1,281,467	434,845	1,353,940	155,300,178
Derivative financial assets	6,395,927	1,736,642	86,654	353	72,523	37,277	8,329,376
Other financial assets	3,034,997	877,574	230,329	12,274	32,848	275,704	4,463,726
	170,479,744	46,500,249	2,329,296	1,572,571	558,180	1,863,952	223,303,992
Financial liabilities:							
Financial liabilities measured at FVTPL	1,578,544	116,413	—	—	—	—	1,694,957
Deposits	37,674,768	7,870,846	26,068	305,890	85	1,762	45,879,419
Borrowings	6,092,647	11,794,352	160,347	679,535	—	160,730	18,887,611
Debentures	107,496,854	21,485,451	1,923,888	674,748	818,290	5,919,497	138,318,728
Derivative financial liabilities	5,103,794	1,122,091	10,475	6,639	32,574	29,714	6,305,287
Other financial liabilities	3,831,466	2,630,783	73,055	13,336	26,678	321,263	6,896,581
	161,778,073	45,019,936	2,193,833	1,680,148	877,627	6,432,966	217,982,583
Net financial position	₩ 8,701,671	1,480,313	135,463	(107,577)	(319,447)	(4,569,014)	5,321,409

(5) Liquidity risk management

(i) Concept

Liquidity risk is defined as the possibility of potential loss due to a temporary shortage in funds caused by a maturity mismatch or an unexpected capital outlay. Liquidity risk soars when funding rates rise, assets are sold below a normal price, or a good investment opportunity is missed.

(ii) Approach to liquidity risk management

The Bank manages its liquidity risks as follows:

Allowable limit for liquidity risk

- The allowable limit for liquidity risk sets LCR, NSFR and Mid- to long-term foreign currency fund management ratio
- The management standards with regards to the allowable limit for liquidity risk should be set using separate and stringent set ratios in accordance with the FSS guidelines.

49. Risk Management, Continued

<Measurement Methodology>

- LCR: (High quality liquid assets / Total net cash outflows over the next 30 calendar days) X 100
- NSFR: Available Stable Funding / Required Stable Funding X 100
- Mid- to long-term foreign currency fund management ratio: Foreign currency funding being repaid after 1 year / Foreign currency lending being collected after 1 year X 100

Early warning indicator

To identify prematurely and cope with worsening liquidity risk trends, the Bank has set up 15 indexes such as the "Foreign Exchange Stabilization Bond CDS Premium," and measures the trend monthly as a means for establishing the allowable liquidity risk limit complementary measures.

Stress-Test analysis and contingency plan

- The Bank evaluates the effects on the liquidity risk and identifies the inherent flaws. In the case where an unpredictable and significant liquidity crisis occurs, the Bank executes risk situation analysis quarterly based on crisis specific to the Bank, market risk and complex emergency, and reports to the Risk Management Committee for the Bank's solvency securitization.
- The Bank established detailed contingency plan to manage the liquidity risks at every risk situations.

(iii) Analysis on remaining contractual maturity of financial instruments

Remaining contractual maturity risks of non-derivative financial instruments including interest payment as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Financial assets:						
Cash and due from banks	₩ 9,158,104	93,636	581,486	754,482	—	10,587,708
Securities measured at FVTPL	36,619	57,413	1,769,342	2,052,045	8,935,694	12,851,113
Securities measured at FVOCI	728,887	1,580,952	4,000,385	10,782,740	13,926,470	31,019,434
Securities measured at amortized cost	—	170,000	690,000	610,000	—	1,470,000
Loans	12,942,089	20,029,586	49,466,396	63,251,891	14,939,395	160,629,357
Other financial assets	6,865,304	—	—	—	1,238,201	8,103,505
	₩ 29,731,003	21,931,587	56,507,609	77,451,158	39,039,760	224,661,117

49. Risk Management, Continued

	June 30, 2021					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Financial liabilities:						
Financial liabilities measured at FVTPL	₩ 25,852	102,214	677,280	300,606	224,659	1,330,611
Deposits	24,742,126	6,321,471	14,484,247	3,207,806	113,484	48,869,134
Borrowings	3,489,272	5,268,002	8,236,988	2,832,432	1,132,152	20,958,846
Debentures	5,359,025	10,916,270	43,537,667	76,871,577	6,918,239	143,602,778
Other financial liabilities	8,600,763	1,744,406	—	—	459,562	10,804,731
	₩ 42,217,038	24,352,363	66,936,182	83,212,421	8,848,096	225,566,100

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Financial assets:						
Cash and due from banks	₩ 9,137,776	91,051	464,395	760,273	21,263	10,474,758
Securities measured at FVTPL	136,016	124,287	915,490	1,883,117	8,107,999	11,166,909
Securities measured at FVOCI	553,784	1,025,117	4,845,370	11,070,430	13,737,878	31,232,579
Securities measured at amortized cost	—	—	210,000	570,000	—	780,000
Loans	9,232,537	13,540,396	56,829,822	60,814,868	14,671,105	155,088,728
Other financial assets	3,831,145	—	—	—	705,630	4,536,775
	₩ 22,891,258	14,780,851	63,265,077	75,098,688	37,243,875	213,279,749
Financial liabilities:						
Financial liabilities measured at FVTPL	₩ 49,541	—	500,167	605,760	238,914	1,394,382
Deposits	22,271,587	6,814,661	12,791,098	3,881,550	109,333	45,868,229
Borrowings	3,873,926	3,441,014	7,757,486	2,688,791	1,125,536	18,886,753
Debentures	4,822,104	10,036,440	45,530,833	70,427,784	7,428,100	138,245,261
Other financial liabilities	4,110,621	1,766,297	—	—	1,074,478	6,951,396
	₩ 35,127,779	22,058,412	66,579,584	77,603,885	9,976,361	211,346,021

49. Risk Management, Continued

Remaining contractual maturity risks of derivative financial instruments as of June 30, 2021 and December 31, 2020 are as follows:

Net settlement of derivative financial instruments

	June 30, 2021					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Trading purpose derivatives:						
Currency	₩ (336)	—	—	—	—	(336)
Interest rate	6,950	(21,778)	(22,859)	(161,736)	468,586	269,163
Stock	4	—	—	—	—	4
Hedging purpose derivatives:						
Interest rate	98,918	128,691	256,954	668,001	619,003	1,771,567
	₩ 105,536	106,913	234,095	506,265	1,087,589	2,040,398

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Trading purpose derivatives:						
Currency	₩ (2,240)	259	—	—	—	(1,981)
Interest rate	(12,099)	(8,965)	(21,956)	(154,170)	311,267	114,077
Hedging purpose derivatives:						
Interest rate	60,484	118,050	397,587	679,232	596,098	1,851,451
	₩ 46,145	109,344	375,631	525,062	907,365	1,963,547

Gross settlement of derivative financial instruments

	June 30, 2021					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Trading purpose derivatives:						
Currency						
Inflow	₩ 48,801,717	39,919,528	66,031,885	83,717,112	8,769,291	247,239,533
Outflow	48,420,722	39,894,034	65,834,405	83,805,021	8,806,267	246,760,449
Hedging purpose derivatives:						
Currency						
Inflow	1,811,193	2,179,933	1,966,090	16,606,973	2,319,898	24,884,087
Outflow	1,794,614	2,178,794	2,347,443	17,428,848	2,308,370	26,058,069
Total inflow	₩ 50,612,910	42,099,461	67,997,975	100,324,085	11,089,189	272,123,620
Total outflow	₩ 50,215,336	42,072,828	68,181,848	101,233,869	11,114,637	272,818,518

49. Risk Management, Continued

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Trading purpose derivatives:						
Currency						
Inflow	₩ 41,628,937	28,120,676	70,926,683	68,814,581	7,423,977	216,914,854
Outflow	41,747,705	28,165,683	71,251,634	68,700,868	7,415,793	217,281,683
Hedging purpose derivatives:						
Currency						
Inflow	126,703	743,865	5,321,106	15,865,301	1,175,969	23,232,944
Outflow	235,842	868,872	5,398,633	16,129,256	1,162,943	23,795,546
Total inflow	₩ 41,755,640	28,864,541	76,247,789	84,679,882	8,599,946	240,147,798
Total outflow	₩ 41,983,547	29,034,555	76,650,267	84,830,124	8,578,736	241,077,229

Remaining contractual maturity risks of guarantees and commitments as of June 30, 2021 and December 31, 2020 are as follows:

	June 30, 2021					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Guarantees	₩ 1,303,086	1,651,849	2,785,263	6,196,066	410,002	12,346,266
Commitments	124,812	99,341	472,460	2,217,918	41,540,618	44,455,149
	₩ 1,427,898	1,751,190	3,257,723	8,413,984	41,950,620	56,801,415

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Guarantees	₩ 1,289,198	981,555	2,624,952	4,693,645	509,755	10,099,105
Commitments	73,583	79,569	762,853	1,751,963	42,194,766	44,862,734
	₩ 1,362,781	1,061,124	3,387,805	6,445,608	42,704,521	54,961,839

THE REPUBLIC OF KOREA

The Economy

Gross Domestic Product

Based on preliminary data, GDP growth in the first nine months of 2021 was 4.0% at chained 2015 year prices, primarily due to an increase in exports of goods and services by 11.1% and an increase in aggregate private and general government consumption expenditures by 3.2%, the effect of which was offset in part by an increase in imports of goods and services by 8.0%, each compared with the corresponding period of 2020.

Principal Sectors of the Economy

Prices, Wages and Employment

Based on preliminary data, the inflation rate was 2.1% and the unemployment rate was 3.9% in the first nine months of 2021.

The Financial System

Securities Markets

The Korea Composite Stock Price Index was 3,296.7 on June 30, 2021, 3,202.3 on July 30, 2021, 3,199.3 on August 31, 2021, 3,068.8 on September 30, 2021, 2,970.7 on October 29, 2021, 2,839.0 on November 30, 2021, 2,977.7 on December 30, 2021, 2,663.3 on January 28, 2022 and 2,676.5 on February 15, 2022.

Monetary Policy

Interest Rates

The Bank of Korea raised its policy rate from 0.50% to 0.75% on August 26, 2021, to 1.00% on November 25, 2021, and to 1.25% on January 14, 2022, in response to rising levels of household debt and inflationary pressures.

Foreign Exchange

The market average exchange rate between the Won and the U.S. Dollar (in Won per one U.S. Dollar) as announced by the Seoul Money Brokerage Service Ltd. was Won 1,130.0 to US$1.00 on June 30, 2021, Won 1,147.4 to US$1.00 on July 30, 2021, Won 1,164.4 to US$1.00 on August 31, 2021, Won 1,184.9 to US$1.00 on September 30, 2021, Won 1,171.7 to US$1.00 on October 29, 2021, Won 1,193.4 to US$1.00 on November 30, 2021, Won 1,185.5 to US$1.00 on December 31, 2021, Won 1,202.4 to US$1.00 on January 28, 2022 and Won 1,198.3 to US$1.00 on February 15, 2022.

Balance of Payments and Foreign Trade

Balance of Payments

Based on preliminary data, the Republic recorded a current account surplus of US$70.1 billion in the first nine months of 2021. The current account surplus in the first nine months of 2021 increased from the current account surplus of US$43.0 billion in the corresponding period of 2020, primarily due to a decrease in deficit from the services account, and to a lesser extent, increases in surpluses from the income account and the goods account.

Trade Balance

Based on preliminary data, the Republic recorded a trade surplus of US$25.3 billion in the first nine months of 2021. Exports increased by 26.2% to US$467.7 billion in the first nine months of 2021 from US$370.6 billion in the corresponding period of 2020, primarily due to an improvement in the domestic economic conditions of the Republic's major trading partners. Imports increased by 28.6% to US$442.5 billion in the first nine months of 2021 from US$344.0 billion in the corresponding period of 2020, primarily due to an increase in domestic production and an improvement in consumer sentiment reflecting gradual recovery from the COVID-19 pandemic.

Foreign Currency Reserves

The amount of the Government's foreign currency reserves was US$461.5 billion as of January 31, 2022.

Government Finance

As part of the Government's continued efforts to mitigate the adverse effects of the ongoing global outbreak of the COVID-19 pandemic on the Korean economy, the National Assembly approved the second supplementary budget of 2021 amounting to Won 34.9 trillion in July 2021. The second supplementary budget, most of which was funded through the Government's excess tax revenue, has been used mainly for the following purposes: (i) provision of relief packages, including support for small businesses and direct payments to eligible individuals, (ii) various forms of financial support for local communities through subsidies, (iii) purchases of vaccines and disease prevention and treatment efforts and (iv) employment support and aid for low-income households.

In December 2021, the National Assembly approved the Republic's budget for 2022 in the amount of Won 607.7 trillion, a significant portion of which is expected to be used for measures to continue to mitigate the adverse effects of the COVID-19 pandemic on the Korean economy. As of the date of this prospectus supplement, the Republic's plans to return to life as normal have been put on hold in light of the surge in the number of new daily cases of COVID-19 infections in recent months as well as the ongoing spread of the new Omicron variant of COVID-19.

For further information regarding the COVID-19 pandemic and the Republic's past budgets (including supplementary budgets), see "The Republic of Korea—The Economy—Worldwide Economic and Financial Difficulties" and "The Republic of Korea—Government Finance" in the accompanying prospectus.

DESCRIPTION OF THE NOTES

The following is a description of some of the terms of the Notes we are offering. Since it is only a summary, we urge you to read the fiscal agency agreement described below and the forms of global note before deciding whether to invest in the Notes. We have filed a copy of these documents with the United States Securities and Exchange Commission as exhibits to the registration statement no. 333-246071.

The general terms of our Notes are described in the accompanying prospectus. The description in this prospectus supplement further adds to that description or, to the extent inconsistent with that description, replaces it.

Governed by Fiscal Agency Agreement

We will issue the 2025 Notes and the 2027 Notes under the fiscal agency agreement, dated as of February 15, 1991, as amended and supplemented from time to time, between us and The Bank of New York (now The Bank of New York Mellon), as fiscal agent (the Fiscal Agency Agreement). The fiscal agent will maintain a register for the Notes.

Payment of Principal and Interest

The 2025 Notes are initially limited to US$1,000,000,000 aggregate principal amount and the 2027 Notes are initially limited to US$500,000,000 aggregate principal amount. The 2025 Notes will mature on February 24, 2025 (the "2025 Notes Maturity Date") and the 2027 Notes will mature on February 24, 2027 (the "2027 Notes Maturity Date", and together with the 2025 Notes Maturity Date, the "Maturity Dates"). The 2025 Notes will bear interest at the rate of 2.000% per annum and the 2027 Notes will bear interest at the rate of 2.250% per annum, in each case payable semi-annually in arrears on February 24 and August 24 of each year (each, an "Interest Payment Date"), beginning on August 24, 2022. Interest on the Notes will accrue from February 24, 2022. If any Interest Payment Date or any Maturity Date shall be a day on which banking institutions in The City of New York or Seoul are authorized or obligated by law to close, then such payment will not be made on such date but will be made on the next succeeding day which is not a day on which banking institutions in The City of New York or Seoul are authorized or obligated by law to close, with the same force and effect as if made on the date for such payment, and no interest shall be payable in respect of any such delay. We will pay interest to the person who is registered as the owner of a Note at the close of business on the fifteenth day (whether or not a business day) preceding such Interest Payment Date. Interest on the Notes will be computed on the basis of a 360-day year consisting of twelve 30-day months. We will make principal and interest payments on the Notes in immediately available funds in U.S. dollars.

The payment of interest and the repayment of principal on the Notes will not be guaranteed by the Government.

Denomination

The Notes will be issued in minimum denominations of US$200,000 principal amount and integral multiples of US$1,000 in excess thereof.

Redemption

We may not redeem the Notes prior to maturity. At maturity, we will redeem the Notes at par.

Form and Registration

We will issue each series of the Notes in the form of one or more fully registered global notes, registered in the name of a nominee of and deposited with the custodian for DTC. Except as described in the accompanying

prospectus under "Description of the Securities—Description of Debt Securities—Global Securities," the global notes will not be exchangeable for Notes in definitive registered form, and will not be issued in definitive registered form. Financial institutions, acting as direct and indirect participants in DTC, will represent your beneficial interests in the global notes. These financial institutions will record the ownership and transfer of your beneficial interest through book-entry accounts. You may hold your beneficial interests in the Notes through Euroclear or Clearstream if you are a participant in such systems, or indirectly through organizations that are participants in such systems. Any secondary market trading of book-entry interests in the Notes will take place through DTC participants, including Euroclear and Clearstream. See "Clearance and Settlement—Transfers Within and Between DTC, Euroclear and Clearstream."

The fiscal agent will not charge you any fees for the Notes, other than reasonable fees for the replacement of lost, stolen, mutilated or destroyed Notes. However, you may incur fees for the maintenance and operation of the book-entry accounts with the clearing systems in which your beneficial interests are held.

For so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, in the event that any of the global notes are exchanged for Notes in definitive registered form, we will appoint and maintain a paying agent in Singapore, where the certificates representing the Notes may be presented or surrendered for payment or redemption. In addition, in the event that any of the global notes are exchanged for Notes in definitive registered form, an announcement of such exchange will be made through the SGX-ST by or on behalf of us. Such announcement will include all material information with respect to the delivery of the certificates representing the Notes, including details of the paying agent in Singapore.

Further Issues

We may from time to time, without the consent of the holders of the Notes, create and issue additional debt securities with the same terms and conditions as either series of the Notes in all respects so that such further issue shall be consolidated and form a single series with the relevant series of the Notes. We will not issue any such additional debt securities unless such additional securities have less than a de minimis amount of original issue discount or such issuance would otherwise constitute a "qualified reopening" for U.S. federal income tax purposes.

Notices

All notices regarding the Notes will be published in London in the Financial Times and in New York in The Wall Street Journal (U.S. Edition). If we cannot, for any reason, publish notice in any of those newspapers, we will choose an appropriate alternate English language newspaper of general circulation, and notice in that newspaper will be considered valid notice. Notice will be considered made on the first date of its publication.

CLEARANCE AND SETTLEMENT

We have obtained the information in this section from sources we believe to be reliable, including DTC, Euroclear and Clearstream. We accept responsibility only for accurately extracting information from such sources. DTC, Euroclear and Clearstream are under no obligation to perform or continue to perform the procedures described below, and they may modify or discontinue them at any time. Neither we nor the registrar will be responsible for DTC's, Euroclear's or Clearstream's performance of their obligations under their rules and procedures. Nor will we or the registrar be responsible for the performance by direct or indirect participants of their obligations under their rules and procedures.

Introduction

The Depository Trust Company

DTC is:

- a limited-purpose trust company organized under the New York Banking Law;
- a "banking organization" under the New York Banking Law;
- a member of the Federal Reserve System;
- a "clearing corporation" under the New York Uniform Commercial Code; and
- a "clearing agency" registered under Section 17A of the Securities Exchange Act of 1934.

DTC was created to hold securities for its participants and facilitate the clearance and settlement of securities transactions between its participants. It does this through electronic book-entry changes in the accounts of its direct participants, eliminating the need for physical movement of securities certificates.

Euroclear and Clearstream

Like DTC, Euroclear and Clearstream hold securities for their participants and facilitate the clearance and settlement of securities transactions between their participants through electronic book-entry changes in their accounts. Euroclear and Clearstream provide various services to their participants, including the safekeeping, administration, clearance and settlement and lending and borrowing of internationally traded securities. Participants in Euroclear and Clearstream are financial institutions such as underwriters, securities brokers and dealers, banks and trust companies. Some of the underwriters participating in this offering are participants in Euroclear or Clearstream. Other banks, brokers, dealers and trust companies have indirect access to Euroclear or Clearstream by clearing through or maintaining a custodial relationship with a Euroclear or Clearstream participant.

Ownership of the Notes through DTC, Euroclear and Clearstream

We will issue each series of the Notes in the form of one or more fully registered global notes, registered in the name of a nominee of DTC. Financial institutions, acting as direct and indirect participants in DTC, will represent your beneficial interests in the Notes. These financial institutions will record the ownership and transfer of your beneficial interests through book-entry accounts. You may also hold your beneficial interests in the Notes through Euroclear or Clearstream, if you are a participant in such systems, or indirectly through organizations that are participants in such systems. Euroclear and Clearstream will hold their participants' beneficial interests in the global notes in their customers' securities accounts with their depositaries. These depositaries of Euroclear and Clearstream in turn will hold such interests in their customers' securities accounts with DTC.

We and the fiscal agent generally will treat the registered holder of the Notes, initially Cede & Co., as the absolute owner of the Notes for all purposes. Once we and the fiscal agent make payments to the registered

holder, we and the fiscal agent will no longer be liable on the Notes for the amounts so paid. Accordingly, if you own a beneficial interest in the global notes, you must rely on the procedures of the institutions through which you hold your interests in the Notes, including DTC, Euroclear, Clearstream and their respective participants, to exercise any of the rights granted to holders of the Notes. Under existing industry practice, if you desire to take any action that Cede & Co., as the holder of the global notes, is entitled to take, then Cede & Co. would authorize the DTC participant through which you own your beneficial interest to take such action. The participant would then either authorize you to take the action or act for you on your instructions.

DTC may grant proxies or authorize its participants, or persons holding beneficial interests in the Notes through such participants, to exercise any rights of a holder or take any actions that a holder is entitled to take under the Fiscal Agency Agreement or the Notes. Euroclear's or Clearstream's ability to take actions as holder under the Notes or the Fiscal Agency Agreement will be limited by the ability of their respective depositaries to carry out such actions for them through DTC. Euroclear and Clearstream will take such actions only in accordance with their respective rules and procedures.

Transfers Within and Between DTC, Euroclear and Clearstream

Trading Between DTC Purchasers and Sellers

DTC participants will transfer interests in the Notes among themselves in the ordinary way according to DTC rules. Participants will pay for such transfers by wire transfer. The laws of some states require certain purchasers of securities to take physical delivery of the securities in definitive form. These laws may impair your ability to transfer beneficial interests in the global notes to such purchasers. DTC can act only on behalf of its direct participants, who in turn act on behalf of indirect participants and certain banks. Thus, your ability to pledge a beneficial interest in the global notes to persons that do not participate in the DTC system, and to take other actions, may be limited because you will not possess a physical certificate that represents your interest.

Trading Between Euroclear and/or Clearstream Participants

Participants in Euroclear and Clearstream will transfer interests in the Notes among themselves according to the rules and operating procedures of Euroclear and Clearstream.

Trading Between a DTC Seller and a Euroclear or Clearstream Purchaser

When the Notes are to be transferred from the account of a DTC participant to the account of a Euroclear or Clearstream participant, the purchaser must first send instructions to Euroclear or Clearstream through a participant at least one business day prior to the settlement date. Euroclear or Clearstream will then instruct its depositary to receive the Notes and make payment for them. On the settlement date, the depositary will make payment to the DTC participant's account, and the Notes will be credited to the depositary's account. After settlement has been completed, DTC will credit the Notes to Euroclear or Clearstream, Euroclear or Clearstream will credit the Notes, in accordance with its usual procedures, to the participant's account, and the participant will then credit the purchaser's account. These securities credits will appear the next day (European time) after the settlement date. The cash debit from the account of Euroclear or Clearstream will be back-valued to the value date, which will be the preceding day if settlement occurs in New York. If settlement is not completed on the intended value date (i.e., the trade fails), the cash debit will instead be valued at the actual settlement date.

Participants in Euroclear and Clearstream will need to make funds available to Euroclear or Clearstream to pay for the Notes by wire transfer on the value date. The most direct way of doing this is to pre-position funds (i.e., have funds in place at Euroclear or Clearstream before the value date), either from cash on hand or existing lines of credit. Under this approach, however, participants may take on credit exposure to Euroclear and Clearstream until the Notes are credited to their accounts one day later.

As an alternative, if Euroclear or Clearstream has extended a line of credit to a participant, the participant may decide not to pre-position funds, but to allow Euroclear or Clearstream to draw on the line of credit to

finance settlement for the Notes. Under this procedure, Euroclear or Clearstream would charge the participant overdraft charges for one day, assuming that the overdraft would be cleared when the Notes were credited to the participant's account. However, interest on the Notes would accrue from the value date. Therefore, in many cases the interest income on the Notes which the participant earns during that one-day period will substantially reduce or offset the amount of the participant's overdraft charges. Of course, this result will depend on the cost of funds (i.e., the interest rate that Euroclear or Clearstream charges) to each participant.

Since the settlement will occur during New York business hours, a DTC participant selling an interest in the Notes can use its usual procedures for transferring global securities to the depositories of Euroclear or Clearstream for the benefit of Euroclear or Clearstream participants. The DTC seller will receive the sale proceeds on the settlement date. Thus, to the DTC seller, a cross-market sale will settle no differently than a trade between two DTC participants.

Finally, day traders who use Euroclear or Clearstream and who purchase Notes from DTC participants for credit to Euroclear participants or Clearstream participants should note that these trades will automatically fail unless one of three steps is taken:

- borrowing through Euroclear or Clearstream for one day, until the purchase side of the day trade is reflected in the day trader's Euroclear or Clearstream account, in accordance with the clearing system's customary procedures;
- borrowing the Notes in the United States from DTC participants no later than one day prior to settlement, which would allow sufficient time for the Notes to be reflected in the Euroclear or Clearstream account in order to settle the sale side of the trade; or
- staggering the value dates for the buy and sell sides of the trade so that the value date for the purchase from the DTC participant is at least one day prior to the value date for the sale to the Euroclear or Clearstream participant.

Trading Between a Euroclear or Clearstream Seller and a DTC Purchaser

Due to time-zone differences in their favor, Euroclear and Clearstream participants can use their usual procedures to transfer Notes through their depositaries to a DTC participant. The seller must first send instructions to Euroclear or Clearstream through a participant at least one business day prior to the settlement date. Euroclear or Clearstream will then instruct its depositary to credit the Notes to the DTC participant's account and receive payment. The payment will be credited in the account of the Euroclear or Clearstream participant on the following day, but the receipt of the cash proceeds will be back-valued to the value date, which will be the preceding day if settlement occurs in New York. If settlement is not completed on the intended value date (i.e., the trade fails), the receipt of the cash proceeds will instead be valued at the actual settlement date.

If the Euroclear or Clearstream participant selling the Notes has a line of credit with Euroclear or Clearstream and elects to be in debit for the Notes until it receives the sale proceeds in its account, then the back-valuation may substantially reduce or offset any overdraft charges that the participant incurs over that period.

Settlement in other currencies between DTC and Euroclear and Clearstream is possible using free-of-payment transfers to move the Notes, but funds movement will take place separately.

TAXATION

Korean Taxation

For a discussion of certain Korean tax considerations that may be relevant to you if you invest in the Notes, see "Taxation—Korean Taxation" in the accompanying prospectus.

U.S. Federal Income Tax Considerations

For a discussion of certain U.S. federal income tax considerations that may be relevant to you if you are a beneficial owner of the Notes and are a U.S. holder, see "Taxation—U.S. Federal Income Tax Considerations" in the accompanying prospectus.

UNDERWRITING

Relationship with the Underwriters

We and the underwriters named below (the "Underwriters") have entered into a Terms Agreement dated February 16, 2022 (the "Terms Agreement") with respect to the Notes relating to the Underwriting Agreement—Standard Terms (together with the Terms Agreement, the "Underwriting Agreement") filed as an exhibit to the registration statement. Subject to the terms and conditions set forth in the Underwriting Agreement, we have agreed to sell to each of the Underwriters, severally and not jointly, and each of the Underwriters has, severally and not jointly, agreed to purchase, the following principal amount of the Notes set out opposite its name below:

Name of Underwriters	Principal Amount of the 2025 Notes	Principal Amount of the 2027 Notes
BNP Paribas	US$ 142,857,000	US$ 71,428,000
BofA Securities, Inc.	142,858,000	71,432,000
The Hongkong and Shanghai Banking Corporation Limited	142,857,000	71,428,000
J.P. Morgan Securities LLC	142,857,000	71,428,000
KDB Asia Limited	142,857,000	71,428,000
Société Générale	142,857,000	71,428,000
UBS AG Hong Kong Branch	142,857,000	71,428,000
KEXIM Asia Limited	—	—
	US$1,000,000,000	US$500,000,000

KDB Asia Limited, one of the underwriters, is our affiliate and has agreed to offer and sell the Notes only outside the United States to non-U.S. persons.

Under the terms and conditions of the Underwriting Agreement, if the Underwriters take any series of the Notes, then the Underwriters are obligated to take and pay for all of the Notes of such series.

The Underwriters initially propose to offer the Notes directly to the public at the offering price described on the cover page of this prospectus supplement. After the initial offering of the Notes, the Underwriters may from time to time vary the offering price and other selling terms.

If a jurisdiction requires that the offering be made by a licensed broker or dealer and the Underwriters or any affiliate of the Underwriters is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by that Underwriter or its affiliate on our behalf in such jurisdiction.

The Notes are a new class of securities with no established trading market. Approvals in-principle have been received from the SGX-ST for the listing and quotation of the Notes on the SGX-ST. The Underwriters have advised us that they intend to make a market in the Notes. However, they are not obligated to do so and they may discontinue any market making activities with respect to the Notes at any time without notice. Accordingly, we cannot assure you as to the liquidity of any trading market for the Notes.

We have agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or to contribute to payments which the Underwriters may be required to make in respect of any such liabilities.

The amount of our net proceeds from the 2025 Notes is US$993,330,000 after deducting underwriting discounts but not estimated expenses. Expenses associated with the 2025 Notes offering are estimated to be US$100,000. The Underwriters have agreed to pay certain of our expenses incurred in connection with the offering of the 2025 Notes.

The amount of our net proceeds from the 2027 Notes is US$495,945,000 after deducting underwriting discounts but not estimated expenses. Expenses associated with the 2027 Notes offering are estimated to be US$100,000. The Underwriters have agreed to pay certain of our expenses incurred in connection with the offering of the 2027 Notes.

The Underwriters and certain of their affiliates may have performed certain commercial banking, investment banking and advisory services for us and/or our 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 us and/or our affiliates in the ordinary course of their business.

The Underwriters or certain of their affiliates may purchase Notes and be allocated Notes for asset management and/or proprietary purposes but not with a view to distribution. The Underwriters or their respective affiliates may purchase Notes for their own account and enter into transactions, including credit derivatives, such as asset swaps, repackaging and credit default swaps relating to Notes and/or other securities of us or our subsidiaries or affiliates at the same time as the offer and sale of Notes 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 Notes to which this prospectus supplement relates (notwithstanding that such selected counterparties may also be purchasers of Notes).

Delivery of the Notes

We expect to make delivery of the Notes, against payment in same-day funds on or about February 24, 2022, which we expect will be the fifth business day following the date of this prospectus supplement. Under Rule 15c6-1 promulgated under the Securities Exchange Act of 1934, as amended, U.S. purchasers are generally required to settle trades in the secondary market in two business days, unless they and the other parties to any such trade expressly agree otherwise. Accordingly, if you wish to trade in the Notes on any day prior to the second business day from the settlement, because the Notes will initially settle in T+5, you may be required to specify an alternate settlement cycle at the time of your trade to prevent a failed settlement. Purchasers in other countries should consult with their own advisors.

Foreign Selling Restrictions

Each Underwriter has agreed, severally and not jointly, to the following selling restrictions in connection with the offering with respect to the following jurisdictions:

Korea

Each Underwriter has severally represented and agreed that (i) it has not offered, sold or delivered and will not offer, sell or deliver, directly or indirectly, any Notes in Korea, or to, or for the account or benefit of, any resident of Korea, except as otherwise permitted by applicable Korean laws and regulations, and (ii) any securities dealer to whom the Underwriters may sell the Notes will agree that it will not offer any Notes, directly or indirectly, in Korea, or to any resident of Korea, except as permitted by applicable Korean laws and regulations, or to any other dealer who does not so represent and agree.

United Kingdom

Each Underwriter has severally represented and agreed that (i) 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 Financial Services and Markets Act of 2000 (the "FSMA")) received by it in connection with the issue or sale of any Notes in circumstances in which Section 21(1) of the FSMA does not apply to us, and (ii) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Notes in, from or otherwise involving the United Kingdom.

Prohibition of Sales to EEA

Each Underwriter has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus as contemplated by the final terms in relation thereto to any retail investor in the European Economic Area. For the purposes of this provision, the expression "retail investor" means a person who is one (or more) of the following:

(a) a retail client as defined in point (11) of Article 4(1) of MiFID II; or

(b) 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

Prohibition of Sales to UK Retail Investors

Each Underwriter has represented and agreed that it has not offered, sold or otherwise made available and will not offer, sell or otherwise make available any Notes which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus as contemplated by the final terms in relation thereto to any retail investor in the UK. For the purposes of this provision, the expression "retail investor" means a person who is one (or more) of the following:

(a) 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

(b) a customer within the meaning of the provisions of the FSMA and any rules or regulations made under the 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.

Spain

The proposed offer of Notes has not been registered with the Comisión Nacional del Mercado de Valores (the "CNMV"). Accordingly, each of the Underwriters has represented and agreed that Notes can only be offered in Spain to qualified investors pursuant to and in compliance with the consolidated text of the Securities Market Law approved by Spanish Royal Legislative Decree 4/2015, Spanish Royal Decree 1310/2005, both as amended from time to time, and any regulation issued thereunder.

Japan

Each Underwriter has severally represented and agreed that the Notes 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 Underwriter has severally represented and agreed that it has not, directly or indirectly, offered or sold and will not, directly or indirectly, offer or sell any Notes 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 organized under the laws of Japan) or to others for re-offering or re-sale, 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.

Hong Kong

Each Underwriter has severally represented and agreed that:

- it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Notes other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571)

of Hong Kong (the "SFO") and any rules made under the SFO; or (b) 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

- 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 Notes, 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 Notes 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.

Singapore

Each Underwriter has acknowledged that this prospectus supplement and the accompanying prospectus have not been and will not be registered as a prospectus with the Monetary Authority of Singapore under the Securities and Futures Act 2001 of Singapore (the "SFA").

Accordingly, each Underwriter has severally represented and agreed that it has not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes 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 prospectus supplement or the accompanying prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor under Section 274 of the SFA; (ii) to a relevant person pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA and (where applicable) Regulation 3 of the Securities and Futures (Classes of Investors) Regulations 2018 of Singapore; or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Notes are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor or to a relevant person defined in Section 275(2) of the SFA or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018 of Singapore.

Notification under Section 309B(1)(c) of the SFA — We have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA), that the Notes are prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore) and Excluded 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).

Australia

No prospectus or other disclosure document (as defined in the Corporations Act 2001 of Australia) in relation to the offering of the Notes has been or will be lodged with or registered by Australian Securities and Investments Commission or the Australian Securities Exchange Limited. Each Underwriter has represented and agreed that it has not:

(a) made or invited, and will not make or invite, an offer of the Notes for issue or sale in Australia (including an offer or invitation which is received by a person in Australia); and

(b) distributed or published and will not distribute or publish any draft, preliminary or final form offering memorandum, advertisement or other offering material relating to the Notes in Australia,

unless:

(i) the minimum aggregate consideration payable by each offeree is at least AUD 500,000 (or its equivalent in an alternate currency) (disregarding money lent by the offeror or its associates) or the offer otherwise does not require disclosure to investors in accordance with Part 6D.2 and Part 7 of the Corporations Act 2001 of Australia; and

(ii) such action complies with all applicable laws, directives and regulations and does not require any document to be lodged with, or registered by, the Australian Securities and Investments Commission.

Each Underwriter has agreed that it will not sell the Notes in circumstances where employees of the Underwriter aware of, or involved in, the sale know, or have reasonable grounds to suspect, that the Notes, or an interest in or right in respect of the Notes, was being, or would later be, acquired either directly or indirectly by a resident of Australia, or a non-resident who is engaged in carrying on business in Australia at or through a permanent establishment of that non-resident in Australia (the expressions "resident of Australia", "non-resident" and "permanent establishment" having the meanings given to them by the Australian Tax Act).

Canada

Prospective Canadian investors are advised that the information contained within the preliminary prospectus and prospectus 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 the preliminary prospectus and prospectus and as to the suitability of an investment in the Notes in their particular circumstances.

Each Underwriter has severally represented and agreed that the Notes may only be offered or sold in the provinces of Alberta, British Columbia, Ontario and Québec or to or for the benefit of a resident of these provinces pursuant to an exemption from the requirement to file a prospectus in such province in which such offer or sale is made, and only by a dealer duly registered under the applicable securities laws of that province or by a dealer that is relying in that province on the "international dealer" exemption provided by section 8.18 of National Instrument 31-103 *Registration Requirements*, *Exemptions and Ongoing Registrant Obligations* (NI 31-103). Furthermore, the Notes may only be offered or sold to or for the benefit of a resident of any such province provided that such resident is both an "accredited investor" as defined in National Instrument 45-106 *Prospectus Exemptions* (NI 45-106) or subsection 73.3 (1) of the *Securities Act* (Ontario) and a "permitted client"

as defined in NI 31-103. By purchasing any Notes and accepting delivery of a purchase confirmation a purchaser is representing to the underwriters and the dealer from whom the purchase confirmation is received that it is an "accredited investor" and "permitted client" as defined above. The distribution of the Notes in Canada is being made on a private placement basis only and any resale of the Notes must be made in accordance with applicable Canadian securities laws, which will vary depending on the relevant jurisdiction, and which may require resales to be made in accordance with prospectus and registration requirements or exemptions from the prospectus and registration requirements.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this preliminary prospectus or prospectus (including any amendment hereto) 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 advisor.

Under Canadian securities law, National Instrument 33-105 *Underwriting Conflicts* (NI 33-105) provides disclosure requirements with respect to potential conflicts of interest between an issuer and underwriters, dealers or placement agents, as the case may be. To the extent any conflict of interest between us and any of the Underwriters (or any other placement agent acting in connection with this offering) may exist in respect of this offering, the applicable parties to this offering are relying on the exemption from these disclosure requirements provided to them by section 3A.3 of NI 33-105 (exemption based on U.S. disclosure).

Upon receipt of this prospectus, each Canadian purchaser hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the securities described herein (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. *Par la réception de ce prospectus, 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.*

Price Stabilization and Short Position

In connection with this offering, any of the Underwriters appointed and acting in its capacity as stabilizing manager (the "Stabilizing Manager") or any person acting for it, on behalf of the Underwriters, may purchase and sell the Notes in the open market. These transactions may include over-allotment, covering transactions, penalty bids and stabilizing transactions. Over-allotment involves sales of the Notes in excess of the principal amount of Notes to be purchased by the Underwriters in this offering, which creates a short position for the Underwriters. Covering transactions involve purchases of the Notes in the open market after the distribution has been completed in order to cover short positions. A penalty bid occurs when a particular Underwriter repays to the Underwriters a portion of the underwriting discount received by it because the Underwriters or the Stabilizing Manager has repurchased Notes sold by or for the account of such Underwriter in stabilizing or short covering transactions. Stabilizing transactions consist of certain bids or purchases of Notes in the open market for the purpose of preventing or retarding a decline in the market price of the Notes while the offering is in progress. Any of these activities may have the effect of preventing or retarding a decline in the market price of the Notes. They may also cause the price of the Notes to be higher than the price that otherwise would exist in the open market in the absence of these transactions. The Stabilizing Manager may conduct these transactions in the over-the-counter market or otherwise. If the Stabilizing Manager commences any of these transactions, it may discontinue them at any time, and must discontinue them after a limited period.

LEGAL MATTERS

The validity of the Notes is being passed upon for us by Cleary Gottlieb Steen & Hamilton LLP, New York, New York, and by Lee & Ko, Seoul, Korea. Certain legal matters will also be passed upon for the Underwriters by Linklaters LLP, Seoul, Korea. In giving their opinions, Cleary Gottlieb Steen & Hamilton LLP and Linklaters LLP may rely as to matters of Korean law upon the opinion of Lee & Ko, and Lee & Ko may rely as to matters of New York law upon the opinions of Cleary Gottlieb Steen & Hamilton LLP.

OFFICIAL STATEMENTS AND DOCUMENTS

Our Chief Executive Officer and Chairman of the Board of Directors, in his official capacity, has supplied the information set forth in this prospectus supplement under "Recent Developments—The Korea Development Bank." Such information is stated on his authority. The documents identified in the portion of this prospectus supplement captioned "Recent Developments—The Republic of Korea" as the sources of financial or statistical data are derived from official public documents of the Republic and of its agencies and instrumentalities.

GENERAL INFORMATION

We were established in 1954 as a government-owned financial institution pursuant to The Korea Development Bank Act, as amended. The address of our registered office is 14, Eunhaeng-ro, Yeongdeungpo-gu, Seoul 07242, The Republic of Korea.

Our Board of Directors can be reached at the address of our registered office: c/o 14, Eunhaeng-ro, Yeongdeungpo-gu, Seoul 07242, The Republic of Korea.

The issue of the Notes has been authorized by a resolution of our Board of Directors passed on December 22, 2021 and a decision of our Chief Executive Officer and Chairman of the Board of Directors dated January 27, 2022. On February 7, 2022, we filed our reports on the proposed issuance of the Notes with the Ministry of Economy and Finance of Korea.

The registration statement with respect to us and the Notes has been filed with the U.S. Securities and Exchange Commission in Washington, D.C. under the Securities Act of 1933, as amended. Additional information concerning us and the Notes is contained in the registration statement and post-effective amendments to such registration statement, including their various exhibits, which may be inspected at the public reference facilities maintained by the Securities and Exchange Commission at Room 1580, 100 F Street N.E., Washington, D.C. 20549, United States.

The Notes have been accepted for clearance through DTC, Euroclear and Clearstream:

	ISIN	CUSIP
2025 Notes	US500630DQ87	500630 DQ8
2027 Notes	US500630DR60	500630 DR6

PROSPECTUS

$9,547,380,000

The Korea Development Bank

Debt Securities
Warrants to Purchase Debt Securities
Guarantees

The Republic of Korea

Guarantees

We will provide the specific terms of these securities in supplements to this prospectus. You should read this prospectus and any prospectus supplement carefully before you invest.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus is dated July 2, 2021

TABLE OF CONTENTS

	Page
CERTAIN DEFINED TERMS AND CONVENTIONS	1
USE OF PROCEEDS	2
THE KOREA DEVELOPMENT BANK	3
Overview	3
Capitalization	5
Business	6
Selected Financial Statement Data	8
Operations	15
Sources of Funds	22
Debt	24
Overseas Operations	25
Property	26
Directors and Management; Employees	26
Tables and Supplementary Information	26
Financial Statements and the Auditors	33
THE REPUBLIC OF KOREA	170
Land and History	170
Government and Politics	172
The Economy	175
Principal Sectors of the Economy	184
The Financial System	191
Monetary Policy	196
Balance of Payments and Foreign Trade	200
Government Finance	208
Debt	210
Tables and Supplementary Information	213
DESCRIPTION OF THE SECURITIES	216
Description of Debt Securities	216
Description of Warrants	223
Terms Applicable to Debt Securities and Warrants	223
Description of Guarantees to be Issued by Us	224
Description of Guarantees to be Issued by The Republic of Korea	225
LIMITATIONS ON ISSUANCE OF BEARER DEBT SECURITIES AND BEARER WARRANTS	226
TAXATION	227
Korean Taxation	227
U.S. Federal Income Tax Considerations	229
PLAN OF DISTRIBUTION	237
LEGAL MATTERS	238
AUTHORIZED REPRESENTATIVES IN THE UNITED STATES	238
OFFICIAL STATEMENTS AND DOCUMENTS	238
EXPERTS	238
FORWARD-LOOKING STATEMENTS	239
FURTHER INFORMATION	241

CERTAIN DEFINED TERMS AND CONVENTIONS

All references to the "Bank", "we", "our" or "us" mean The Korea Development Bank. All references to "Korea" or the "Republic" contained in this prospectus mean The Republic of Korea. All references to the "Government" mean the government of Korea.

Unless otherwise indicated, all references to "won", "Won" or "₩" contained in this prospectus are to the currency of Korea, references to "U.S. dollars", "Dollars", "$", "USD" or "US$" are to the currency of the United States of America, references to "Euro", "EUR" or "€" are to the currency of the European Union, references to "Japanese Yen", "JPY" or "¥" are to the currency of Japan, references to "Singapore dollar" or "SGD" are to the currency of Singapore, references to "Swiss franc" or "CHF" are to the currency of Switzerland, references to "pound sterling", "GBP" or "£" are to the currency of the United Kingdom, references to "Chinese offshore renminbi" or "CNH" are to the currency of the People's Republic of China traded outside of mainland China, references to "Hong Kong dollar" or "HKD" are to the currency of Hong Kong, S.A.R., references to "Mexican Peso" or "MXN" are to the currency of the United Mexican States, references to "Thai Bhat" or "THB" are to the currency of Thailand, references to "Australian dollar" or "AUD" are to the currency of Australia, references to "Norwegian krone" or "NOK" are to the currency of Norway, references to "Brazilian real" or "BRL" are to the currency of the Federative Republic of Brazil, references to "Indonesian Rupiah" or "IDR" are to the currency of Indonesia, references to "Indian Rupee" or "INR" are to the currency of India and references to "Swedish Krona" or "SEK" are to the currency of Sweden.

All discrepancies in any table between totals and the sums of the amounts listed are due to rounding.

Our separate financial information as of and for the years ended December 31, 2020 and 2019 included in this prospectus has been prepared in accordance with International Financial Reporting Standards as adopted in Korea, or Korean IFRS or K-IFRS. References in this prospectus to "separate" financial statements and information are to financial statements and information prepared on a non-consolidated basis. Unless specified otherwise, our financial and other information included in this prospectus is presented on a separate basis in accordance with Korean IFRS and does not include such information with respect to our subsidiaries. KDB Financial Group, or KDBFG, a financial holding company, and Korea Finance Corporation, or KoFC, a public policy financing vehicle and the parent company of KDBFG, both of which had originally been established by spinning off a portion of our assets, liabilities and equity in October 2009, merged with and into us on December 31, 2014.

USE OF PROCEEDS

Unless otherwise specified in the applicable prospectus supplement, we will use the net proceeds from the sale of the securities for our general operations.

THE KOREA DEVELOPMENT BANK

Overview

We were established in 1954 as a government-owned financial institution pursuant to The Korea Development Bank Act, as amended, or the KDB Act. Since our establishment, we have been the leading bank in the Republic with respect to the provision of long-term financing for projects designed to assist the nation's economic growth and development. The Government directly owns all of our paid-in capital. Our registered office is located at 14, Eunhaeng-ro, Yeongdeungpo-gu, Seoul, The Republic of Korea. Our primary purpose, as stated in the KDB Act, the KDB Decree and our Articles of Incorporation, is to "furnish funds in order to expedite the development of the national economy." We make loans available to major industries for equipment, capital investment and the development of high technology, as well as for working capital.

As of December 31, 2020, we had ₩159,083.6 billion of loans outstanding (including loans, call loans, domestic usance, bills of exchange bought, local letters of credit negotiation and loan-type suspense accounts pursuant to the applicable guidelines without adjusting for allowance for loan losses, present value discounts and deferred loan fees), total assets of ₩251,852.0 billion and total equity of ₩30,382.5 billion, as compared to ₩142,986.1 billion of loans outstanding, ₩217,835.3 billion of total assets and ₩25,802.8 billion of total equity as of December 31, 2019. In 2020, we recorded interest income of ₩4,441.6 billion, interest expense of ₩3,162.0 billion and net income of ₩487.5 billion, as compared to ₩5,101.2 billion of interest income, ₩4,038.9 billion of interest expense and ₩445.7 billion of net income in 2019. See "—Selected Financial Statement Data."

Currently, the Government directly holds 100% of our paid-in capital. In addition to contributions to our capital, the Government provides direct financial support for our financing activities, in the form of loans or guarantees. The Government has the power to elect or dismiss our Chairman and Chief Executive Officer, members of our Board of Directors and Auditor. The Government may dismiss each such person if he/she (i) violates the KDB Act, an order issued thereunder, or the Articles of Incorporation or (ii) is unable to perform his/her duties due to physical or mental disability. The Chairman may be dismissed by the President of the Republic at the recommendation of the chairman of the Financial Services Commission. The Chief Executive Officer and members of the Board of Directors may be dismissed by the Financial Services Commission at the recommendation of the Chairman and the Auditor may be dismissed by the Financial Services Commission. There is no prescribed timeline for dismissal. Pursuant to the KDB Act, the Financial Services Commission has supervisory power and authority over matters relating to our general business including, but not limited to, capital adequacy and managerial soundness.

The Government supports our operations pursuant to Article 32 of the KDB Act. Article 32 provides that "the annual net losses of the Korea Development Bank shall be offset each year by the reserve, and if the reserve be insufficient, the deficit shall be replenished by the Government." As a result of the KDB Act, the Government is generally responsible for our operations and is legally obligated to replenish any deficit that arises if our reserve, consisting of our surplus and capital surplus items, is insufficient to cover our annual net losses. In light of the above, if we had insufficient funds to make any payment under any of our obligations, including the debt securities and guarantees covered by this prospectus, the Government would take appropriate steps, such as by making a capital contribution, by allocating funds or by taking other action, to enable us to make such payment when due. The provisions of Article 32 do not, however, constitute a direct guarantee by the Government of our obligations under the debt securities or the guarantees, and the provisions of the KDB Act, including Article 32, may be amended at any time by action of the National Assembly.

In January 1998, the Government amended the KDB Act to:

- subordinate our borrowings from the Government to other indebtedness incurred in our operations;
- allow the Government to offset any deficit that arises if our reserve fails to cover our annual net losses by transferring Government-owned property, including securities held by the Government, to us; and

- allow direct injections of capital by the Government without prior National Assembly approval.

The Government amended the KDB Act in May 1999 and the KDB Decree in March 2000, to allow the Financial Services Commission to supervise and regulate us in terms of capital adequacy and managerial soundness.

In March 2002, the Government amended the KDB Act to enable us, among other things, to:

- obtain low-cost funds from The Bank of Korea and from the issuance of debt securities (in addition to already permitted industrial finance bonds), which funds may be used for increased levels of lending to small and medium size enterprises;
- broaden the scope of borrowers to which we may extend working capital loans to include companies in the manufacturing industry, enterprises which are "closely related" to enhancing the corporate competitiveness of the manufacturing industry and leading-edge high-tech companies; and
- extend credits to mergers and acquisitions projects intended to facilitate corporate restructuring efforts.

In July 2005 and May 2009, the Government amended the KDB Act to provide that:

(1) our annual net profit, after adequate allowances are made for depreciation in assets, shall be distributed as follows:

  (i) 40% or more of the net profit shall be credited to reserve, until the reserve amounts equal the total amount of paid-in capital; and

  (ii) any net profit remaining following the apportionment required under subparagraph (i) above shall be distributed in accordance with the resolution of our Board of Directors and the approval of our shareholders;

(2) accumulated amounts in reserve may be capitalized after offsetting any net losses; and

(3) any distributions made in accordance with paragraph (1)(ii) above may be in the form of cash dividends or dividends in kind, provided that any distributions of dividends in kind must be made in accordance with applicable provisions of the KDB Decree.

In February 2008, the Government further amended the KDB Act, primarily to transfer most of the Government's supervisory authority over us from the Ministry of Economy and Finance to the Financial Services Commission.

In May 2009, the Government amended the KDB Act to facilitate our privatization. The amendment provided for, among others:

- the preparation for the transformation of us from a special statutory entity into a corporation, including the application of the Banking Act as applicable;
- the expansion of our operation scope that enables us to engage in commercial banking activities, including retail banking (which was subsequently adjusted due to a change in the Government's decision to halt its plan for our privatization and to consolidate and strengthen our public financing role, utilizing our rich experience and expertise in public policy financing);
- the provision of government guarantees for our mid-to-long term foreign currency debt outstanding at the time of initial sale of the Government's stake in KDBFG (subject to the National Assembly's authorization of the Government guarantee amount) and possible guarantees for our foreign currency debt incurred for the refinancing of such mid-to-long term foreign currency debt with the government guarantee during the period when the Government owns more than 50% of our shares; and

- the establishment of KDBFG and KoFC and application of the Financial Holding Company Act to KDBFG.

In May 2014, the Government and the National Assembly amended the KDB Act to streamline the financial policy roles among Government-owned banks and financial corporations in order to better respond systematically to rapidly changing domestic and international economic conditions by merging KDBFG and KoFC into us. The amended KDB Act provides, among others, that:

- the Government will halt its plan for our privatization;
- public policy financing will be consolidated and strengthened through the newly merged entity;
- we will comprehensively succeed to the properties, rights and obligations of KDBFG and KoFC upon the consummation of the merger;
- the bonds issued by KDBFG and the policy bank bonds issued by the KoFC shall be deemed as the industrial financial bonds issued by us;
- the business engaged in by KoFC in accordance with the Korea Finance Corporation Act or other laws and decrees will be continuously performed by us; and
- the repayment of the principal of and interest on foreign currency debt (with an original maturity of one year or more at the time of issuance) incurred by KoFC and us before this amended KDB Act comes into force shall be guaranteed by the Government at the time of initial sale by the Government of its equity interest in us, subject to the approval by the National Assembly.

In May 2020, the Government amended the KDB Act in order to provide statutory grounds for the establishment of the Key Industry Stabilization Fund to support businesses in certain key industries that face financial difficulties resulting from the ongoing global outbreak of the COVID-19 pandemic. See "The Republic of Korea—The Economy—Worldwide Economic and Financial Difficulties" and "—Selected Financial Statement Data—Loans to Financially Troubled Companies."

The Minister of Economy and Finance of the Republic has, on behalf of the Republic, signed the registration statement of which this prospectus forms a part.

Capitalization

As of December 31, 2020, our authorized capital was ₩30,000 billion and our capitalization was as follows:

	December 31, 2020[1]
	(billions of won)
Long-term debt:	
Won currency borrowings	₩ 3,842.8
Industrial finance bonds	137,087.1
Foreign currency borrowings	1,989.6
Total long-term debt	142,919.5[2][3]
Capital:	
Paid-in capital	20,765.7
Capital surplus	2,484.4
Retained earnings[4]	5,068.0
Accumulated other comprehensive income	2,064.4
Total capital	30,382.5
Total capitalization	₩173,302.0

(1) Except as disclosed in this prospectus, there has been no material adverse change in our capitalization since December 31, 2020.
(2) We have translated borrowings in foreign currencies into Won at the rate of ₩1,088.0 to US$1.00, which was the market average exchange rate, as announced by the Seoul Monetary Brokerage Services Ltd., on December 31, 2020.
(3) As of December 31, 2020, we had confirmed acceptances and guarantees totaling ₩6,963.3 billion under outstanding guarantees issued on behalf of our clients. See "—Financial Statements and the Auditors—Notes to Separate Financial Statements of December 31, 2020 and 2019—Note 40."
(4) Includes regulatory reserve for credit losses of ₩1,146.0 billion as of December 31, 2020. If our allowance for credit losses is deemed insufficient for regulatory purposes, we compensate for the difference by recording a regulatory reserve for credit losses, which is shown as a separate item included in retained earnings. See "—Financial Statements and the Auditors—Notes to Separate Financial Statements of December 31, 2020 and 2019—Note 24."

Business

Purpose and Authority

Since our establishment, we have been the leading bank in the Republic in providing long-term financing for projects designed to assist the nation's economic growth and development.

Under the KDB Act, the KDB Decree and our Articles of Incorporation, our primary purpose is to "contribute to the sound development of the financial industry and the national economy by supplying and managing funds necessary for the development and promotion of industries, expansion of social infrastructure, development of regions, stabilization of the financial markets and facilitation of sustainable growth." Since we serve the public policy objectives of the Government, we do not seek to maximize profits. We do, however, strive to maintain a level of profitability to strengthen our equity base and support growth in the volume of our business.

Under the KDB Act, we may:

- carry out activities necessary to accomplish the expansion of the national economy, subject to the approval of the Financial Services Commission;
- provide loans or discount notes;
- subscribe to, underwrite or invest in securities;
- guarantee or assume indebtedness;
- raise funds by accepting demand deposits and time and savings deposits from the general public, issuing securities, borrowing from the Government, The Bank of Korea or other financial institutions, and borrowing from overseas;
- execute foreign exchange transactions, including currency and interest swap transactions;
- provide planning, management, research and other support services at the request of the Government, public bodies, financial institutions or enterprises;
- manage and operate various funds established pursuant to Government-led initiatives; and
- carry out other businesses incidental to the foregoing (subject to the approval of the Financial Services Commission).

Government Support and Supervision

The Government owns directly all of our paid-in capital. Since our establishment, the Government has made capital contributions not only in cash but also in the form of shares of common stock of Government-affiliated entities. Recent examples include the Government's contributions to our capital of (i) ₩50 billion in cash, ₩247.7 billion in cash and ₩10 billion in cash in July 2016, September 2016 and November 2016, respectively, (ii) ₩250 billion in the form of shares of common stock of Incheon Port Authority and Yeosu Gwangyang Port

Authority, ₩80 billion in cash and ₩65 billion in cash in May 2017, September 2017 and December 2017, respectively, (iii) ₩170 billion in cash in June 2018, (iv) ₩500 billion in cash and ₩55 billion in cash in March 2019 and September 2019, respectively, and (v) ₩451 billion in cash and ₩1,652 billion in cash in April 2020 and July 2020, respectively. Taking into account these capital contributions, as of December 31, 2020, our total paid-in capital was ₩20,765.7 billion. See "—Financial Statements and the Auditors—Notes to Separate Financial Statements of December 31, 2020 and 2019—Note 24." In January 2021, the Government contributed ₩510 billion in cash to our capital in January 2021.

In addition to capital contributions, the Government directly supports our financing activities by:

- lending us funds to on-lend;
- allowing us to administer Government loans made from a range of special Government funds;
- allowing us to administer some of The Bank of Korea's surplus foreign exchange holdings; and
- allowing us to receive credit from The Bank of Korea.

The Government also supports our operations pursuant to Articles 31 and 32 of the KDB Act. Article 31 provides that "40% or more of the annual net profit of the Korea Development Bank shall be transferred to reserve, until the reserve amounts equal the total amount of authorized capital" and that accumulated amounts in reserve may be capitalized. Article 32 provides that "the net losses of the Korea Development Bank shall be offset each fiscal year by the reserve, and if the reserve be insufficient, the deficit shall be replenished by the Government."

As a result of the KDB Act, the Government is generally responsible for our operations and is legally obligated to replenish any deficit that arises if our reserve, consisting of our surplus and capital surplus items, is insufficient to cover our annual net losses. In light of the above, if we had insufficient funds to make any payment under any of our obligations, including the debt securities and the guarantees covered by this prospectus, the Government would take appropriate steps, such as by making a capital contribution, by allocating funds or by taking other action, to enable us to make such payment when due. The provisions of Article 32 do not, however, constitute a direct guarantee by the Government of our obligations under the debt securities or the guarantees, and the provisions of the KDB Act, including Article 32, may be amended at any time by action of the National Assembly.

The Government closely supervises our operations in the following ways:

- the Government has the power to elect or dismiss our Chairman and Chief Executive Officer, members of our Board of Directors and Auditor;
- within three months after the end of each fiscal year, we must submit our financial statements for the fiscal year to the Financial Services Commission;
- the Financial Services Commission has broad authority to require reports from us on any matter and to examine our books, records and other documents. On the basis of the reports and examinations, the Financial Services Commission may issue any orders deemed necessary to enforce the KDB Act;
- the Financial Services Commission must approve our operating manual, which sets out the guidelines for all principal operating matters;
- the Financial Services Commission may supervise our operations to ensure managerial soundness based upon the KDB Decree and the Bank Supervisory Regulations of the Financial Services Commission and may issue orders deemed necessary for such supervision; and
- we may amend our Articles of Incorporation only with the approval of the Financial Services Commission.

We have had our annual financial statements for years commencing 1998 audited by an external auditor. See "—Financial Statements and the Auditors" and "Experts."

Pursuant to our most recently approved program of operations, we expect to support the reform and restructuring of the Republic's economic and industrial structure, including financing of promising small and medium sized enterprises, providing export finance and encouraging investments in infrastructure necessary to promote consumer demand and industrial reorganization.

Selected Financial Statement Data

Unless specified otherwise, the information provided below is stated on a separate basis in accordance with Korean IFRS.

Consolidated Statements of Financial Position Data

The following table presents selected statements of financial position data regarding our assets, liabilities and shareholders' equity on a consolidated basis as of December 31, 2020 and 2019, which have been derived from our audited consolidated financial statements as of and for the years ended December 31, 2020 and 2019.

	As of December 31,	
	2019	2020
	(billions of won)	
Statements of Financial Position Data		
Total Loans (measured at amortized cost)[1]	151,808.0	166,336.5
Total Borrowings[2]	188,956.1	216,528.4
Total Assets	268,839.7	304,996.5
Total Liabilities	233,762.6	264,007.0
Equity	35,077.1	40,989.5

(1) Gross amount, which includes loans for facility development, loans for working capital, loans for households, inter-bank loans, private loans, off-shore loan receivables, loans borrowed from overseas financial institutions, bills bought in foreign currencies, advance payments on acceptances and guarantees and other loans without adjusting for allowance for loan losses, present value discounts and deferred loan fees.

(2) Total Borrowings include deposits, financial liabilities measured at fair value through profit or loss, borrowings and debentures.

Consolidated Income Statement Data

Our selected income statement data included in the following table have been derived from our audited consolidated financial statements as of and for the years ended December 31, 2020 and 2019.

	Year Ended December 31,	
	2019[1]	2020
	(billions of Won)	
Income Statement Data		
Total Interest Income	5,567.1	4,876.2
Total Interest Expense	4,188.4	3,309.6
Net Interest Income	1,378.8	1,566.6
Operating Income	1,182.1	1,102.5
Non-operating Income (Loss)	(862.3)	1,745.8
Income before Income Tax	319.8	2,848.3
Income Tax Expense	213.7	717.2
Net Income	279.1	1,961.3

(1) The figures for the year ended December 31, 2019 have been restated due to the re-classification of our interest in KDB Life Insurance Co., Ltd. as assets and liabilities held for sale pursuant to our agreement to sell our shares in KDB Life Insurance Co., Ltd. to JC Partners in December 2020. See "—Financial Statements and the Auditors—Notes to Separate Financial Statements of December 31, 2019 and 2018—Note 11."

Separate Financial Statement Data

The following tables present selected separate financial information as of and for the years ended December 31, 2020 and 2019, which has been derived from our audited separate financial statements as of and for the years ended December 31, 2020 and 2019 included in this prospectus. You should read the following financial statement data together with the financial statements and notes included in this prospectus.

	As of December 31,	
	2019	2020
	(billions of won)	
Statements of Financial Position Data		
Total Loans (measured at amortized cost)[1]	142,986.1	159,083.6
Total Borrowings[2]	177,923.4	204,780.7
Total Assets	217,835.3	251,852.0
Total Liabilities	192,032.5	221,469.5
Equity	25,802.8	30,382.5

(1) Gross amount, which includes loans for facility development, loans for working capital, loans for households, inter-bank loans, private loans, off-shore loan receivables, loans borrowed from overseas financial institutions, bills bought in foreign currencies, advance payments on acceptances and guarantees and other loans without adjusting for allowance for loan losses, present value discounts and deferred loan fees.

(2) Total Borrowings include deposits, financial liabilities measured at fair value through profit or loss, borrowings and debentures.

As of December 31, 2020, our total assets increased by 15.6% to ₩251,852.0 billion from ₩217,835.3 billion as of December 31, 2019, primarily due to an increase in loans measured at amortized cost to ₩159,083.6 billion as of December 31, 2020 from ₩142,986.1 billion as of December 31, 2019 and an increase in securities measured at fair value through other comprehensive income to ₩34,141.3 billion as of December 31, 2020 from ₩24,249.2 billion as of December 31, 2019, as well as an increase in cash and due from banks to ₩10,529.0 billion as of December 31, 2020 from ₩6,592.2 billion as of December 31, 2019.

As of December 31, 2020, our total liabilities increased by 15.3% to ₩221,469.5 billion from ₩192,032.5 billion as of December 31, 2019, primarily due to an increase in debentures to ₩138,318.7 billion as of December 31, 2020 from ₩120,623.4 billion as of December 31, 2019 and an increase in deposits to ₩45,879.4 billion as of December 31, 2020 from ₩34,664.0 billion as of December 31, 2019.

As of December 31, 2020, our total equity increased by 17.7% to ₩30,382.5 billion from ₩25,802.8 billion as of December 31, 2019, primarily due to a change in accumulated other comprehensive income from a loss of ₩88.1 billion as of December 31, 2019 to a gain of ₩2,064.4 billion as of December 31, 2020 and an increase in our paid-in capital to ₩20,765.7 billion in 2020 from ₩18,663.1 billion in 2019 as a result of the Government's ₩2,103 billion contribution to our capital in 2020.

Our selected income statement data included in the following table have been derived from our audited separate financial statements as of and for the years ended December 31, 2019 and 2018 included in this prospectus.

	Year Ended December 31,	
	2019	2020
	(billions of Won)	
Income Statement Data		
Total Interest Income	5,101.2	4,441.6
Total Interest Expense	4,038.9	3,162.0
Net Interest Income	1,062.3	1,279.6
Operating Income	1,168.6	894.5
Income before Income Tax	602.1	620.9
Income Tax Expense	156.3	133.3
Net Income	445.7	487.5

2020

We had net income of ₩487.5 billion in 2020 compared to net income of ₩445.7 billion in 2019, on a separate basis. The principal factors for the increase in net income included:

- net other operating income of ₩227.0 billion in 2020 compared to net other operating expense of ₩341.7 billion in 2019, primarily due to an increase in net gain on valuation of loans measured at fair value through profit or loss to ₩649.3 billion in 2020 from ₩42.9 billion in 2019;
- a net gain on derivatives of ₩397.2 billion in 2020 compared to a net loss on derivatives of ₩8.3 billion in 2019, primarily due to a decrease in net loss on fair value hedged items resulting from fluctuations in interest rates, foreign exchange rates and the prices of stocks and derivatives;
- a decrease in impairment loss on investments in subsidiaries and associates to ₩239.5 billion in 2020 from ₩542.9 billion in 2019, primarily due to a decrease in impairment losses recognized in connection with our holdings of equity interest in Daewoo Shipbuilding & Marine Engineering Co., Ltd., or DSME, and GM Korea; and
- an increase in net interest income to ₩1,279.6 billion in 2020 from ₩1,062.3 billion in 2019, primarily due to a decrease in interest expense to ₩3,162.0 billion in 2020 from ₩4,038.9 billion in 2019, which outpaced the decrease in interest income to ₩4,441.6 billion in 2020 from ₩5,101.2 billion in 2019.

The above factors were partially offset by an increase in provision for loan loss allowance to ₩1,177.0 billion in 2020 from ₩59.8 billion in 2019, primarily due to an increase in expected credit losses in anticipation of a deterioration in the overall asset quality of our loan portfolio due to the ongoing global outbreak of the COVID-19 pandemic.

2019

We had net income of ₩445.7 billion in 2019 compared to net income of ₩2,509.8 billion in 2018, on a separate basis. The principal factors for the decrease in net income included:

- impairment loss on investments in subsidiaries and associates of ₩542.9 billion in 2019 compared to a reversal of impairment loss on investments in subsidiaries and associates of ₩1,341.0 billion in 2018, primarily due to impairment losses of ₩374.4 billion relating to DSME in 2019 compared to a reversal of impairment losses of ₩2,014.7 billion relating to DSME in 2018 (See "—Financial Statements and the Auditors—Notes to Separate Financial Statements of December 31, 2019 and 2018—Note 11");
- a decrease in net interest income to ₩1,062.3 billion in 2019 from ₩1,382.8 billion in 2018, primarily due to an increase in interest expense on debentures, which reflected an increase in the average cost of debentures in 2019 compared to 2018; and

- provision for unused commitments of ₩263.9 billion in 2019 compared to a reversal of provision for unused commitments of ₩10.4 billion in 2018, primarily due to an increase in provision for unused commitments for DSME.

The above factors were partially offset by a decrease in provision for loan losses to ₩59.8 billion in 2019 from ₩377.4 billion in 2018, primarily due to a decrease in the amount of, and an improvement in the asset quality of, loans extended to Hanjin Heavy Industries and Construction Co., Ltd. and Dongbu Steel Co., Ltd. (See "—Financial Statements and the Auditors—Notes to Separate Financial Statements of December 31, 2019 and 2018—Note 34").

Allowances for Loan Losses and Loans in Arrears

We establish allowances for losses from problem loans, including guarantees and other extensions of credit, based on the length of the delinquent periods and the nature of the loans, including guarantees and other extensions of credit. Under K-IFRS 1109, for annual periods commencing on or after January 1, 2018, we establish allowances for credit losses based on expected credit losses instead of incurred losses (as was the case under K-IFRS 1039) by assessing changes in expected credit losses and recognizing such changes as impairment loss (or reversal of impairment loss) in profit or loss. Under K-IFRS 1109, the allowance required to be established with respect to a loan or receivable is the amount of the expected 12-month credit loss or the expected lifetime credit loss for the applicable loan or receivable, according to three stages of credit risk deterioration since initial recognition.

As of December 31, 2020, we established allowances of ₩3,776.5 billion for loan losses, which was 21.6% higher than the allowances as of December 31, 2019 of ₩3,105.8 billion, primarily due to an increase in expected credit losses in anticipation of a deterioration in the overall asset quality of our loan portfolio due to the ongoing global outbreak of the COVID-19 pandemic. Allowances for loan losses under K-IFRS are recorded for loans based on expected credit losses, depending on whether there has been a significant increase in credit risk or a credit impairment since initial recognition and, if our allowances for loan losses are deemed insufficient for regulatory purposes, we compensate for the difference by recording a regulatory reserve for loan losses within retained earnings. See "—Financial Statements and the Auditors—Notes to Separate Financial Statements of December 31, 2020 and 2019—Notes 3(27), 9(1), 24(4) and 24(5)."

Certain of our customers have restructured loans with their creditor banks. As of December 31, 2020, we have provided loans of ₩955.1 billion for companies under workout, court receivership, court mediation and other restructuring procedures. As of December 31, 2020, we had established allowances of ₩438.9 billion for loan losses with respect to such companies. We cannot assure you that actual results of the credit loss from the loans to these customers will not exceed the allowances established.

The following table provides information on our loan loss allowances.

		As of December 31, 2019[1]		As of December 31, 2020[1]	
		Loan Amount	Loan Loss Allowances	Loan Amount	Loan Loss Allowances
		(billions of won)			
Loan Classification	Normal[2]	₩135,947.4	₩ 368.5	₩152,753.7	₩ 1,200.7
	Precautionary	4,132.7	883.5	3,300.8	805.6
	Substandard	1,485.9	676.0	1,880.7	936.5
	Doubtful	204.5	159.7	285.7	218.0
	Expected Loss	1,215.6	1,018.1	862.7	615.7
	Total	₩142,986.1	₩ 3,105.8	₩159,083.6	₩ 3,776.5

(1) These figures include loans for facility development, loans for working capital, loans for households, inter-bank loans, private loans, off-shore loan receivables, loans borrowed from overseas financial institutions, bills bought in foreign currencies, advance payments on acceptances and guarantees and other loans.

(2) Includes loans guaranteed by the Government. Under Korean IFRS, we establish loan loss allowances for all loans including loans guaranteed by the Government.

As of December 31, 2020, our non-performing loans totaled ₩3,029.1 billion, representing 1.9% of our outstanding loans as of such date. Non-performing loans are defined as loans that are classified as substandard or below. On December 31, 2020, our legal reserve was ₩1,356.1 billion, representing 0.9% of our outstanding loans as of such date.

Loans to Financially Troubled Companies

We have credit exposure (including loans, guarantees and equity investments) to a number of financially troubled Korean companies including DSME, HMM Company Limited (formerly, Hyundai Merchant Marine Co., Ltd.), Hanjin Heavy Industries and Construction Co., Ltd., Daehan Shipbuilding Co., Ltd., STX Offshore & Shipbuilding, KG Dongbu Steel Co., Ltd., Doosan Heavy Industries & Construction Co., Ltd., Doosan Infracore Co., Ltd. and GM Korea Company. As of December 31, 2020, our credit extended to these companies totaled ₩15,205.7 billion, accounting for 6.0% of our total assets as of such date.

The following table provides the loan amounts (including loans classified as substandard or below and equity investment classified as estimated loss or below) extended to these companies as of the dates indicated:

Company	As of December 31, 2019	As of December 31, 2020	Primary Reason for Change
	(billions of won)		
DSME	₩ 5,277.1	₩ 4,463.1	Decrease due to a decrease in refund guarantees
HMM Company Limited	1,685.2	4,771.5	Increase due to purchase of perpetual bonds
Hanjin Heavy Industries and Construction	1,089.4	927.2	Decrease due to a decrease in loans
Daehan Shipbuilding	1,087.4	1,047.4	Decrease due to a decrease in refund guarantees
STX Offshore & Shipbuilding	998.5	531.3	Decrease due to a decrease in refund guarantees
KG Dongbu Steel	755.4	695.9	Decrease due to sales of stocks and redemption of loans
Doosan Heavy Industries & Construction	599.1	1,644.2	Increase due to an increase in loans
Doosan Infracore	641.8	688.2	Increase due to purchase of corporate bonds
GM Korea Company	401.5	436.9	Increase due to an increase in the value of stocks
Total	₩13,553.3	₩15,205.7	

As of December 31, 2020, we established allowances of ₩1,182.9 billion for our exposure to DSME, ₩101.2 billion for HMM Company Limited, ₩140.8 billion for Hanjin Heavy Industries and Construction, ₩439.6 billion for Daehan Shipbuilding, ₩430.8 billion for STX Offshore & Shipbuilding, ₩70.6 billion for KG Dongbu Steel, ₩103.3 billion for Doosan Heavy Industries & Construction, ₩53.6 billion for Doosan Infracore and none for GM Korea.

During 2015, DSME, one of the largest shipbuilding and offshore construction companies in Korea, suffered from financial difficulties primarily due to significant losses incurred in connection with the construction of offshore plants resulting from a prolonged slowdown in the global shipbuilding industry. In October 2015, we announced that we, along with The Export-Import Bank of Korea, would extend additional financing of up to ₩4.2 trillion to DSME by the end of 2016 in the form of debt-to-equity swaps, extension of additional loans and provision of other forms of liquidity support. In this connection, in December 2015, we acquired ₩382.9 billion of new equity shares of DSME, which increased our equity interest in DSME from 31.5% to 49.7%, and we became its largest shareholder. In December 2016, we increased our equity interest in DSME to 79.0% through an additional debt for equity swap. In March 2017, we and The Export-Import Bank of Korea announced a second joint plan to provide an additional ₩2.9 trillion in financial support to DSME, which was approved by the other creditors in April 2017. Based on such plan, we provided additional debt-to-equity swaps of ₩0.3 trillion in June 2017 and The Export-Import Bank of Korea exchanged a term loan in the amount of ₩1.28 trillion provided by it to DSME for perpetual bonds issued by DSME. Other creditors also provided debt-to-equity swaps for up to 80% of their debt with DSME and rescheduled the maturities of the remainder. Subsequently, in March 2019, Hyundai Heavy Industries entered into a definitive agreement with us to acquire DSME. Pursuant to such agreement, we plan to transfer all of our shares in DSME amounting to approximately ₩2 trillion (in the form of contributions-in-kind) to Korea Shipbuilding & Offshore Engineering, a newly established sub-holding company spun off from Hyundai Heavy Industries to control its shipbuilding companies, in return for an equity stake in Korea Shipbuilding & Offshore Engineering. It is expected that, following the completion of this transaction, Hyundai Heavy Industries will become the largest shareholder of DSME, followed by us holding the second largest stake in DSME. The completion of this transaction is subject to various conditions, including approval from the antitrust authorities of the European Union and applicable countries.

In July 2016, HMM Company Limited executed a debt-to-equity swap with us and other creditors, as part of its continued restructuring led by us as its largest creditor, and affiliates of the Hyundai group reduced their shareholdings in HMM Company Limited, which resulted in us becoming the largest shareholder of HMM Company Limited. In October 2018, we injected ₩1 trillion in emergency aid into HMM Company Limited in order to normalize its operations by purchasing bonds with warrants and convertible bonds issued by HMM Company Limited. As of December 31, 2020, our equity interest in Hyundai Merchant Marine amounted to 12.6%.

In January 2019, Hanjin Heavy Industries and Construction Philippines, a subsidiary of Hanjin Heavy Industries and Construction at Subic Bay in the Philippines, declared bankruptcy and filed for corporate rehabilitation with a regional trial court following its failure to comply with loan obligations to its Philippine lenders. In March 2019, creditors in Korea (including us) and lenders in the Philippines agreed on, and executed, a business normalization plan including a debt-to-equity swap and capital reduction for Hanjin Heavy Industries and Construction, as a result of which we became the largest shareholder of Hanjin Heavy Industries and Construction. In April 2021, creditors of Hanjin Heavy Industries and Construction (including us) agreed to sell a 66.85% interest in the company to a consortium led by Dongbu Corporation, which transaction is expected to be completed by August 2021.

STX Offshore & Shipbuilding has faced financial difficulties for the past several years due to prolonged slowdowns in the Korean shipbuilding and shipping industries. STX Offshore & Shipbuilding, which had filed for court receivership in May 2016 and executed debt-to-equity swaps with their creditors (including us) in December 2016 under a rehabilitation plan through which we increased our equity interest to 43.9% and became its largest shareholder, exited court receivership in July 2017. In November 2020, we selected a consortium consisting of KH Investment and UAMCO Ltd. as the preferred bidder for the sale of shares of STX Offshore & Shipbuilding. In January 2021, the consortium agreed to invest ₩250 billion in STX Offshore & Shipbuilding in exchange for its newly issued shares. As of December 31, 2020, our equity interest in STX Offshore & Shipbuilding amounted to 39.8%.

Dongbu Steel has also been facing financial difficulties for the past several years due to the prolonged slowdown in the Korean construction industry and in the Korean economy in general. Dongbu Steel entered into

a voluntary workout agreement with its creditors, including us, in October 2015. Such agreement expired in September 2019 when KG Steel, a subsidiary of KG Group established in May 2019, became the largest shareholder of Dongbu Steel, which was subsequently re-named to KG Dongbu Steel. As of December 31, 2020, our equity interest in KG Dongbu Steel amounted to 11.0%.

Doosan Heavy Industries & Construction Co., Ltd. has also faced financial difficulties due to the prolonged slowdown in the Korean heavy and construction industries and in the Korean economy in general, as well as the Government's initiative to support clean and renewable energy sources while phasing out nuclear and coal-fired plants in recent years. Doosan Heavy Industries submitted a self-rescue plan to its creditors, including us, and we agreed to provide Doosan Heavy Industries with loans amounting to ₩500 billion, ₩400 billion and ₩600 billion in March, April and June 2020, respectively. In February 2021, as part of the self-rescue plan, a consortium comprised of Hyundai Heavy Industries Holdings Co. and KDB Investment, our investment unit, entered into an agreement with Doosan Heavy Industries & Construction Co., Ltd. to purchase a 35.0% equity interest in Doosan Infracore for ₩850 billion. The consummation of the acquisition remains subject to approval from the Korea Fair Trade Commission, which is expected to be completed in the second half of 2021.

In 2020, we sold non-performing loans worth ₩416.1 billion to Hana F& I Inc.

Our large exposure to financially troubled companies in Korea means that we are also exposed to financial difficulties experienced by our borrowers as a result of, among other things, adverse economic conditions in Korea and globally, which could disrupt the business, activities and operations of many of our borrowers, which in turn could have an adverse impact on the ability of our borrowers to meet existing payment or other obligations to us. For example, COVID-19, an infectious disease that was first reported to have been transmitted to humans in late 2019 and was declared a "pandemic" by the World Health Organization in March 2020, has spread globally over the course of 2020 and 2021 to date and has led to significant global and domestic economic and financial disruptions. See "The Republic of Korea—The Economy—Worldwide Economic and Financial Difficulties." The COVID-19 pandemic has had an especially direct negative impact on certain of our borrowers, among them the airline industry, which has been in significant need of liquidity following a sharp decline in aircraft traffic and a dramatic increase in the number of suspended flights due to entry restrictions imposed by many countries in response to COVID-19 throughout 2020 and 2021 to date.

As of December 31, 2020 and 2019, our loan amounts (including loans classified as substandard or below and equity investment classified as estimated loss or below) extended to Korean Air Co., Ltd., a subsidiary of Hanjin Group and Korea's largest airline and flagship carrier, amounted to ₩1,374.5 billion and ₩1,401.3 billion, respectively. In May 2020, we injected ₩720 billion (consisting of ₩420 billion in securities collateralized by income receivables, ₩180 billion in perpetual bonds and ₩120 billion in loans) into Korean Air in order to provide liquidity support.

In April 2020, we provided Asiana Airlines, a subsidiary of Kumho Asiana Group and the second-largest airline in Korea, with liquidity support by providing a credit line in the amount of ₩1.2 trillion. Our decision to take such measure was largely driven by a need to address Asiana Airlines' financial difficulties resulting from the negative impact of the COVID-19 pandemic on the airline industry. In September 2020, we decided to inject ₩2.4 trillion from the Key Industry Stabilization Fund (explained further below) into Asiana Airlines in order to normalize its operations following the cancellation of plans by a consortium led by HDC Hyundai Development to acquire Asiana Airlines. Subsequently, in November 2020, we signed an investment agreement with Hanjin KAL, the parent company of Korean Air, to inject ₩800 billion (consisting of ₩500 billion through participation in a rights offering and ₩300 billion through purchase of exchangeable bonds) into Hanjin KAL in connection with Korean Air's acquisition of a 63.9% stake in Asiana Airlines through a transaction valued at ₩1.8 trillion (the "Acquisition"), subsequent to which we expect our equity interest in Hanjin KAL to amount to approximately 10.7%. In December 2020, Asiana Airlines' shareholders approved a 3-to-1 share capital reduction plan, which was aimed at offsetting part of Asiana Airlines' deficits in preparation for the Acquisition, which we expect to be completed by the second half of 2021. The consummation of the Acquisition currently

remains subject to a number of factors, including uncertainties regarding the approval of the Acquisition by Korean Air's shareholders, opposition to the Acquisition by labor unions of Korean Air and Asiana Airlines, and approval of the Acquisition from antitrust authorities of a number of jurisdictions, including the United States, the European Union and China.

In addition, the ongoing global outbreak of the COVID-19 pandemic has prompted the Government in 2020 and 2021 to date to implement various emergency aid initiatives involving Korean banks, including us, to provide liquidity assistance to a range of financially troubled companies. Such initiatives include, among others, the provision of new loans provided to financially troubled companies, extension of maturity dates for existing loans and suspension of interest payment obligations for an extended period of time. Most recently, in May 2020, the Government provided for the establishment of the Key Industry Stabilization Fund, a fund amounting to ₩40 trillion to be administered by us mainly through the issuance of industrial finance bonds, to support businesses in certain key industries that face financial difficulties resulting from the ongoing global outbreak of the COVID-19 pandemic, such as the air transport and maritime industries. The Key Industry Stabilization Fund has supported those businesses that meet certain pre-determined criteria, including those aimed at stabilizing the job markets. Our participation in such Government-led initiatives may lead us to extend credit to financially troubled 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. Furthermore, there is no guarantee that the financial condition and liquidity position of our financially troubled 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 financially troubled borrowers resulting from such Government-led initiatives may have a material adverse effect on our financial condition and results of operations.

A deterioration in the financial condition of our borrowers, including those described above as well as other companies under workout, court receivership, court mediation and other restructuring procedures, could result in a deterioration in the quality of our loan portfolio. This, in turn, could result in an increase in delinquency ratios, increased charge-offs and higher provisioning, as well as an increase in impairment losses on such loans, particularly if businesses remain closed, the impact of the COVID-19 pandemic on the global economy worsens, or more of our borrowers draw on their lines of credit or seek additional loans from us to help finance their business, which could have a material adverse impact on our business, financial condition or results of operations.

Operations

Loan Operations

We mainly provide equipment capital loans, project loans and working capital loans to private Korean enterprises that undertake major industrial projects either directly or indirectly through on-lending. The loans generally cover over 50%, and in some cases as much as 100%, of the total project cost. Equipment capital loans include loans to major industries for development of high technology and for acquisition, improvement or repair of machinery and equipment. We disburse loan proceeds in installments to ensure that the borrower uses the loan for its intended purpose.

Before approving a loan, we consider:

- the economic benefits of the project to the Republic;
- the extent to which the project serves priorities established by the Government's industrial policy;
- the project's operational feasibility;
- the loan's and the project's profitability; and
- the quality of the borrower's management.

The interest rate we charge on our loans varies based on a number of factors, including the purpose of the loan, maturity date and the borrower's credit ratings. Certain loans bear interest at below market rates. Equipment capital loans generally have original maturities of three to five years, although we occasionally make equipment capital loans with longer maturities. Working capital loans usually mature within two years.

The Business Planning Department functions as our centralized policy-making and planning division with respect to our lending activities. The Business Planning Department formulates and revises our internal regulations on loan programs as well as setting basic lending guidelines.

We have multiple levels of loan approval authority, depending on the loan amount and other factors such as the availability of collateral or guarantee, debt repayment ability and business prospects. The Credit Review Committee, Division Credit Review Committee, Division Credit Review Sub-Committee, General Manager each has authority to approve loans up to a specified amount. The amount differs depending on the type of loan and certain other factors, for example, whether a loan is collateralized or guaranteed.

In 2020 and 2021 to date, many of our corporate borrowers have experienced financial difficulties due to the ongoing global outbreak of the COVID-19 pandemic. See "The Republic of Korea—The Economy—Worldwide Economic and Financial Difficulties." We have significant exposure to certain industries particularly affected by the ongoing outbreak of the COVID-19 pandemic, such as the transportation (including airlines), hotel and leisure industries, the banking and insurance industries, the retail and wholesale industries and the manufacturing industry, among others. In the event that the financial condition of these companies to which we extended credits deteriorates in the future, we may be required to record additional allowances for loan losses, as well as charge-offs and impairment losses or losses on disposal, which may have a material adverse impact on our results of operations and financial condition.

Our overall risk management policy is set by the Risk Management Committee. For detailed information regarding our risk management policy and procedures, see "—Financial Statements and Auditors—Notes to Separate Financial Statements of December 31, 2020 and 2019—Note 49."

The following table sets out, by currency and category of loan, our total outstanding loans:

Loans[1]

	December 31,	
	2019	2020
	(billions of won)	
Equipment Capital Loans:		
Domestic Currency	₩ 45,877.9	₩ 51,237.3
Foreign Currency	7,022.5	7,789.1
	52,900.4	59,026.4
Working Capital Loans:		
Domestic Currency[2]	53,545.5	63,949.1
Foreign Currency	8,528.6	9,270.2
	62,074.1	73,219.3
Other Loans[3]	28,011.6	26,837.9
Total Loans	₩142,986.1	₩159,083.6

(1) Includes loans extended to affiliates.
(2) Includes loans on households.
(3) Includes inter-bank loans, private loans, off-shore loan receivables, loans borrowed from overseas financial institutions, bills bought in foreign currencies, advance payments on acceptances and guarantees and other loans.

As of December 31, 2020, we had ₩159,083.6 billion in outstanding loans, which represents an 11.3% increase from ₩142,986.1 billion of outstanding loans as of December 31, 2019.

Maturities of Outstanding Loans

The following table categorizes our outstanding equipment capital and working capital loans by their remaining maturities:

Outstanding Equipment Capital and Working Capital Loans by Remaining Maturities[1]

	December 31,		As % of December 31, 2020
	2019	2020	Total
	(billions of won, except percentages)		
Loans with Remaining Maturities of One Year or Less	₩ 49,600.6	₩ 58,273.9	44.1%
Loans with Remaining Maturities of More Than One Year	65,373.9	73,971.8	55.9
Total	₩114,974.5	₩132,245.7	100.0%

(1) Includes loans extended to affiliates.

Loans by Industrial Sector

The following table sets out the total amount of our outstanding equipment capital and working capital loans, categorized by industry sector:

Outstanding Equipment Capital and Working Capital Loans by Industry Sector[1]

	December 31,		As % of December 31, 2020
	2019	2020	Total
	(billions of won, except percentages)		
Manufacturing	₩ 56,197.4	₩ 62,964.5	47.6%
Banking and Insurance	27,362.6	30,478.6	23.0
Transportation	7,653.5	10,034.6	7.6
Public Administration	685.8	590.9	0.4
Electric, Gas and Water Supply Industry	3,277.1	3,784.4	2.9
Others[2]	19,798.1	24,392.8	18.4
Total	₩114,974.5	₩132,245.7	100.0%
Percentage increase (decrease) from previous period	3.5%	15.0%	

(1) Includes loans extended to affiliates.
(2) Includes wholesale and retail trade, real estate and leasing, and construction.

The manufacturing sector accounted for 47.6% of our outstanding equipment capital and working capital loans as of December 31, 2020. As of December 31, 2020, loans to the transportation equipment manufacturing businesses and the metal product manufacturing businesses accounted for 10.4% and 10.1%, respectively, of our outstanding equipment capital and working capital loans to the manufacturing sector.

Industrial Bank of Korea was our single largest borrower as of December 31, 2020, accounting for 5.0% of our outstanding equipment capital and working capital loans. As of December 31, 2020, our five largest borrowers and 20 largest borrowers accounted for 12.4% and 23.7%, respectively, of our outstanding equipment capital and working capital loans.

The following table breaks down the equipment capital and working capital loans to our 20 largest borrowers outstanding as of December 31, 2020 by industry sector:

20 Largest Borrowers by Industry Sector

	As % of December 31, 2020 Total Outstanding Equipment Capital and Working Capital Loans to Our 20 Largest Borrowers
Manufacturing	32.1%
Banking and Insurance	51.8
Transportation	10.4
Electric, Gas and Water Supply Industry	2.0
Others[1]	3.7
Total	100.0%

(1) Includes wholesale and retail trade, real estate and leasing, and construction.

The following table categorizes the new loans made by us by industry sector:

New Loans by Industry Sector

	Year Ended December 31,		As % of Year Ended December 31, 2020
	2019	2020	Total
	(billions of won, except percentages)		
Manufacturing	₩31,646.0	₩39,368.4	55.2%
Banking and Insurance	10,651.7	10,404.0	14.6
Transportation	4,105.8	3,856.2	5.4
Electric, Gas and Water Supply Industry	2,082.9	2,330.3	3.3
Public Administration	211.0	181.0	0.3
Others[1]	11,403.9	15,118.6	21.2
Total	₩60,101.3	₩71,258.5	100.0%
Percentage increase (decrease) from previous period	26.1%	18.6%	

(1) Includes wholesale and retail trade, real estate and leasing, and construction.

Loans by Categories

In addition to dividing our loans into equipment capital and working capital loans, we classify loans into several groupings, the most important being:

- industrial fund loans;
- on-lending loans;
- foreign currency loans;
- local currency loans denominated in foreign currencies;
- offshore loans in foreign countries; and
- government fund loans.

The following table sets out equipment capital and working capital loans by categories as of December 31, 2020:

	Equipment Capital Loans[1]		Working Capital Loans[1]	
	December 31, 2020	%	December 31, 2020	%
	(billions of won, except percentages)			
Industrial fund loans	₩46,573.7	78.9%	₩49,179.3	67.2%
On-lending loans	2,812.8	4.8	13,868.6	18.9
Foreign currency loans	5,059.6	8.6	1,499.6	2.0
Local currency loans denominated in foreign currencies	4.7	0.0	26.8	0.0
Offshore loans in foreign currencies	2,331.5	3.9	6,846.5	9.4
Government fund loans	123.8	0.2	0.0	0.0
Overdraft	0.0	0.0	100.7	0.1
Others[1]	2,120.3	3.6	1,697.8	2.3
Total	₩59,026.4	100.0%	₩73,219.3	100.0%

(1) Includes loans on households and loans extended to affiliates.

Industrial Fund Loans. Industrial fund loans are equipment capital and working capital loans denominated in Won to borrowers in major industries to finance equipment and facilities.

We currently make equipment capital industrial fund loans at floating or fixed rates for terms of up to 10 years and for up to 100% of the equipment cost being financed. We make working capital industrial fund loans at floating or fixed rates and in amounts constituting up to 40% of the borrower's estimated annual sales.

On-lending Loans. On-lending is a form of indirect financing that involves intermediary financial institutions which on-lend the funds provided by us to industrial borrowers and are responsible for repayment to us. Most of the funds provided by us through on-lending are ultimately lent to small- and medium-sized enterprises for their equipment purchases and working capital. We explicitly set detailed guidelines (including scope of borrowers, maturity and interest rates) for intermediary financial institutions to be followed when on-lending to the ultimate borrowers. We monitor our exposure to, and the credit standing of, each financial institution to which we lend. Borrowers do not apply directly to us and may only apply for our on-lending loans through their regular bank or another bank of their choice. The intermediary bank appraises the financial and business situation of the applicant and generally assumes liability for repayment to us. Although the processing of individual loans requires two formally separate loan approvals for each borrower, first by the intermediary bank and then by us, the ultimate borrower need only apply to the intermediary bank for approval.

Foreign Currency Loans. We extend loans denominated in U.S. dollars, Japanese Yen or other foreign currencies principally to finance the purchase of industrial equipment from abroad or the implementation of overseas industrial development projects by Korean companies. We make these loans at floating interest rates with original maturities, in the case of equipment capital foreign currency loans, of up to 10 years and, in the case of working capital foreign currency loans, of up to three years.

Local Currency Loans Denominated in Foreign Currencies. We make local currency loans denominated in foreign currencies for the same purposes, and to the same borrowers, as foreign currency loans. Although we denominate the loans in foreign currency, the borrower receives and repays the loans in Won based on foreign exchange rates at the time of receipt and repayment. We currently make loans of this type at floating interest rates, with original maturities, in the case of equipment capital loans, of up to 10 years and, in the case of working capital loans, of up to three years.

Offshore Loans in Foreign Currencies. We extend offshore loans in foreign currencies to finance:

- the purchase of industrial equipment and the implementation of overseas industrial projects by overseas subsidiaries and branches of Korean companies; and
- the overseas industrial development projects of foreign government entities, international organizations and foreign companies.

We make these loans at floating interest rates with original maturities, in the form of equipment capital foreign currency loans, of up to 10 years and, working capital foreign currency loans, of up to three years.

Government Fund Loans. We make government fund loans primarily to finance:

- water supply and drainage facilities;
- the Seoul subway system;
- freight terminal facilities;
- hospitals; and
- other facilities.

Government fund loans that are equipment capital loans require approval by the appropriate Government ministry. We currently make government fund loans in Won at floating interest rates with original maturities of 10 to 20 years.

Other Loans. We also make special purpose fund loans for particular industries or projects using funds lent to us by the Government and foreign financial institutions. The Government funds that finance these loans include, among others:

- the Tourism Promotion Fund (hotel and resort projects);
- the Rational Use of Energy Fund (energy conservation projects and collective energy supply projects); and
- the Small- and Medium-sized Enterprises Promotion Fund (small- and medium-sized enterprises).

For further information relating to such loans, see "—Sources of Funds."

Guarantee Operations

We extend guarantees to our clients to facilitate their other borrowings and to finance major industrial projects. We guarantee Won-denominated corporate debentures, local currency loans, and other Won liabilities and foreign currency loans from domestic and overseas Korean financial institutions and from foreign institutions. The KDB Act and our Articles of Incorporation limit the aggregate amount of our industrial finance bond obligations and guarantee obligations. See "—Sources of Funds."

We generally obtain collateral valued in excess of the original guarantee. We appraise the value of our collateral at least once a year. Depending on the borrower, the collateral may be industrial plants, real estate and/or marketable securities.

The following table shows our outstanding guarantees:

Guarantees Outstanding

	As of December 31,	
	2019	2020
	(billions of won)	
Acceptances	₩ 325.2	₩ 408.2
Guarantees on local borrowing	1,046.3	1,001.3
Guarantees on foreign borrowing	6,205.6	5,510.8
Letter of guarantee for importers	51.5	43.0
Total	₩7,628.6	₩6,963.3

Investments

We invest in a range of Korean private and Government-owned enterprises but we will not take a controlling interest in a company unless the acquisition is necessary for the corporate restructuring of the company. Although generally a long-term investor, we sell investments from time to time. In recent years, sales resulted principally from the Government's privatization program, and we expect to continue such sales in the future. The Government plans to sell its direct or indirect interest in certain private sector companies acquired during previous restructuring programs, including Daewoo Engineering & Construction Co., Ltd., depending on market conditions. In accordance with such plan, we expect to sell our equity holdings in certain private sector companies if favorable opportunities for sale arise. Our equity investments increased to ₩38,227.6 billion as of December 31, 2020 from ₩36,616.5 billion as of December 31, 2019.

The KDB Act and our Articles of Incorporation provide that the cost basis of our total equity investments may not exceed twice the sum of our paid-in capital and our reserve from profit. In addition, pursuant to the KDB Decree, we may not acquire equity securities of a single company in excess of 15% of its entire voting shares. The 15% limit, however, does not apply to certain investments, including those in Government-controlled companies financed by capital contributions from the Government. As of December 31, 2020, the cost basis of our equity investments subject to restriction under the KDB Act and our Articles of Incorporation totaled ₩15,802.9 billion, equal to 34.0% of our equity investment ceiling. For a discussion of Korean accounting principles relating to our equity investments, see "—Financial Statements and the Auditors."

The following table sets out our equity investments by industry sector on a book value basis as of December 31, 2020:

Equity Investments

	Book Value as of December 31, 2020
	(billions of won)
Electric, Gas and Water Supply Industry	₩17,990.7
Construction	1,028.3
Banking and Insurance	10,946.4
Real Estate Business	3,772.2
Manufacturing	548.8
Transportation and Communication	2,328.8
Others	1,612.4
Total	₩38,227.6

As of December 31, 2020, we held total equity investments, on a book value basis, of ₩507.5 billion in one of our five largest borrowers and ₩2,285.3 billion in four of our 20 largest borrowers. We have not established a policy addressing loans to enterprises in which we hold equity interests or equity interests in enterprises to which we have extended loans.

When possible, we use the prevailing market price of a security to determine the value of our interest. However, if no readily ascertainable market value exists for our holdings, we record these investments at the cost of acquisition. With respect to our equity interests in enterprises in which we hold more than 15% of interest, we value these investments annually, with certain exceptions, on a net asset value basis when the investee company releases its financial statements. As of December 31, 2020, the aggregate value of our equity investments accounted for approximately 89.9% of their aggregate cost basis.

As part of our investment activities, we underwrite straight and convertible bond issuances in Won for domestic corporations. We also invest in municipal bonds, extending funds to municipalities at subsidized interest rates, mostly to finance water supply and drainage infrastructure projects.

Other Activities

We engage in a range of industrial development activities in addition to providing loans and guarantees, including:

- conducting economic and industrial research;
- performing engineering surveys;
- providing business analyzes and managerial assistance; and
- offering trust services.

As of December 31, 2020, we held in trust cash and other assets totaling ₩39,896.1 billion, and we generated in 2020 trust fee income equaling ₩188.9 billion. As of December 31, 2019, we held in trust cash and other assets totaling ₩36,600.1 billion, and we generated in 2019 trust fee income equaling ₩157.3 billion. Pursuant to Korean law, we segregate trust assets from our other assets; trust assets are not available to satisfy claims of our depositors or other creditors. Accordingly, we account for our trust accounts separately from our banking accounts. However, if our trust operations fail to preserve the principal of our clients' trust assets, we are responsible for covering the deficit either from previously established provisions in our trust accounts or by a transfer from our banking accounts. In 2019 and 2020, we did not transfer any funds from our banking accounts to cover deficits in our trust accounts. Surplus funds generated by the trust assets may be deposited into the clients' accounts and earn interest. We reflect trust fees earned by us on our trust account management services as other operating revenues in the income statement of the banking accounts.

Sources of Funds

In addition to our capital and reserves, we obtain funds primarily from:

- borrowings from the Government;
- issuances of bonds in the domestic and international capital markets;
- borrowings from international financial institutions or foreign banks; and
- deposits.

All of our borrowings are unsecured.

Borrowings from the Government

We borrow from the Government's general purpose funds and its special purpose funds. General purpose loans generally are in Won and have fixed interest rates and maturities ranging from five to 20 years. We incur special purpose loans, principally from the Tourism Promotion Fund, the Rational Use of Energy Fund and the Small- and Medium-sized Enterprises Promotion Fund, in connection with specific projects we finance. The Government links the interest rate and maturity of each special purpose borrowing to the terms of the financing we provide for the specific project.

The following table sets out our Government borrowings as of December 31, 2020:

Type of Funds Borrowed	As of December 31, 2020 (billions of won)
General Purpose	₩ 125.1
Special Purpose	4,091.6
Total	₩4,216.7

Domestic and International Capital Markets

We issue industrial finance bonds both in Korea and abroad, some of which the Government directly guarantees. We generally issue domestic bonds at fixed interest rates with original maturities of one to ten years.

The following table sets out the outstanding balance of our industrial finance bonds as of December 31, 2020:

Outstanding Balance	As of December 31, 2020 (billions of won)
Denominated in Won	₩108,874.7
Denominated in Other Currencies	30,412.4
Total	₩139,287.1

The KDB Act provides that the aggregate outstanding principal amount of our industrial finance bonds, other than those directly guaranteed or purchased by the Government, plus the aggregate outstanding amount of debt (including bonds and loans) guaranteed or purchased by us, other than those excepted by the KDB Act, may not exceed 30 times the sum of our paid-in capital and our reserve from profit. As of December 31, 2020, the aggregate amount of our industrial finance bonds and guarantee obligations (including guarantee obligations relating to loans that had not been borrowed as of December 31, 2020) was ₩146,709.2 billion, equal to 21.0% of our authorized amount under the KDB Act, which was ₩698,037.3 billion.

In 2020, we issued ₩56.7 trillion in Won-denominated industrial finance bonds and ₩9.6 trillion in industrial finance bonds denominated in other currencies. In 2021, we are targeting to issue approximately ₩55 trillion in Won-denominated industrial finance bonds and approximately ₩9.0 trillion in industrial finance bonds denominated in other currencies, subject to change depending on our funding needs and market conditions.

Foreign Currency Borrowings

We borrow money from institutions, principally syndicates of commercial banks, outside the Republic in foreign currencies. We frequently enter into related interest rate and currency swap transactions. The loans generally have original maturities of one to five years. As of December 31, 2020, the outstanding amount of our foreign currency borrowings was US$11.8 billion.

Our long term and short term foreign currency borrowings decreased to ₩12,795.0 billion as of December 31, 2020 from ₩14,275.2 billion as of December 31, 2019.

Deposits

We take demand deposits and time and savings deposits from the general public. Time and savings deposits generally have maturities shorter than three years and bear interest at fixed rates. As of December 31, 2020, demand deposits held by us totaled ₩2,249.4 billion and time and savings deposits held by us totaled ₩39,873.0 billion.

Debt

Debt Repayment Schedule

The following table sets out our principal repayment schedule as of December 31, 2020:

Debt Principal Repayment Schedule[1]

Currency[2][3]	Maturing on or before December 31, 2021	2022	2023	2024	Thereafter
			(billions of won)		
Won	₩54,033.4	₩28,976.6	₩14,944.3	₩3,652.5	₩11,440.9
Foreign	18,259.1	7,489.2	6,509.9	3,858.3	7,090.8
Total Won Equivalent	₩72,292.5	₩36,465.8	₩21,454.2	₩7,510.8	₩18,531.7

(1) Excludes bonds sold under repurchase agreements and call money.
(2) Borrowings in foreign currencies have been translated into Won at the market average exchange rates on December 31, 2020, as announced by the Seoul Money Brokerage Services Ltd.
(3) We categorize debt with respect to which we have entered into currency swap agreements by our repayment currency under such agreements.

The following table summarizes, as of December 31 of the years indicated, our outstanding direct internal debt:

Direct Internal Debt

	(billions of Won)
2016	92,692.8
2017	103,339.2
2018	103,443.1
2019	97,087.8
2020	113,091.4

The following table summarizes, as of December 31 of the years indicated, our outstanding direct external debt:

Direct External Debt

	(billions of Won)
2016	38,264.9
2017	34,772.6
2018	41,873.4
2019	41,640.2
2020	42,207.6

The following table sets out, by currency and the equivalent amount in U.S. Dollars, our outstanding external bonds as of December 31, 2020:

External Bonds

	Amount in Original Currency	Equivalent Amount in U.S. Dollars[1]
	(millions)	
US$	US$19,339.7	US$19,339.7
Japanese Yen (¥)	¥ 50,000.0	484.5
Euro (EUR)	EUR 1,579.3	1,942.5
Singapore dollar (SGD)	SGD 40.0	30.2
Hong Kong dollar (HKD)	HKD 4,352.0	561.4
Chinese offshore renminbi (CNH)	CNH 5,912.0	907.5
Swiss franc (CHF)	CHF 600.0	680.7
Brazilian real (BRL)	BRL 3,883.0	747.5
Australian dollar (AUD)	AUD 2,309.9	1,776.1
Great Britain Sterling (GBP)	GBP 547.0	745.3
Norwegian Krone (NOK)	NOK 400.0	46.9
Indonesian Rupiah (IDR)	IDR 2,241,000.0	159.1
Indian Rupee (INR)	INR 3,200.0	43.8
Swedish Krona (SEK)	SEK 1,410.0	172.0
Mexican Peso (MXN)	MXN 1,690.0	85.0
Thai Baht (THB)	THB 4,580.0	153.0
Total		US$27,875.2

(1) Amounts expressed in currencies other than US$ are converted to US$ at the exchange rate announced by the Seoul Money Brokerage Services, Ltd. in effect on December 31, 2020.

For further information on our outstanding indebtedness, see "—Tables and Supplementary Information."

Debt Record

We have never defaulted in the payment of principal or interest on any of our obligations.

Overseas Operations

We operate overseas subsidiaries in Hong Kong, Dublin, Budapest, Sao Paulo, Tashkent and Jakarta. The subsidiaries engage in a variety of banking and merchant banking services, including:

- managing and underwriting new securities issues;
- syndicating medium and long-term loans;
- trading securities;
- trading in the money market; and
- providing investment management and advisory services.

We currently maintain ten branches in Tokyo, Shanghai, Singapore, New York City, London, Beijing, Guangzhou, Qingdao, Shenyang and Yangon, and seven overseas representative offices in Frankfurt, Ho Chi Minh City, Abu Dhabi, Moscow, Sydney, Bangkok and Jakarta.

Property

Our head office is located at 14 Eunhaeng-ro, Yeongdeungpo-gu, Seoul, Korea, a 35,996 square meter building completed in July 2001 and owned by us. In addition to the head office, we maintain 61 branches in major cities throughout the Republic, including 18 in Seoul. We generally lease our domestic and overseas offices under long-term leases.

Directors and Management; Employees

Our Board of Directors has ultimate responsibility for management of our affairs. Under the KDB Act and our Articles of Incorporation, our Board of Directors is to consist of one Chief Executive Officer (who also serves as the Chairman of the Board of Directors), one Chief Operating Officer and not more than eight directors. Under the KDB Act, the President of the Republic appoints our Chief Executive Officer and Chairman of the Board of Directors upon the recommendation of the Chairman of the Financial Services Commission. The Financial Services Commission appoints all of our directors upon the recommendation of our Chief Executive Officer. Under our Articles of Incorporation, our executive directors serve for three-year terms and they may be re-appointed, and our independent non-executive directors serve for two-year terms and they may be re-appointed; provided, however, that our independent non-executive directors shall not serve more than one year for each reappointment and shall not serve more than five years consecutively.

Currently, the members of our Board of Directors are:

Position	Name	Expiration of Term
Chief Executive Officer and Chairman of the Board of Directors	Dong Gull Lee	September 10, 2023
Chief Operating Officer and Vice Chairman of the Board of Directors	Joo Yung Sung	January 2, 2022
Auditor	Tae Hyun Joo	March 14, 2024
Independent Non-executive Directors	Nam Joon Kim	June 27, 2021
	Dong Han Yook	June 28, 2022
	Yoon Lee	July 31, 2021
	Yeong Ook Kim	May 25, 2023
	Kyo Deog Son	March 29, 2022

As of December 31, 2020, we employed 3,541 persons with 2,158 persons located in our Seoul head office.

Tables and Supplementary Information

A. External Debt of KDB

(1) External Bonds of KDB

Currency	Original Principal Amount	Interest Rate (%)	Issue Date	Maturity Date	Principal Amount Outstanding as of December 31, 2020
USD	750,000,000	4.625	November 16, 2011	November 16, 2021	750,000,000
USD	300,000,000	3.000	September 14, 2012	September 14, 2022	300,000,000
USD	350,000,000	3.000	September 14, 2012	September 14, 2022	350,000,000
USD	100,000,000	3.000	September 14, 2012	September 14, 2022	100,000,000
USD	40,000,000	3.810	October 30, 2013	October 30, 2023	40,000,000
USD	30,000,000	4.000	November 1, 2013	November 1, 2023	30,000,000
USD	50,000,000	3.740	November 5, 2013	November 5, 2023	50,000,000

Currency	Original Principal Amount	Interest Rate (%)	Issue Date	Maturity Date	Principal Amount Outstanding as of December 31, 2020
USD	50,000,000	3.700	November 6, 2013	November 6, 2023	50,000,000
USD	50,000,000	3.800	November 13, 2013	November 13, 2023	50,000,000
USD	30,000,000	3.790	November 13, 2013	November 13, 2023	30,000,000
USD	50,000,000	3.750	November 15, 2013	November 15, 2023	50,000,000
USD	30,000,000	3.680	November 26, 2013	November 26, 2023	30,000,000
USD	20,000,000	3.660	November 26, 2013	November 26, 2023	20,000,000
USD	30,000,000	3.680	November 26, 2013	November 26, 2023	30,000,000
USD	50,000,000	3.800	December 12, 2013	December 12, 2023	50,000,000
USD	20,000,000	3.800	December 18, 2013	December 18, 2023	20,000,000
USD	20,000,000	3.810	December 18, 2013	December 18, 2023	20,000,000
USD	750,000,000	3.750	January 22, 2014	January 22, 2024	750,000,000
USD	200,000,000	3.850	February 20, 2014	February 20, 2024	200,000,000
USD	20,000,000	3.720	April 9, 2014	April 9, 2024	20,000,000
USD	30,000,000	3.720	April 10, 2014	April 10, 2024	30,000,000
USD	30,000,000	3.700	April 11, 2014	April 11, 2024	30,000,000
USD	50,000,000	3.700	April 11, 2014	April 11, 2024	50,000,000
USD	30,000,000	3.605	April 29, 2014	April 29, 2024	30,000,000
USD	50,000,000	3.620	April 29, 2014	April 29, 2024	50,000,000
USD	20,000,000	3.615	April 30, 2014	April 30, 2024	20,000,000
USD	50,000,000	3.250	November 14, 2014	November 14, 2024	50,000,000
USD	50,000,000	2.730	February 6, 2015	February 6, 2027	50,000,000
USD	30,000,000	3.010	June 24, 2015	June 24, 2025	30,000,000
USD	50,000,000	3.376	July 9, 2015	July 9, 2025	50,000,000
USD	50,000,000	3.330	July 22, 2015	July 22, 2025	50,000,000
USD	50,000,000	3.200	August 6, 2015	August 6, 2025	50,000,000
USD	350,000,000	3.375	September 16, 2015	September 16, 2025	350,000,000
USD	400,000,000	3.375	September 16, 2015	September 16, 2025	400,000,000
USD	1,000,000,000	3.000	January 13, 2016	January 13, 2026	1,000,000,000
USD	500,000,000	2.500	January 13, 2016	January 13, 2021*	500,000,000
USD	50,000,000	2.690	March 30, 2016	March 30, 2026	50,000,000
USD	150,000,000	3M USD Libor+0.95	April 12, 2016	April 12, 2021*	150,000,000
USD	11,700,000	1.530	July 5, 2016	July 5, 2022	11,700,000
USD	53,000,000	2.180	August 10, 2016	August 10, 2026	53,000,000
USD	500,000,000	2.000	September 12, 2016	September 12, 2026	500,000,000
USD	50,000,000	2.530	November 10, 2016	November 10, 2028	50,000,000
USD	20,000,000	2.625	December 14, 2016	December 14, 2021	20,000,000
USD	50,000,000	3.088	January 17, 2017	January 17, 2027	50,000,000
USD	500,000,000	3M USD Libor+0.705	February 27, 2017	February 27, 2022	500,000,000
USD	500,000,000	2.625	February 27, 2017	February 27, 2022	500,000,000
USD	50,000,000	2.760	March 31, 2017	March 31, 2022	50,000,000
USD	30,000,000	2.580	June 16, 2017	June 16, 2022	30,000,000
USD	300,000,000	3M USD Libor+0.725	July 6, 2017	July 6, 2022	300,000,000
USD	150,000,000	3M USD Libor+0.705	September 19, 2017	February 27, 2022	150,000,000
USD	350,000,000	2.750	September 19, 2017	March 19, 2023	350,000,000
USD	300,000,000	3M USD Libor+0.8	October 30, 2017	October 30, 2022	300,000,000
USD	20,000,000	2.890	January 29, 2018	January 29, 2021*	20,000,000
USD	50,000,000	3.800	January 29, 2018	January 29, 2038	50,000,000
USD	20,000,000	3M USD Libor+0.6	February 12, 2018	February 12, 2023	20,000,000
USD	20,000,000	3M USD Libor+0.52	March 6, 2018	March 6, 2021*	20,000,000
USD	500,000,000	3M USD Libor+0.55	March 12, 2018	March 12, 2021*	500,000,000
USD	500,000,000	3.375	March 12, 2018	March 12, 2023	500,000,000
USD	50,000,000	3M USD Libor+0.45	March 13, 2018	March 13, 2021*	50,000,000
USD	50,000,000	3M USD Libor+0.45	March 14, 2018	March 14, 2021*	50,000,000
USD	50,000,000	3M USD Libor+0.45	March 15, 2018	March 15, 2021*	50,000,000
USD	50,000,000	4.100	March 19, 2018	March 19, 2048	50,000,000
USD	20,000,000	3M USD Libor+0.61	May 14, 2018	May 14, 2023	20,000,000
USD	150,000,000	3M USD Libor+0.43	September 14, 2018	September 14, 2021	150,000,000
USD	50,000,000	3M USD Libor+0.4	January 4, 2019	January 11, 2021*	50,000,000
USD	50,000,000	3M USD Libor+0.375	January 22, 2019	January 22, 2021*	50,000,000
USD	500,000,000	3.000	February 19, 2019	March 19, 2022	500,000,000
USD	500,000,000	3.250	February 19, 2019	February 19, 2024	500,000,000
USD	50,000,000	3M USD Libor+0.37	March 4, 2019	March 4, 2021*	50,000,000
USD	100,000,000	3M USD Libor+0.42	March 28, 2019	March 28, 2022	100,000,000
USD	50,000,000	3M USD Libor+0.42	April 1, 2019	April 1, 2022	50,000,000

Currency	Original Principal Amount	Interest Rate (%)	Issue Date	Maturity Date	Principal Amount Outstanding as of December 31, 2020
USD	50,000,000	3M USD Libor+0.38	May 31, 2019	May 31, 2022	50,000,000
USD	50,000,000	3M USD Libor+0.37	July 5, 2019	July 5, 2022	50,000,000
USD	50,000,000	3M USD Libor+0.29	July 26, 2019	July 26, 2021	50,000,000
USD	50,000,000	3M USD Libor+0.4	August 15, 2019	August 15, 2022	50,000,000
USD	100,000,000	3M USD Libor+0.41	August 30, 2019	August 30, 2022	100,000,000
USD	100,000,000	3M USD Libor+0.3	September 17, 2019	September 17, 2021	100,000,000
USD	50,000,000	3M USD Libor+0.3	September 17, 2019	September 17, 2021	50,000,000
USD	500,000,000	2.125	October 1, 2019	October 1, 2024	500,000,000
USD	48,000,000	3M USD Libor+0.475	October 1, 2019	October 1, 2022	48,000,000
USD	452,000,000	3M USD Libor+0.475	October 1, 2019	October 1, 2022	452,000,000
USD	50,000,000	3M USD Libor+0.32	October 15, 2019	October 15, 2021	50,000,000
USD	50,000,000	3M USD Libor+0.405	October 21, 2019	October 21, 2022	50,000,000
USD	50,000,000	3M USD Libor+0.32	October 31, 2019	October 29, 2021	50,000,000
USD	20,000,000	3M USD Libor+0.31	November 7, 2019	November 7, 2021	20,000,000
USD	50,000,000	3M USD Libor+0.45	November 13, 2019	November 14, 2022	50,000,000
USD	50,000,000	3M USD Libor+0.45	November 14, 2019	November 14, 2022	50,000,000
USD	50,000,000	3M USD Libor+0.37	January 23, 2020	January 24, 2023	50,000,000
USD	30,000,000	3M USD Libor+0.35	January 29, 2020	January 29, 2023	30,000,000
USD	750,000,000	3M USD Libor+0.35	February 18, 2020	February 18, 2023	750,000,000
USD	750,000,000	1.750	February 18, 2020	February 18, 2025	750,000,000
USD	100,000,000	3M USD Libor+0.335	March 10, 2020	March 10, 2022	100,000,000
USD	500,000,000	3M USD Libor+1.45	April 16, 2020	April 16, 2023	500,000,000
USD	32,000,000	3M USD Libor+1.35	April 22, 2020	October 22, 2025	32,000,000
USD	30,000,000	3M USD Libor+1.3	April 22, 2020	April 22, 2024	30,000,000
USD	50,000,000	3M USD Libor+1.3	April 28, 2020	April 28, 2025	50,000,000
USD	20,000,000	3M USD Libor+1.1	April 28, 2020	April 28, 2023	20,000,000
USD	40,000,000	3M USD Libor+1.25	April 29, 2020	April 29, 2025	40,000,000
USD	50,000,000	3M USD Libor+1.2	May 7, 2020	May 7, 2025	50,000,000
USD	45,000,000	3M USD Libor+0.8	May 11, 2020	May 11, 2021*	45,000,000
USD	50,000,000	3M USD Libor+1.13	May 15, 2020	May 15, 2025	50,000,000
USD	50,000,000	1.360	May 15, 2020	May 15, 2023	50,000,000
USD	58,000,000	3M USD Libor+1.13	May 18, 2020	May 18, 2023	58,000,000
USD	50,000,000	3M USD Libor+1	May 19, 2020	May 27, 2023	50,000,000
USD	15,000,000	3M USD Libor+1	May 26, 2020	May 26, 2023	15,000,000
USD	50,000,000	1.350	May 27, 2020	May 27, 2023	50,000,000
USD	500,000,000	1.250	June 3, 2020	June 3, 2025	500,000,000
USD	500,000,000	1.250	June 3, 2020	June 3, 2025	500,000,000
USD	50,000,000	3M USD Libor+0.55	June 23, 2020	June 23, 2023	50,000,000
USD	25,000,000	3M USD Libor+0.7	June 23, 2020	June 23, 2023	25,000,000
USD	100,000,000	3M USD Libor+0.4	June 24, 2020	June 24, 2021*	100,000,000
USD	40,000,000	0.630	June 29, 2020	June 29, 2021	40,000,000
USD	100,000,000	3M USD Libor+0.34	July 14, 2020	July 14, 2021	100,000,000
USD	50,000,000	3M USD Libor+0.3	July 16, 2020	July 16, 2021	50,000,000
USD	100,000,000	3M USD Libor+0.45	July 20, 2020	January 20, 2022	100,000,000
USD	45,000,000	3M USD Libor+0.45	July 24, 2020	January 24, 2022	45,000,000
USD	40,000,000	3M USD Libor+0.45	July 31, 2020	February 17, 2022	40,000,000
USD	40,000,000	3M USD Libor+0.45	August 3, 2020	February 3, 2022	40,000,000
USD	45,000,000	3M USD Libor+0.55	August 11, 2020	August 11, 2023	45,000,000
USD	50,000,000	3M USD Libor+0.35	August 31, 2020	September 7, 2021	50,000,000
USD	50,000,000	3M USD Libor+0.3	September 2, 2020	September 3, 2021	50,000,000
USD	50,000,000	3M USD Libor+0.3	September 3, 2020	September 4, 2021	50,000,000
USD	200,000,000	SOFR+0.55	September 21, 2020	March 21, 2022	200,000,000
USD	50,000,000	0.720	September 22, 2020	September 22, 2023	50,000,000
USD	500,000,000	0.800	October 27, 2020	April 27, 2026	500,000,000
USD	150,000,000	0.500	October 27, 2020	October 27, 2023	150,000,000
USD	350,000,000	0.500	October 27, 2020	October 27, 2023	350,000,000
USD	40,000,000	3M USD Libor+0.23	November 20, 2020	November 22, 2021	40,000,000
USD	100,000,000	3M USD Libor+0.22	November 30, 2020	May 31, 2022	100,000,000
USD	50,000,000	3M USD Libor+0.22	December 1, 2020	June 1, 2022	50,000,000
USD	50,000,000	0.440	December 1, 2020	June 1, 2022	50,000,000
USD	20,000,000	0.470	December 2, 2020	June 2, 2022	20,000,000
USD	30,000,000	0.520	December 9, 2020	December 8, 2023	30,000,000
USD	50,000,000	0.430	December 23, 2020	June 23, 2022	50,000,000
		Subtotal in Original Currency			USD 19,339,700,000
		Subtotal in Equivalent Amount of Won[(1)]			₩ 21,041,593,600,000

Currency	Original Principal Amount	Interest Rate (%)	Issue Date	Maturity Date	Principal Amount Outstanding as of December 31, 2020	
SGD	20,000,000	3M SOR+0.26	August 5, 2020	August 5, 2021		20,000,000
SGD	20,000,000	0.430	September 4, 2020	September 4, 2021		20,000,000
		Subtotal in Original Currency			SGD	40,000,000
		Subtotal in Equivalent Amount of Won[2]			₩	32,888,800,000
JPY	50,000,000,000	0.230	September 4, 2018	September 3, 2021		50,000,000,000
		Subtotal in Original Currency			JPY	50,000,000,000
		Subtotal in Equivalent Amount of Won[3]			₩	527,130,000,000
HKD	388,000,000	4.420	April 4, 2011	April 12, 2021*		388,000,000
HKD	89,000,000	3.600	September 16, 2011	September 16, 2021		89,000,000
HKD	303,000,000	4.300	October 21, 2011	October 21, 2021		303,000,000
HKD	1,042,000,000	3.200	April 3, 2014	October 3, 2021		1,042,000,000
HKD	113,000,000	1.980	April 7, 2016	March 30, 2021*		113,000,000
HKD	350,000,000	2.060	October 25, 2016	October 25, 2023		350,000,000
HKD	205,000,000	2.570	October 27, 2017	October 27, 2022		205,000,000
HKD	162,000,000	2.685	December 19, 2017	December 19, 2022		162,000,000
HKD	390,000,000	2.053	November 8, 2019	November 8, 2024		390,000,000
HKD	243,000,000	2.214	November 26, 2019	November 26, 2024		243,000,000
HKD	201,000,000	1.850	February 27, 2020	February 27, 2023		201,000,000
HKD	160,000,000	2.100	March 25, 2020	March 25, 2025		160,000,000
HKD	300,000,000	2.100	April 14, 2020	April 14, 2023		300,000,000
HKD	250,000,000	3M Hibor+1.03	April 27, 2020	April 27, 2024		250,000,000
HKD	156,000,000	0.635	September 2, 2020	September 2, 2021		156,000,000
		Subtotal in Original Currency			HKD	4,352,000,000
		Subtotal in Equivalent Amount of Won[4]			₩	610,803,200,000
CNH	150,000,000	4.450	November 8, 2013	November 8, 2023		150,000,000
CNH	210,000,000	4.100	December 18, 2013	December 18, 2023		210,000,000
CNH	150,000,000	5.450	February 14, 2017	February 14, 2021*		150,000,000
CNH	150,000,000	5.265	February 21, 2017	February 21, 2021*		150,000,000
CNH	300,000,000	4.585	February 13, 2018	February 13, 2021*		300,000,000
CNH	120,000,000	4.600	February 22, 2018	February 22, 2021*		120,000,000
CNH	130,000,000	4.650	February 27, 2018	February 27, 2021*		130,000,000
CNH	190,000,000	4.650	March 12, 2018	March 12, 2021*		190,000,000
CNH	150,000,000	4.550	May 21, 2018	May 21, 2021*		150,000,000
CNH	1,750,000,000	4.600	July 3, 2018	July 3, 2021		1,750,000,000
CNH	200,000,000	4.220	July 24, 2018	July 23, 2021		200,000,000
CNH	250,000,000	2.850	February 3, 2020	February 3, 2021*		250,000,000
CNH	287,000,000	3.010	May 6, 2020	May 6, 2025		287,000,000
CNH	400,000,000	2.150	May 13, 2020	May 13, 2021*		400,000,000
CNH	355,000,000	2.700	May 14, 2020	May 14, 2023		355,000,000
CNH	250,000,000	2.600	May 15, 2020	May 15, 2023		250,000,000
CNH	250,000,000	2.650	May 15, 2020	May 15, 2023		250,000,000
CNH	150,000,000	2.800	August 12, 2020	August 12, 2022		150,000,000
CNH	200,000,000	2.800	September 1, 2020	September 1, 2022		200,000,000
CNH	270,000,000	2.800	September 7, 2020	September 7, 2022		270,000,000
		Subtotal in Original Currency			CNH	5,912,000,000
		Subtotal in Equivalent Amount of Won[5]			₩	987,067,520,000
EUR	64,000,000	0.240	November 25, 2016	November 25, 2021		64,000,000
EUR	40,290,000	0.160	December 1, 2016	December 1, 2021		40,290,000
EUR	500,000,000	0.625	July 17, 2018	July 17, 2023		500,000,000
EUR	300,000,000	0.625	November 6, 2018	July 17, 2023		300,000,000
EUR	300,000,000	0.000	July 10, 2019	July 10, 2024		300,000,000
EUR	200,000,000	0.000	July 10, 2019	July 10, 2024		200,000,000
EUR	10,000,000	3M Euribor+0.7	December 12, 2019	December 12, 2024		10,000,000
EUR	25,000,000	0.000	December 23, 2019	December 23, 2021		25,000,000
EUR	50,000,000	3M Euribor+0.8	August 17, 2020	August 17, 2022		50,000,000
EUR	40,000,000	0.000	September 3, 2020	September 3, 2021		40,000,000
EUR	25,000,000	3M Euribor+0.8	September 7, 2020	September 7, 2022		25,000,000
EUR	25,000,000	3M Euribor+0.8	October 14, 2020	October 14, 2022		25,000,000
		Subtotal in Original Currency			EUR	1,579,290,000

Currency	Original Principal Amount	Interest Rate (%)	Issue Date	Maturity Date	Principal Amount Outstanding as of December 31, 2020	
		Subtotal in Equivalent Amount of Won[6]			₩	2,113,469,049,600
CHF	200,000,000	0.303	June 14, 2018	June 14, 2023		200,000,000
CHF	100,000,000	0.050	August 2, 2018	December 23, 2022		100,000,000
CHF	300,000,000	0.445	May 8, 2020	May 8, 2025		300,000,000
		Subtotal in Original Currency			CHF	600,000,000
		Subtotal in Equivalent Amount of Won[7]			₩	740,598,000,000
BRL	378,000,000	5.900	February 21, 2019	February 23, 2021*		378,000,000
BRL	370,000,000	5.820	February 22, 2019	January 28, 2021*		370,000,000
BRL	501,000,000	3.100	April 2, 2020	April 6, 2021*		501,000,000
BRL	275,000,000	3.164	May 12, 2020	December 14, 2021		275,000,000
BRL	115,000,000	3.300	May 13, 2020	December 14, 2021		115,000,000
BRL	265,000,000	3.010	July 13, 2020	June 23, 2022		265,000,000
BRL	266,000,000	3.000	July 14, 2020	June 23, 2022		266,000,000
BRL	257,000,000	3.010	August 5, 2020	July 28, 2022		257,000,000
BRL	160,000,000	3.010	August 6, 2020	July 28, 2022		160,000,000
BRL	250,000,000	2.845	September 1, 2020	August 4, 2022		250,000,000
BRL	250,000,000	2.851	September 2, 2020	August 4, 2022		250,000,000
BRL	264,000,000	3.095	September 17, 2020	September 2, 2022		264,000,000
BRL	265,000,000	4.470	December 3, 2020	December 22, 2022		265,000,000
BRL	267,000,000	3.980	December 7, 2020	October 21, 2022		267,000,000
		Subtotal in Original Currency			BRL	3,883,000,000
		Subtotal in Equivalent Amount of Won[8]			₩	813,372,010,000
AUD	20,000,000	3.370	February 11, 2015	February 11, 2022		20,000,000
AUD	22,900,000	2.550	July 5, 2016	July 5, 2022		22,900,000
AUD	100,000,000	3.966	November 30, 2016	November 30, 2026		100,000,000
AUD	60,000,000	3.760	January 18, 2018	January 18, 2028		60,000,000
AUD	100,000,000	3M BBSW+0.98	October 19, 2018	October 19, 2023		100,000,000
AUD	300,000,000	3M BBSW+0.98	October 19, 2018	October 19, 2023		300,000,000
AUD	100,000,000	3M BBSW+0.78	August 29, 2019	August 29, 2024		100,000,000
AUD	400,000,000	3M BBSW+0.78	August 29, 2019	August 29, 2024		400,000,000
AUD	200,000,000	1.500	August 29, 2019	August 29, 2024		200,000,000
AUD	50,000,000	1.515	November 19, 2019	November 19, 2022		50,000,000
AUD	26,000,000	1.510	November 19, 2019	November 19, 2022		26,000,000
AUD	74,000,000	1.460	February 24, 2020	February 24, 2025		74,000,000
AUD	74,000,000	1.460	February 24, 2020	February 24, 2025		74,000,000
AUD	74,000,000	1.450	February 25, 2020	February 25, 2025		74,000,000
AUD	74,000,000	1.450	February 25, 2020	February 25, 2025		74,000,000
AUD	300,000,000	0.833	August 25, 2020	August 25, 2023		300,000,000
AUD	200,000,000	3M BBSW+0.62	August 25, 2020	August 25, 2023		200,000,000
AUD	135,000,000	3M BBSW+0.11	December 1, 2020	December 1, 2021		135,000,000
		Subtotal in Original Currency			AUD	2,309,900,000
		Subtotal in Equivalent Amount of Won[9]			₩	1,932,369,944,000
IDR	670,000,000,000	7.00	November 30, 2017	November 30, 2022		670,000,000,000
IDR	680,000,000,000	6.000	January 22, 2020	January 22, 2025		680,000,000,000
IDR	615,000,000,000	6.000	January 23, 2020	January 23, 2025		615,000,000,000
IDR	276,000,000,000	6.350	February 28, 2020	February 28, 2021*		276,000,000,000
		Subtotal in Original Currency			IDR	2,241,000,000,000
		Subtotal in Equivalent Amount of Won[10]			₩	173,453,400,000
INR	3,200,000,000	6.90	February 20, 2018	February 20, 2023		3,200,000,000
		Subtotal in Original Currency			INR	3,200,000,000
		Subtotal in Equivalent Amount of Won[11]			₩	47,552,000,000
NOK	400,000,000	2.905	July 21, 2015	July 21, 2025		400,000,000
		Subtotal in Original Currency			NOK	400,000,000
		Subtotal in Equivalent Amount of Won[12]			₩	50,992,000,000
THB	1,500,000,000	1.580	January 14, 2020	January 14, 2025		1,500,000,000
THB	1,500,000,000	1.530	January 15, 2020	January 15, 2025		1,500,000,000

Currency	Original Principal Amount	Interest Rate (%)	Issue Date	Maturity Date	Principal Amount Outstanding as of December 31, 2020	
THB	1,580,000,000	1.170	March 3, 2020	March 3, 2025		1,580,000,000
		Subtotal in Original Currency			THB	4,580,000,000
		Subtotal in Equivalent Amount of Won[13]			₩	166,437,200,000
GBP	250,000,000	1.750	October 31, 2017	December 15, 2022		250,000,000
GBP	35,000,000	1.267	November 21, 2019	November 21, 2022		35,000,000
GBP	35,000,000	1.267	November 21, 2019	November 21, 2022		35,000,000
GBP	35,000,000	1.230	November 22, 2019	November 22, 2022		35,000,000
GBP	35,000,000	1.230	November 22, 2019	November 22, 2022		35,000,000
GBP	30,000,000	1.230	November 22, 2019	November 22, 2022		30,000,000
GBP	36,000,000	1.279	November 26, 2019	November 26, 2022		36,000,000
GBP	36,000,000	1.270	November 26, 2019	November 26, 2022		36,000,000
GBP	30,000,000	0.437	July 16, 2020	July 16, 2022		30,000,000
GBP	25,000,000	3M GBP Libor+0.3	September 1, 2020	September 1, 2021		25,000,000
		Subtotal in Original Currency			GBP	547,000,000
		Subtotal in Equivalent Amount of Won[14]			₩	810,872,800,000
SEK	400,000,000	1.83	August 10, 2017	August 10, 2027		400,000,000
SEK	400,000,000	1.815	August 16, 2017	August 16, 2027		400,000,000
SEK	410,000,000	1.74	November 30, 2017	November 30, 2027		410,000,000
SEK	200,000,000	2.01	February 27, 2018	February 27, 2028		200,000,000
		Subtotal in Original Currency			SEK	1,410,000,000
		Subtotal in Equivalent Amount of Won[15]			₩	187,205,700,000
MXN	490,000,000	5.620	April 29, 2020	April 29, 2021*		490,000,000
MXN	1,200,000,000	6.000	May 7, 2020	May 7, 2023		1,200,000,000
		Subtotal in Original Currency			MXN	1,690,000,000
		Subtotal in Equivalent Amount of Won[16]			₩	92,459,900,000
Total External Bonds of KDB in Equivalent Amount of Won					₩	30,328,265,123,600

* Repaid on the respective maturity dates.

(1) U.S. dollar amounts are converted to Won amounts at the rate of US$1.00 to Won 1,088.00, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(2) Singapore dollar amounts are converted to Won amounts at the rate of SGD 1.00 to Won 822.22, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(3) Japanese yen amounts are converted to Won amounts at the rate of JPY 100.00 to Won 1,054.26, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(4) Hong Kong dollar amounts are converted to Won amounts at the rate of HKD 1.00 to Won 140.35, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(5) Chinese offshore renminbi amounts are converted to Won amounts at the rate of CNH 1.00 to Won 166.96, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(6) Euro amounts are converted to Won amounts at the rate of EUR 1.00 to Won 1,338.24, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(7) Swiss franc amounts are converted to Won amounts at the rate of CHF 1.00 to Won 1,234.33, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(8) Brazilian real amounts are converted to Won amounts at the rate of BRL 1.00 to Won 209.47, the prevailing market rate on December 31, 2020.

(9) Australian dollar amounts are converted to Won amounts at the rate of AUD 1.00 to Won 836.56, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(10) Indonesian rupiah amounts are converted to Won amounts at the rate of IDR 100.00 to Won 7.74, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(11) Indian Rupee amounts are converted to Won amounts at the rate of INR 1.00 to Won 14.86, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(12) Norwegian Krone amounts are converted to Won amounts at the rate of NOK 1.00 to Won 127.48, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(13) Thai Baht amounts are converted to Won amounts at the rate of THB 1.00 to Won 36.34, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(14) Great Britain Sterling amounts are converted to Won amounts at the rate of GBP 1.00 to Won 1,482.40, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(15) Swedish Krona amounts are converted to Won amounts at the rate of SEK 1.00 to Won 132.77, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(16) Mexican Peso amounts are converted to Won amounts at the rate of MXN 1.00 to Won 54.71, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(2) External Borrowings of KDB

Lender	Classifications	Range of Interest Rates	Range of Years of Issue	Range of Years of Maturity	Principal Amount Outstanding as of December 31, 2020[1]
		(%)			(millions of Won)
Mizuho and others	Borrowings from foreign banks	3M Libor + 0.20 ~ 3M Libor + 0.78	2016~2020	2021	435,200
Ministry of Economy and Finance	Exchange equalization fund borrowings in foreign currencies	3M Libor + 0.22 ~ 3M Libor + 0.74	2014~2015	2022~2024	183,360
Central Bank of the Republic of Uzbekistan and others	Off-shore short-term borrowings	0.25 ~ 2.50	2020	2021	1,487,973
HSBC and others	Off-shore long-term borrowings	3M Libor + 0.36 ~ 3M Libor + 0.50	2018~2020	2021	302,692
Others	Short-term borrowings in foreign currency	0.04 ~ 3.86	2020	2021	8,567,852
	Long-term borrowings in foreign currency	0.09 ~ 2.49	2016~2020	2021~2022	809,796
Total External Borrowings of KDB					₩11,786,873

(1) Converted to Won amounts at the relevant market average exchange rates in effect on December 31, 2020 as announced by Seoul Money Brokerage Services, Ltd.

B. Internal Debt of KDB

Title	Range of Interest Rates (%)	Range of Years of Issue	Range of Years of Original Maturity	Principal Amounts Outstanding as of December 31, 2020 (millions of Won)
1. Bonds				
Short-term Industrial Finance Bonds	0.69~0.98	2020	2021	2,200,000
Long-term Industrial Finance Bonds	0.55~6.6	2006~2020	2021~2050	106,674,745
Total Bonds	1.22~6.6	2005~2019	2020~2046	108,874,745
2. Borrowings				
Borrowings from the Ministry of Economy and Finance	0.37~0.87	2001~2012	2020~2032	₩ 125,101
Borrowings from Small & Medium Business Corp.	0.55~2.76	2011~2020	2021~2032	64,892
Borrowings from the Ministry of Culture and Tourism	0.05~2.00	2010~2020	2021~2032	2,934,681
Borrowings from Korea Energy Management Corporation	0.25~2.80	2006~2020	2021~2035	295,088
Others[1]	0.00~3.15	2003~2020	2019~2044	796,897
Total Borrowings[2]				4,216,659
3. Other Debt[3]				1,875,504
Total Internal Floating Debt[4]				2,573,881
Total Internal Funded Debt[5]				110,517,523
Total Internal Debt				₩113,091,404

(1) Includes borrowings from local governments, The Bank of Korea, the petroleum enterprises support fund and others.
(2) Consist of short term borrowings in the amount of ₩373,881 million and long term borrowings in the amount of ₩3,842,778 million.
(3) Other debt includes bonds sold under repurchase agreements and call money.
(4) Floating debt is debt that has a maturity at issuance of less than one year.
(5) Funded debt is debt that has a maturity at issuance of one year or more.

Financial Statements and the Auditors

The Government elects our Auditor who is responsible for examining our financial operations and auditing our financial statements and records. The present Auditor is Tae Hyun Joo, who was appointed by the Financial Services Commission for a three-year term on March 15, 2021.

We prepare our financial statements annually for submission to the Financial Services Commission, accompanied by an opinion of the Auditor. Although we are not legally required to have financial statements audited by external independent auditors, an independent public accounting firm has audited our separate and consolidated financial statements commencing with such financial statements as of and for the year ended December 31, 1998. As of the date of this prospectus, our external independent auditor is Nexia Samduk, located at 12F, S&S Building, 48 Ujeongguk-ro, Jongno-gu, Seoul 03145, Korea, which has audited our separate financial statements as of and for the years ended December 31, 2020 and 2019 included in this prospectus.

Our separate financial statements appearing in this prospectus were prepared in conformity with Korean IFRS, as summarized in "—Financial Statements and the Auditors—Notes to Separate Financial Statements of

December 31, 2020 and 2019—Note 2." These principles and procedures differ in certain material respects from generally accepted accounting principles in the United States.

K-IFRS 1109, *Financial Instruments*, which is aimed at improving and simplifying the accounting treatment of financial instruments, is effective for annual periods beginning on or after January 1, 2018 and replaces K-IFRS 1039, *Financial Instruments: Recognition and Measurement*. We have applied the new accounting standard, K-IFRS 1109, which requires all financial assets to be classified and measured on the basis of an entity's business model for managing financial assets and the contractual cash flow characteristics of the financial assets, in our separate financial statements as of and for the years ended December 31, 2020 and 2019 included in this prospectus.

K-IFRS 1116, *Leases*, is aimed at facilitating a more faithful representation of, and improving the transparency of information relating to, lease-related assets and liabilities, and is effective for annual periods beginning on or after January 1, 2019. K-IFRS 1116, which replaces K-IFRS 1017, *Leases*, requires a lessee to recognize a right-of-use asset representing the lessee's right to use the underlying leased asset and a lease liability representing the present value of the lessee's obligation to make future lease payments. We have applied K-IFRS 1116 in our separate financial statements beginning with the year ended December 31, 2019. For additional information relating to K-IFRS 1116, see "—Notes to Separate Financial Statements of December 31, 2020 and 2019—Note 2(2)."

We generally record our debt securities investments, except for our trading portfolio of marketable debt securities, at the cost of acquisition (including incidental expenses related to purchase), computed on the specific identification method. We record our trading portfolio of marketable debt securities at market value. Starting in April 1999, we record all our debt securities investments at market value except for debt securities invested with the intention of holding until maturity, which we record at the cost of acquisition or amortized cost.

We record the value of our premises and equipment on our statements of financial position on the basis of a revaluation conducted as of July 1, 1998. The Minister of Economy and Finance approved the revaluation in accordance with applicable Korean law. We value additions to premises and equipment since such date at cost.

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Nexia Samduk

Independent Auditors' Report

Based on a report originally issued in Korean

The Board of Directors and Shareholders
Korea Development Bank

Opinion

We have audited the accompanying separate financial statements of Korea Development Bank (the "Bank"), which comprise the separate statements of financial position as of December 31 , 2020 and 2019 and the separate statements of comprehensive income, the separate statements of changes in equity and the separate statements of cash flows for the years then ended, and notes to the separate financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying separate financial statements present fairly, in all material respects, the separate financial position of the Bank as of December 31 , 2020 and 2019, and its separate financial performance and its separate cash flows for the years then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("Korean IFRS").

Basis for Opinion

We conducted our audits in accordance with Korean Standards on Auditing. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Bank in accordance with the ethical requirements of the Republic of Korea that are relevant to our audit of the separate financial statements and we have fulfilled our other ethical responsibilities in accordance with the ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matters

We draw attention to Note 2. (5) of the separate financial statements. As described in Note 2. (5), the pandemic of COVID-19 in 2020 has a negative impact on the global economy and may have negative impacts on the financial position and financial performance of the Bank. Our opinion is not modified in respect of this matter.

Other Matter

Auditing standards and their application in practice vary among countries. The procedures and practices used in the Republic of Korea to audit such financial statements may differ from those generally accepted and applied in other countries.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the separate financial statements in accordance with Korean IFRS, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the separate financial statements, management is responsible for assessing the Bank'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 Bank or to cease operations.

Those charged with governance are responsible for overseeing the Bank's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the separate 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 Korean Standards on Auditing 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 separate financial statements.

As part of an audit in accordance with Korean Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the separate 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 entity'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 Bank'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 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 separate financial statements, including the disclosures, and whether the separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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.

Seoul, Korea
March 29, 2021

This report is effective as of March 29, 2021, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying separate financial statements and notes thereto. Accordingly, the readers of the audit report should understand that the above audit report has not been updated to reflect the impact of such subsequent events or circumstances, if any.

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Korea Development Bank Separate

Statements of Financial Position

December 31, 2020 and 2019

(In millions of won)	Notes	December 31, 2020	December 31, 2019
Assets			
Cash and due from banks	4,45,46,49	₩ 10,528,978	6,592,174
Securities measured at FVTPL	5,45,46,49	8,320,631	7,822,359
Securities measured at FVOCI	6,39,45,46,49	34,141,325	24,249,160
Securities measured at amortized cost	7,39,45,46,49	785,264	1,501,947
Loans measured at FVTPL	8,45,46,49	1,434,514	604,380
Loans measured at amortized cost	9,45,46,49	155,300,178	139,871,642
Derivative financial assets	10,45,46,47,49	8,329,376	5,432,807
Investments in subsidiaries and associates	11,48	25,553,561	24,190,102
Property and equipment, net	12,48	811,382	832,851
Investment property, net	13,48	81,065	66,409
Intangible assets, net	14,48	188,417	230,929
Current tax assets		3,722	5,107
Assets held for sale	16	1,713,347	1,655,406
Other assets	15,45,46,49	4,660,285	4,780,051
Total assets		₩251,852,045	217,835,324
Liabilities			
Financial liabilities measured at FVTPL	17,45,46,49	₩ 1,694,957	2,465,541
Deposits	18,45,46,49	45,879,419	34,663,952
Borrowings	19,45,46,49	18,887,611	20,170,513
Debentures	20,45,46,49	138,318,728	120,623,388
Derivative financial liabilities	10,45,46,47,49	6,305,287	4,171,668
Defined benefit liabilities	21	50,546	53,141
Provisions	22	1,515,170	1,519,864
Deferred tax liabilities	37	1,719,100	931,368
Current tax liabilities		29,691	150,435
Other liabilities	23,45,46,49	7,069,006	7,282,623
Total liabilities		221,469,515	192,032,493
Equity			
Issued capital	1,24	20,765,729	18,663,099
Capital surplus	24	2,484,398	2,494,504
Accumulated other comprehensive income	24	2,064,371	(88,092)
Retained earnings	24	5,068,032	4,733,320
(Regulatory reserve for credit losses of ₩1,146,038 million and ₩1,227,700 million as of December 31, 2020 and 2019, respectively)			
(Required reversal of regulatory reserve for credit losses of ₩663,153 million and ₩81,662 million as of December 31, 2020 and 2019, respectively)			
(Planned reversal of regulatory reserve for credit losses of ₩663,153 million and ₩81,662 million as of December 31, 2020 and 2019, respectively)			
Total equity		30,382,530	25,802,831
Total liabilities and equity		₩251,852,045	217,835,324

See accompanying notes to the separate financial statements.

Korea Development Bank

Separate Statements of Comprehensive Income

Years ended December 31, 2020 and 2019

(In millions of won, except earnings per share information)	Notes	2020	2019
Interest income	25	₩ 4,441,554	5,101,244
Interest expense	25	(3,161,981)	(4,038,922)
Net interest income	48	1,279,573	1,062,322
Net fees and commission income	26	333,104	378,200
Dividend income	27	670,595	678,092
Net gain on securities measured at FVTPL	28	54,757	175,168
Net gain (loss) on financial liabilities measured at FVTPL	29	29,185	(7,466)
Net gain on securities measured at FVOCI	30	80,112	86,679
Net gain (loss) on derivatives	31	397,150	(8,344)
Net foreign currency transaction loss	32	(172,368)	(23,744)
Other operating income (expense), net	33	227,047	(341,699)
Non-interest income, net		1,619,582	936,886
Provision for credit losses	34	1,215,306	83,641
General and administrative expenses	35,48	789,337	746,930
Operating income	48	894,512	1,168,637
Impairment loss on investments in subsidiaries and associates		(239,492)	(542,890)
Other non-operating income	36	12,475	11,184
Other non-operating expense	36	(46,635)	(34,876)
Non-operating expense, net		(273,652)	(566,582)
Profit before income taxes		620,860	602,055
Income tax expense	37	133,330	156,327
Profit for the year	24	487,530	445,728
(Profit for the year adjusted for regulatory reserve for credit losses: ₩1,150,683 million and ₩527,390 million for the years ended December 31, 2020 and 2019, respectively)			
Other comprehensive income for the year, net of tax Items that are or may be reclassified subsequently to profit or loss:	24		
Net gain (loss) on securities measured at FVOCI		21,056	(65,843)
Exchange differences on translation of foreign operations		(53,754)	25,859
Valuation gain on cash flow hedge		326	1,578
Net gain on hedges of net investments in foreign operations		31,492	4,015
		(880)	(34,391)
Items that will not be reclassified to profit or loss:			
Net gain (loss) on securities measured at FVOCI		2,117,388	(1,290)
Fair value changes on financial liabilities designated at fair value due to credit risk		(1,188)	(7,760)
Remeasurements of defined benefit liabilities		(3,697)	7,855
		2,112,503	(1,195)
		2,111,623	(35,586)
Total comprehensive income for the year		₩ 2,599,153	410,142
Earnings per share			
Basic and diluted earnings per share (in won)	38	₩ 124	120

See accompanying notes to the separate financial statements.

Korea Development Bank

Separate Statements of Changes in Equity

Years ended December 31, 2020 and 2019

(In millions of won)	Issued capital	Capital surplus	Accumulated other comprehensive income	Retained earnings	Total equity
Balance at January 1, 2019	₩18,108,099	2,497,177	(32,698)	4,412,649	24,985,227
Profit for the year	—	—	—	445,728	445,728
Net gain on securities measured at FVOCI	—	—	(86,941)	19,808	(67,133)
Exchange differences on translation of foreign operations	—	—	25,859	—	25,859
Valuation gain on cash flow hedge	—	—	1,578	—	1,578
Net gain on hedges of net investments in foreign operations	—	—	4,015	—	4,015
Fair value changes on financial liabilities designated at fair value due to credit risk	—	—	(7,760)	—	(7,760)
Remeasurements of defined benefit liabilities	—	—	7,855	—	7,855
Total comprehensive income for the year	—	—	(55,394)	465,536	410,142
Dividends	—	—	—	(144,865)	(144,865)
Paid in capital increase	555,000	(2,673)	—	—	552,327
Transaction with owners	555,000	(2,673)	—	(144,865)	407,462
Balance at December 31, 2019	₩18,663,099	2,494,504	(88,092)	4,733,320	25,802,831
Balance at January 1, 2020	₩18,663,099	2,494,504	(88,092)	4,733,320	25,802,831
Profit for the year	—	—	—	487,530	487,530
Net gain on securities measured at FVOCI	—	—	2,179,284	(40,840)	2,138,444
Exchange differences on translation of foreign operations	—	—	(53,754)	—	(53,754)
Valuation gain on cash flow hedge	—	—	326	—	326
Net gain on hedges of net investments in foreign operations	—	—	31,492	—	31,492
Fair value changes on financial liabilities designated at fair value due to credit risk	—	—	(1,188)	—	(1,188)
Remeasurements of defined benefit liabilities	—	—	(3,697)	—	(3,697)
Total comprehensive income for the year	—	—	2,152,463	446,690	2,599,153
Dividends	—	—	—	(111,978)	(111,978)
Paid in capital increase	2,102,630	(10,106)	—	—	2,092,524
Transaction with owners	2,102,630	(10,106)	—	(111,978)	1,980,546
Balance at December 31, 2020	₩20,765,729	2,484,398	2,064,371	5,068,032	30,382,530

See accompanying notes to the separate financial statements.

Korea Development Bank

Separate Statements of Cash Flows

Years ended December 31, 2020 and 2019

(In millions of won)	Notes	2020	2019
Cash flows from operating activities			
Profit for the year		₩ 487,530	445,728
Adjustments for:			
Income tax expense	37	133,330	156,327
Interest income	25	(4,441,554)	(5,101,244)
Interest expense	25	3,161,981	4,038,922
Dividend income	27	(670,595)	(678,092)
Loss (gain) on valuation of securities measured at FVTPL	28	(12,973)	48,438
Gain on disposal of securities measured at FVTPL		(19,987)	(166,941)
Loss (gain) on valuation of financial liabilities measured at FVTPL	29	(29,185)	7,466
Gain on disposal of securities measured at FVOCI	30	(80,112)	(86,679)
Impairment loss on securities measured at amortized cost		7	2
Gain on valuation of loans measured at FVTPL	33	(649,267)	(42,921)
Gain on valuation of derivatives		(867,763)	(533,539)
Net loss on fair value hedged items	31	39,559	659,546
Loss on foreign exchange translations	32	159,598	26,965
Gain on disposal of investments in subsidiaries and associates	33	(13,220)	(2,806)
Impairment loss on investments in subsidiaries and associates		239,492	542,890
Provision for loan loss allowance	34	1,177,027	59,805
Increase (reversal) of provision for other assets	34	19,722	(22,915)
Reversal of provision for payment guarantees	22	(75,930)	(140,830)
Increase of provision for unused commitments	22	52,881	263,930
Increase (reversal) of financial guarantee provision	22	41,606	(76,349)
Increase of provision for possible losses from lawsuits	22	441	—
Increase (reversal) of provision for restoration	22	(839)	1,154
Increase of other provisions	22	8,475	31,250
Defined benefit costs	21	38,483	41,007
Depreciation of property and equipment	35	69,403	69,628
Impairment loss on assets held for sale	36	25,926	5,914
Gain on disposal of property and equipment	36	(1,049)	(1,591)
Depreciation of investment property	36	1,381	1,446
Amortization of intangible assets	35	53,977	27,935
Loss (gain) on redemption of debentures		9	(11)
		(1,639,176)	(871,293)
Changes in operating assets and liabilities:			
Due from banks		(2,257,845)	1,225,021
Securities measured at FVTPL		925,821	391,410
Loans measured at FVTPL		(180,867)	217,425
Loans measured at amortized cost		(17,695,562)	(8,039,681)
Derivative financial instruments		148,700	(76,607)
Other assets		(29,447)	(461,439)
Financial liabilities measured at FVTPL		76,378	—
Deposits		11,234,111	2,181,026
Defined benefit liabilities		(46,178)	(39,183)
Other liabilities		(359,241)	2,286,962
		(8,184,130)	(2,315,066)

(Continued)

Korea Development Bank

Separate Statements of Cash Flows, Continued

Years ended December 31, 2020 and 2019

(In millions of won)	Notes	2020	2019
Income taxes paid		(286,306)	(186,610)
Interest received		4,572,014	5,136,893
Interest paid		(2,935,043)	(4,309,752)
Dividends received		671,102	684,214
Net cash used in operating activities		₩ (7,314,009)	(1,415,886)
Cash flows from investing activities			
Net decrease (increase) of securities measured at FVTPL		₩ (1,389,326)	197,029
Disposal of securities measured at FVOCI		50,645,599	22,804,618
Acquisition of securities measured at FVOCI	6	(57,798,921)	(24,034,431)
Redemption of securities measured at amortized cost	7	1,370,003	745,101
Acquisition of securities measured at amortized cost	7	(657,701)	(552,563)
Disposal of property and equipment		7,268	4,896
Acquisition of property and equipment	12	(43,114)	(121,594)
Disposal of intangible assets	14	764	460
Acquisition of intangible assets	14	(11,947)	(85,401)
Disposal of investments in subsidiaries and associates		630,112	1,559,944
Acquisition of investments in subsidiaries and associates		(2,298,120)	(2,385,510)
Net cash used in investing activities		(9,545,383)	(1,867,451)
Cash flows from financing activities			
Increase of financial liabilities measured at FVTPL		170,000	282,834
Decrease of financial liabilities measured at FVTPL		(989,416)	—
Proceeds from borrowings		41,461,011	32,064,820
Repayment of borrowings		(42,701,208)	(31,758,031)
Proceeds from issuance of debentures		116,103,507	99,401,077
Repayment of debentures		(98,467,465)	(98,922,905)
Decrease in lease liabilities		(25,329)	(23,737)
Dividends		(111,978)	(144,865)
Paid in capital increase		2,092,524	552,327
Net cash provided by financing activities		17,531,646	1,451,520
Effects from changes in foreign currency exchange rate for cash and cash equivalents held		(195,885)	235,307
Net increase (decrease) in cash and cash equivalents		476,369	(1,596,510)
Cash and cash equivalents at beginning of the year		5,252,825	6,849,335
Cash and cash equivalents at end of the year	43	₩ 5,729,194	5,252,825

See accompanying notes to the separate financial statements.

Korea Development Bank

Notes to the Separate Financial Statements

December 31, 2020 and 2019

(In millions of won)

1. Reporting Entity

Korea Development Bank (the "Bank") was established on April 1, 1954, in accordance with *The Korea Development Bank Act* to finance and manage major industrial projects.

The Bank is engaged in the banking industry under *The Korea Development Bank Act* and other applicable statutes, and in the fiduciary in accordance with *the Financial Investment Services and Capital Markets Act.*

Korea Finance Corporation (KoFC), the former ultimate parent company, and KDB Financial Group Inc. (KDBFG), the former immediate parent company, were established by spin-offs of divisions of the Bank as of October 28, 2009. KoFC and KDBFG were merged into the Bank, effective as of December 31, 2014. Issued capital is ₩20,765,729 million with 4,153,145,768 shares of issued and outstanding as of December 31, 2020 and 100% of the Bank's shares are owned by the government of the Republic of Korea.

The Bank's head office is located in 14, Eunhaeng-ro (Yeouido-dong), Yeongdeungpo-gu, Seoul and its service network as of December 31, 2020 is as follows:

	Domestic		Overseas			
	Head Office	Branches	Branches	Subsidiaries	Representative offices	Total
KDB	1	69	9	6	9	94

2. Basis of Preparation

(1) Application of accounting standards

These separate financial statements have been prepared in accordance with the Korean International Financial Reporting Standards ("K-IFRS") enacted by the *Act on External Audit of Stock Companies.*

(2) Changes and disclosures of accounting policies

(i) New and amended standards adopted

The Bank newly applied the following amended and enacted standards for the annual period beginning on January 1, 2020. The nature and the impact of each new standard or amendment are described below:

Amendments to K- IFRS 1001 'Presentation of Financial Statements' and K-IFRS 1008 'Accounting Policies, Changes in Accounting Estimates and Errors'—Definition of Materiality

The amendments clarify the explanation of the definition of material and amended K-IFRS 1001 and K-IFRS 1008 in accordance with the clarified definitions. Materiality is assessed by reference to omission or misstatement of material information as well as effects of immaterial information, and to the nature of the users when determining the information to be disclosed by the Bank. The amendment does not have a significant impact on the separate financial statements.

2. Basis of Preparation, Continued

Amendments to K- IFRS 1103 'Business Combination'—Definition of a Business

To consider the integration of the required activities and assets as a business, the amended definition of a business requires an acquisition to include an input and a substantive process that together significantly contribute to the ability to create outputs and excludes economic benefits from the lower costs. An entity can apply a concentration test, an optional test, where substantially all of the fair value of gross assets acquired is concentrated in a single asset or a group of similar assets, the assets required would not represent a business. The amendment does not have a significant impact on the separate financial statements.

Amendments to K-IFRS 1109 'Financial Instruments', K-IFRS 1039 'Financial Instruments: Recognition and Measurement' and K-IFRS 1107 'Financial instruments: Disclosure'—Interest Rate Benchmark Reform

The amendments allow to apply the exceptions when forward-looking analysis is performed in relation the application of hedge accounting while uncertainties arising from interest rate benchmark reform exist. The exceptions require the Bank assumes that the interest rate benchmark on which the hedged items and the hedging instruments are based on is not altered as a result of interest rate benchmark reform, when determining whether the expected cash flows are highly probable, whether an economic relationship between the hedged item and the hedging instrument exists, and when assessing the hedging relationship is highly effective. The new disclosure requirements of the amendments are presented in Note 10.(9).

Amendments to K-IFRS 1116 'Leases'—Practical expedient for COVID-19-Related Rent Exemption, Concessions, Suspension

The practical expedient permits a lessee to elect not to assess whether a COVID19-related rent concession is a lease modification. A lessee that makes this election shall account for any change in lease payments resulting from the COVID-19-related rent concession the same way it would account for the change applying this standard if the change were not a lease modification. The amendments should be applied for annual periods beginning on or after June 1, 2020, and earlier application is permitted. The amendment does not have a significant impact on the separate financial statements.

(ii) New standards and interpretations issued but not effective

The following new standards, interpretations and amendments to existing standards have been issued but not effective for annual periods beginning after January 1, 2020, and the Bank has not early adopted them. The nature and the impact of each new standard, amendment and enactments are described below:

Amendments to K-IFRS 1103 'Business Combination'—Reference to the Conceptual Framework

The amendments update a reference of definition of assets and liabilities to qualify for recognition in revised Conceptual Framework for Financial Reporting. However, the amendments add an exception for the recognition of liabilities and contingent liabilities within the scope of K-IFRS 1037 'Provisions, Contingent Liabilities and Contingent Assets', and K-IFRS 2121 'Levies'. The amendments also confirm that contingent assets should not be recognized at the acquisition date. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

2. Basis of Preparation, Continued

Amendments to K-IFRS 1109 'Financial Instruments', K-IFRS 1039 'Financial Instruments: Recognition and Measurement', K-IFRS 1107 'Financial Instruments: Disclosure', K-IFRS 1104 'Insurance Contracts' and K-IFRS 1116 'Lease'—Interest Rate Benchmark Reform

In relation to interest rate benchmark reform, the amendments provide a practical expedient allowing entities to change the effective interest rate instead of changing the carrying amount and apply hedge accounting without discontinuance although the interest rate benchmark is replaced in hedging relationship. The amendments should be applied for annual periods beginning on or after January 1, 2021, and earlier application is permitted. The Bank is currently in progress of analyzing the potential impact on the financial statements resulting from the application of these amendments.

Amendments to K-IFRS 1016 'Property, Plant and Equipment'—Proceeds before intended use

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize and disclose the proceeds from selling such items, and the costs of producing those items, as profit or loss. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

Amendments to K-IFRS 'Provisions, Contingent Liabilities and Contingent Assets'—Onerous Contracts: Cost of Fulfilling a Contract

The amendments clarify that the direct costs of fulfilling a contract include both the incremental costs of fulfilling the contract and an allocation of other costs directly related to fulfilling contracts when assessing whether the contract is onerous. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

Amendments to K-IFRS 1001 'Presentation of Financial Statements'—Classification of Liabilities as Current or Non-current

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the management's expectations thereof. Also, the settlement of liability includes the transfer of the entity's own equity instruments; however, it would be excluded if an option to settle the liability by the transfer of the entity's own equity instruments is recognized separately from the liability as an equity component of a compound financial instrument. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

Annual improvements to K-IFRS 2018-2020

Annual improvements of K-IFRS 2018-2020 Cycle should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Bank does not expect that these amendments have a significant impact on the separate financial statements.

2. Basis of Preparation, Continued

- K-IFRS 1109 'Financial Instruments'—Fees related to the 10% test for derecognition of financial liabilities The amendment clarifies that in applying the '10 per cent' test to assess whether to derecognise 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.
- K-IFRS 1101 'First time Adoption of Korean International Financial Reporting Standards'—Subsidiaries that are first-time adopters
- Korean IFRS No. 1116 Leases—Lease incentives
- Korean IFRS No. 1041 Agriculture—Measuring fair value

(3) Basis of measurement

The financial statements have been prepared on the historical cost basis except for the following material items in the statement of financial position:

- Derivative financial instruments measured at fair value
- Financial instruments measured at fair value through profit or loss
- Financial instruments measured at fair value through other comprehensive income
- Fair value hedged financial instruments with changes in fair value, due to hedged risks, recognized in profit or loss
- Liabilities for defined benefit plans, which are recognized as net of the total present value of defined benefit obligations less the fair value of plan assets.

(4) Functional and presentation currency

These financial statements are presented in Korean won ("₩"), which is the Bank's functional currency and the currency of the primary economic environment in which the Bank operates.

(5) Use of estimates and judgments

The preparation of the financial statements in conformity with K-IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Management's estimates of outcomes may differ from actual outcomes if management's estimates and assumptions based on management's best judgment at the reporting date are different from the actual environment.

Estimates and assumptions are continually evaluated and any change in an accounting estimate is recognized prospectively by including it in profit or loss in the period of the change, if the change affects that period only.

2. Basis of Preparation, Continued

The following are the key assumptions concerning the future and other key sources of estimation uncertainty at the end of the reporting period that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year:

(i) Fair value of financial instruments

Financial instruments measured at fair value through profit or loss and other comprehensive income, and derivative instruments are recognized and measured at fair value. If the market for a financial instrument is not active, fair value is determined either by using a valuation technique or independent third-party valuation service. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, referencing to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models.

Financial instruments, which are not actively traded in the market and those with less transparent market prices, will have less objective fair values and require broad judgment on liquidity, concentration, uncertainty in market factors and assumptions in price determination and other risks.

Diverse valuation techniques are used to determine the fair value of financial instruments, from generally accepted market valuation models to internally developed valuation models that incorporate various types of assumptions and variables.

(ii) Credit losses allowance

The Bank tests impairment and recognizes loss allowances on financial assets classified at amortized cost, debt instruments measured at fair value through other comprehensive income and recognizes provisions for payment guarantee, financial guarantee and unused commitments. Accuracy of allowances and provisions for credit losses is dependent upon estimation of expected cash flows of the borrower for individually assessed allowances of loans, and upon assumptions and methodology used for collectively assessed allowances for groups of loans, guarantees and unused loan commitments.

The pandemic of COVID-19 in 2020 has a negative impact on the global economy despite of the Korean government's financial and economic stabilization packages. It may have a negative impact on the financial position and financial performance of the Bank due to the increase of the expected credit losses on specific portfolios and the potential losses on financial assets. The detail of credit risk exposures by industry affected by the pandemic of COVID-19 as of December 31, 2020 is disclosed in Note 49. (2) and the exposures by industries could be changed according to economic fluctuations.

Taking these circumstances into account comprehensively, the Bank recalculated the forward-looking information used to estimate the expected credit loss in accordance with K-IFRS 1109 'Financial Instruments' as of December 31, 2020. During the twelve-month period since the end of the previous year, there have been changes in the forward-looking information that affects expected credit losses, and it is predicted that major economic factors such as the 2020 unemployment rate and economic growth rate will deteriorate due to the impact of COVID-19. To reflect these changes, the Bank recalculated the forward-looking information by means of increasing the probability of recession used in generating future economic scenarios and will continue to monitor the forward-looking information on a quarterly basis.

2. Basis of Preparation, Continued

(iii) Deferred taxes

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date. Deferred income tax assets are recognised to the extent that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Actual income taxes in the future may not be identical to the recognised deferred tax assets and liabilities.

(iv) Defined benefit liabilities

The Bank operates a defined benefit plan. Defined benefit liability is calculated by annual actuarial valuations as of the reporting date. To perform the actuarial valuations, assumptions for discount rates, future salary increases and others are required to be estimated. Defined benefit plans contain significant uncertainties in estimations due to its long-term nature.

(6) Approval date for the separate financial statements

The separate financial statements were authorized for issue by the Board of Directors on March 25, 2021, which will be submitted for approval to the shareholders' meeting to be held on March 30, 2021.

3. Significant Accounting Policies

The significant accounting policies applied by the Bank in preparation of its separate financial statements are included below. The accounting policies set out below have been applied consistently to all periods presented in these separate financial statements.

(1) Investments in subsidiaries and associates

The accompanying financial statements are separate financial statements in accordance with K-IFRS 1027 *'Separate Financial Statements'* and investments in subsidiaries and associates are accounted for at cost, not by performance and net asset reported by the investee. Dividends received from subsidiaries and associates are recognised as income as of the time the right to receive the dividends is established.

(2) Business combination of entities under common control

The assets and liabilities acquired under business combinations under common control are recognised at the carrying amounts recognised previously in the consolidated financial statements of the ultimate parent. The difference between consideration transferred and carrying amounts of net assets acquired is recognised as part of share premium.

(3) Operating segments

The Bank makes decisions regarding allocation of resources to segments and categorizes segments, based on internal reports reviewed periodically by the chief operating decision maker, to assess performance. Information on segments reported to the chief operating decision maker includes items directly attributable to segments as well as those that can be allocated on a reasonable basis. Unallocated items mainly comprise corporate assets (such as the Bank Headquarters), head office expenses, and income tax assets and liabilities. The Bank recognises the CEO as the chief operating decision maker.

3. Significant Accounting Policies, Continued

(4) Foreign exchange

(i) Foreign currency transactions

Transactions in foreign currencies are translated to the functional currency of the Bank, at exchange rates of the dates of transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to the functional currency at the exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between amortized cost in the functional currency at the beginning of the period, adjusted for effective interest and payments during the period, and the amortized cost in foreign currency translated at the exchange rate at the end of the reporting period. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are translated to the functional currency at the exchange rate at the date that the fair value was determined.

Foreign currency differences arising on transactions and translations of monetary items are recognised in profit or loss, except for differences arising on the translation of a financial instruments designated as hedges of the net investment in foreign operations, or cash flow hedge, which are recognised in other comprehensive income.

When a gain or loss on a non-monetary item is recognised in other comprehensive income, any exchange component of that gain or loss is recognised in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognised in profit or loss, any exchange component of that gain or loss shall be recognised in profit or loss.

(ii) Foreign operations

If the presentation currency of the Bank is different from a foreign operation's functional currency, the financial statements of the foreign operation are translated into the presentation currency using the following methods:

Unless the functional currency of foreign operations is in a state of hyperinflation, assets and liabilities of foreign operations are translated at the closing exchange rate at the end of the reporting period. Revenues and expenses on the statement of comprehensive income are translated at the exchange rates of the date of transaction. Foreign currency differences that arise from translation are recognized as other comprehensive income, and the disposal of a foreign operation is re-categorized as profit or loss as of the moment of the disposal profit or loss is recognized.

Any goodwill arising on the acquisition of a foreign operation, and any adjustments in fair value to the carrying amounts of assets and liabilities due to such acquisition, are treated as assets and liabilities of the foreign operation. Therefore, such are expressed in the functional currency of the foreign operations and, alongside other assets and liabilities of the foreign operation, translated at the closing exchange rate.

In the case of the disposal of a foreign operation, cumulative amounts of exchange difference regarding the foreign operation, recognized separately from other comprehensive income, are re-categorized from assets to profit or loss as of the disposal profit or loss is recognized.

3. Significant Accounting Policies, Continued

(iii) Foreign exchange of net investment in foreign operations

Monetary items receivable from or payable to a foreign operation, with none or little possibility of being settled in the foreseeable future, are considered a part of the net investment in the foreign operation. Therefore, the exchange difference is recognised as comprehensive income or loss in the financial statement and re-categorized to profit or loss as of the disposal of the related net investment.

(5) Recognition and measurement of financial instruments

(i) Initial recognition

The Bank recognizes a financial asset or a financial liability in its separate statement of financial position when the Bank becomes a party to the contractual provisions of the instrument. A regular way purchase or sale of financial assets is recognized and derecognized using trade date accounting.

The Bank classifies financial assets as financial assets at fair value through profit or loss, financial assets at fair value through other comprehensive income, or financial assets at amortized cost on the basis of the Bank's business model for managing the financial assets and the contractual cash flow characteristics of the financial assets. The Bank classifies financial liabilities as financial liabilities at fair value through profit or loss, or financial liabilities at amortized cost.

At initial recognition, a financial asset or financial liability is measured at its fair value plus or minus, in the case of a financial asset or financial liability not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

(ii) Subsequent measurement

After initial recognition, financial instruments are measured at amortized cost or fair value based on classification at initial recognition.

Amortized cost

The amortized cost is the amount at which the financial asset or financial liability is measured at initial recognition minus the principal repayments, plus or minus the cumulative amortization using the effective interest method of any difference between that initial amount and the maturity amount and, for financial assets, adjusted for any loss allowance.

Fair value

Fair values, which the Bank primarily uses for the measurement of financial instruments, are the published price quotations based on market prices or dealer price quotations of financial instruments traded in an active market where available. These are the best evidence of fair value. A financial instrument is regarded as quoted in an active market if quoted prices are readily and regularly available from an exchange, dealer, broker, an entity in the same industry, pricing service or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis.

3. Significant Accounting Policies, Continued

If the market for a financial instrument is not active, fair value is determined either by using a valuation technique or independent third-party valuation service. Valuation techniques include using recent arm's length market transactions between knowledgeable, willing parties, if available, referencing to the current fair value of another instrument that is substantially the same, discounted cash flow analysis and option pricing models.

The Bank uses valuation models that are commonly used by market participants and customized for the Bank to determine fair values of common over-the-counter (OTC) derivatives such as options, interest rate swaps and currency swaps which are based on the inputs observable in markets. For more complex instruments, the Bank uses internally developed models, which are usually based on valuation methods and techniques generally used within the industry, or a value measured by an independent external valuation institution as the fair values if all or some of the inputs to the valuation models are not market observable and therefore it is necessary to estimate fair value based on certain assumptions.

If the valuation technique does not reflect all factors which market participants would consider in setting a price, the fair value is adjusted to reflect those factors. Those factors include counterparty credit risk, bid-ask spread, liquidity risk and others.

The chosen valuation technique makes maximum use of market inputs and relies as little as possible on entity-specific inputs. It incorporates all factors that market participants would consider in setting a price and is consistent with economic methodologies applied for pricing financial instruments. Periodically, the Bank calibrates the valuation technique and tests its validity using prices of observable current market transactions of the same instrument or based on other relevant observable market data.

(iii) Derecognition

Derecognition is the removal of a previously recognized financial asset or financial liability from the statement of financial position. The Bank derecognizes a financial asset or a financial liability when, and only when:

Derecognition of financial assets

Financial assets are derecognized when the contractual rights to the cash flows from the financial assets expire or the financial assets have been transferred and substantially all the risks and rewards of ownership of the financial assets are also transferred, or all the risks and rewards of ownership of the financial assets are neither substantially transferred nor retained and the Bank has not retained control. If the Bank neither transfers nor disposes of substantially all the risks and rewards of ownership of the financial assets, the Bank continues to recognize the financial asset to the extent of its continuing involvement in the financial asset.

If the Bank transfers the contractual rights to receive the cash flows of the financial asset, but retains substantially all the risks and rewards of ownership of the financial asset, the Bank continues to recognize the transferred asset in its entirety and recognize a financial liability for the consideration received.

Derecognition of financial liabilities

Financial liabilities are derecognized from the statement of financial position when the obligation specified in the contract is discharged, cancelled or expires.

3. Significant Accounting Policies, Continued

(iv) Offsetting

Financial assets and liabilities are offset and the net amount reported in the separate statements of financial position where there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the assets and settle the liability simultaneously.

(6) Cash and cash equivalents

Cash and cash equivalents comprise balances with original maturities of three months or less from the date of acquisition that are subject to an insignificant risk of changes in their fair value, including cash on hand, deposits held at call with banks and other highly liquid short-term investments with original maturities of three months or less.

(7) Non-derivative financial assets

(i) Financial assets at fair value through profit or loss

Any non-derivative financial asset classified as held for trading or not classified as financial assets at fair value through other comprehensive income or financial assets measured at amortized cost is categorized under financial assets at fair value through profit or loss.

The Bank may designate certain financial assets upon initial recognition as at fair value through profit or loss when the designation eliminates or significantly reduces a measurement or recognition inconsistency (sometimes referred to as 'an accounting mismatch') that would otherwise arise from measuring assets or liabilities or recognizing the gains and losses on them on different bases.

After initial recognition, a financial asset at fair value through profit or loss is measured at fair value and gains or losses arising from a change in the fair value are recognized in profit or loss. Interest income and dividend income from financial assets at fair value through profit or loss are also recognized in profit or loss.

(ii) Financial assets at fair value through other comprehensive income

The Bank classifies financial assets as financial assets at fair value through other comprehensive income if they meet the following conditions: 1) debt instruments that are a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and consistent with representing solely payments of principal and interest on the principal amount outstanding or 2) equity instruments, not held for trading with the objective of generating a profit from short-term fluctuations in price or dealer's margin, designated as financial assets at fair value through other comprehensive income.

After initial recognition, a financial asset at fair value through other comprehensive income is measured at fair value. Gain and loss from changes in fair value, other than dividend income and interest income amortized using effective interest method and exchange differences arising on monetary items which are recognized directly in profit or loss, are recognized as other comprehensive income in equity.

At disposal of financial assets at fair value through other comprehensive income, cumulative gain or loss is recognized as profit or loss for the reporting period. However, cumulative gain or loss of equity instrument designated as fair value through other comprehensive income are not recycled to profit or loss at disposal.

3. Significant Accounting Policies, Continued

Financial assets at fair value through other comprehensive income denominated in foreign currencies are translated at the closing rate. Exchange differences resulting from changes in amortized cost are recognized in profit or loss, and other changes are recognized as equity.

(iii) Financial assets measured at amortized cost

A financial asset, which are held within the business model whose objective is to hold assets in order to collect contractual cash flows and consistent with representing solely payments of principal and interest on the principal amount outstanding, are classified as a financial asset at amortized cost. Financial assets at amortized cost are subsequently measured at amortized cost using the effective interest method after initial recognition and interest income is recognized using the effective interest method.

(8) Expected credit loss of financial assets

The Bank measures expected credit loss and recognizes loss allowance at the end of the reporting period for financial assets measured at amortized cost and fair value through other comprehensive income with the exception of financial asset measured at fair value through profit or loss.

The expected credit loss ("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 of effort.

The Bank uses the following three measurement techniques in accordance with K-IFRS:

- General approach: for financial assets and off-balance-sheet unused credit line that are not applied below two approaches
- Simplified approach: for receivables, contract assets and lease receivables
- Credit-impaired approach: for purchased or originated credit-impaired financial assets

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, an entity shall measure the loss allowance for that financial instrument at an amount equal to 12-month expected credit losses. If the credit risk on that financial instrument has increased significantly since initial recognition, an entity shall measure the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses at each reporting date.

The Bank applies the simplified approach to 1) trade receivables and contract assets that do not have a significant financing component or 2) trade receivables, contract assets and lease receivables upon determining the Bank's accounting policies as the application of the simplified approach. The approach requires expected lifetime losses to be recognized from initial recognition of the financial assets. Under credit-impaired approach, the Bank shall only recognize the cumulative changes in lifetime expected credit losses since initial recognition as a loss allowance for purchased or originated credit-impaired financial assets.

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

3. Significant Accounting Policies, Continued

- Other changes in the rates or terms of an existing financial instrument that would be significantly different if the instrument was newly originated or issued at the reporting date
- 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 behavioural scoring used to assess credit risk internally
- An actual or expected significant change in the operating results of the borrower
- Past due information

(i) Forward-looking information

The Bank uses forward-looking information, when it determines whether the credit risk has increased significantly since initial recognition and measures expected credit losses.

The Bank assumes the risk component has a certain correlation with the business cycle, and calculates the expected credit loss by reflecting the forward-looking information with macroeconomic variables on the measurement inputs.

Forward looking information used in calculation of expected credit loss is derived after comprehensive consideration of a variety of factors including scenario in management planning, worst-case scenario used for stress testing, third party forecast, and others.

(ii) Measuring expected credit losses on financial assets at amortized cost

The amount of the loss on financial assets at amortized cost is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the financial asset's original effective interest rate. The Bank estimates expected future cash flows for financial assets that are individually significant (individual assessment of impairment).

For financial assets that are not individually significant, the Bank collectively estimates expected credit loss by grouping loans with homogeneous credit risk profile (collective assessment of impairment).

Individual assessment of impairment

Individual assessment of impairment losses is calculated using management's best estimate on present value of expected future cashflows. The Bank uses all the available information including operating cash flow of the borrower and net realizable value of any collateral held.

Collective assessment of impairment

Collective assessment of loss allowance involves historical loss experience along with incorporation of forward-looking information. Such process incorporates factors such as type of collateral, product and borrowers, credit rating, size of portfolio and recovery period and applies probability of default on a group of assets and loss given default by type of recovery method. Also, the expected credit loss model involves certain assumption to determine input based on loss experience and forward-looking information. These models and assumptions are periodically reviewed to reduce gap between loss estimate and actual loss experience.

3. Significant Accounting Policies, Continued

The expected credit loss for financial assets measured at amortized cost is recognized as the loss allowance, and when the financial asset is determined to be irrecoverable, the carrying amount and loss allowance are decreased. If financial assets previously written off are recovered, the loss allowance is increased and the difference is recognized in the current profit or loss.

(iii) Measuring expected credit losses on financial assets at fair value through other comprehensive income

Measuring method of expected credit losses on financial assets at fair value through other comprehensive income is equal to the method of financial assets at amortized cost, except for changes in loss allowances that are recognized as other comprehensive income. Amounts recognized in other comprehensive income for sale or repayment of financial assets at fair value through other comprehensive income are reclassified to profit or loss.

(9) Derivative financial instruments including hedge accounting

Derivative financial instruments are initially recognised at fair value at the inception of the contract and re-estimated at fair value subsequently. The recognition of profit or loss due to changes in fair value of derivative instruments is as described below:

(i) Hedge accounting

Derivative financial instruments are accounted differently depending on whether hedge accounting is applied, and therefore, are classified into trading purpose derivatives and hedging purpose derivatives.

Upon the transaction of hedging purpose derivatives, two different types of hedge accounting are applied; a fair value hedge, and a cash flow hedge. A fair value hedge is a hedge of the exposure to changes in fair value of a recognised asset or liability or an unrecognised firm commitment, or an identified portion of such an asset, liability or firm commitment, that is attributable to a particular risk and could affect profit or loss. A cash flow hedge is a hedge of the exposure to variability in cash flows that (i) is attributable to a particular risk associated with a recognised asset or liability (such as all or some future interest payments on variable rate debt) or a highly probable forecast transaction and (ii) could affect profit or loss.

At the inception of the hedge relationship, the Bank formally documents the relationship between the hedged item and the hedging instrument, including the nature of the risk, the objective and strategy for undertaking the hedge, and the method that will be used to assess the effectiveness of the hedging relationship.

Fair value hedge

For designated and qualifying fair value hedges, the change in the fair value of a hedging derivative is recognised in profit or loss in the statement of comprehensive income. Meanwhile, the change in the fair value of the hedged item, attributable to the risk hedged, is recorded as part of the carrying value of the hedged item and is also recognised in profit or loss in the statement of comprehensive income. When the hedge no longer meets the criteria for hedge accounting, the hedge relationship is terminated. For hedged item recorded at amortized cost, the difference between the carrying value of the hedged item on termination and the face value is amortized over the remaining term of the original hedge using the EIR.

3. Significant Accounting Policies, Continued

Cash flow hedge

For designated and qualifying cash flow hedges, the effective portion of gain or loss on the hedging instruments is initially recognised directly in equity. The ineffective portion of the gain or loss on the hedging instrument is recognised immediately in the statement of comprehensive income. When the hedged cash flow affects the profit or loss in statement of comprehensive income, the gain or loss on the hedging instrument is recorded in the corresponding income or expense line in profit or loss in the statement of comprehensive income. When a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the hedged forecasted transaction is ultimately recognised in the statement of comprehensive income. When a forecasted transaction is no longer expected to occur, the cumulative gain and loss that was reported in equity is immediately transferred to profit or loss in the statement of comprehensive income.

Hedges of net investments in foreign operations

The Bank designates non-derivative financial instruments as hedging instruments for foreign currency risk arising from net investments in foreign operations and recognises the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge in other comprehensive income. The cumulative amounts recognised in other comprehensive income relating to both the foreign exchange differences arising on translation of the results and financial position of the foreign operation and the gain or loss on the hedging instrument that is determined to be an effective hedge of the net investment are reclassed from equity to profit or loss as a reclassification adjustment when the Bank disposes of the foreign operation.

(ii) Trading purpose derivatives

For trading purpose derivatives transaction, changes in the fair value of derivatives are recognised in net income.

(10) Day one profit or loss recognition

For financial instruments classified as level 3 on the fair value level hierarchy measured using assess variables not observable in the market, the difference between the fair value at initial recognition and the transaction price, which is equivalent to Day one profit or loss, is amortized by using the straight-line method over time.

(11) Property and equipment

The Bank's property and equipment are recognised at the carrying amount at historical costs less accumulated depreciation and accumulated impairment in value. Historical costs include the expenditures directly related to the acquisition of assets.

Subsequent costs are recognised in the carrying amount of assets or, if appropriate, as separate assets if the probabilities future economic benefits associated with the assets will flow into the Bank and the costs can be measured reliably; the carrying amount of the replaced part is derecognised. Furthermore, any other repairs or maintenances are charged to profit or loss as incurred.

3. Significant Accounting Policies, Continued

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to the amount of residual value less acquisition cost over the following estimated useful lives:

Type	Useful lives (years)
Buildings	20 ~ 50
Structure	10 ~ 40
Movable property	4

Property and equipment are impaired when the carrying amount exceeds the recoverable amount. The Bank assesses residual value and economic life of its assets at each reporting date and adjusts useful lives when necessary. Any gain or loss arising from the disposal of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is recognised in non-operating income (expense) in the statement of comprehensive income.

(12) Investment property

The Bank classifies property held for rental income or benefits from capital appreciation as investment property. Investment property is measured initially at cost, including transaction costs. Subsequent to initial recognition, the cost model is applied. Subsequent to initial recognition, an item of investment property is carried at its cost less any accumulated depreciation and any accumulated impairment loss.

Investment properties are derecognised 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 recognised in the statement of comprehensive income in the period of de-recognition. Reclassification to other account is made if there is a change in use of corresponding investment property.

Depreciation of investment property is calculated using the straight-line method over its estimated useful lives as follows:

Type	Useful lives (years)
Buildings	20 ~ 50
Structure	10 ~ 40

(13) Intangible assets

An intangible asset is recognised only when its cost can be measured reliably, and the probabilities future economic benefits from the asset will flow into the Bank are high. Separately acquired intangible assets are recognised at the acquisition cost, and subsequently, the cost less accumulated depreciation and accumulated impairment is recognised as the carrying amount.

Intangible assets with finite lives are amortized over the four-year to 30-year period of useful economic lives using the straight-line method. At the end of each reporting period, the Bank reviews intangible assets for any evidence that indicate impairment, and upon the presence of such evidence, the Bank estimates the amount recoverable and recognises the loss accordingly.

3. Significant Accounting Policies, Continued

Intangible assets with indefinite useful lives are not amortized but are tested for impairment annually. Furthermore, the Bank reviews such intangible assets to determine whether it is appropriate to consider these assets to have indefinite useful lives. If in the case the Bank concludes an asset is not qualified to be classified as non-finite, prospective measures are taken to consider such an asset as finite.

(14) Leases

The Bank recognizes a right-of-use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments at the commencement date of the lease. The Bank elected not to apply the requirements to the short-term leases and leases of low value assets.

Right-of-use asset

The right-of-use asset is measured at its cost less subsequent accumulated depreciation and accumulated impairment loss with adjustments reflected arising from remeasurements of the lease liability. The cost of the right-of-use asset comprise the amount of the initial measurement of the lease liability, any initial direct costs incurred by the lessee and any lease payments made at or before the commencement date, less any lease incentive received. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis from the commencement date of the lease.

Lease liabilities

At the commencement date, the lease liability is measured at present value of the lease payments that are not paid at that date. Lease payments include fixed payments (including in-substance fixed payments), less any lease incentives receivable, variable lease payments that depend on an index or a rate, amounts expected to be payable by the lessee under residual value guarantees, the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease. The variable lease payments that do not depend on an index or a rate are recognized as an expense in the period in which the event or condition that triggers those payments occurs.

When measuring the present value, the lease payments are discounted using the interest rate implicit in the lease. If such implicit rate cannot be readily determined, the Bank uses the Bank's incremental borrowing rate. The lease liability is subsequently increased by the amount of interest expenses recognized on the lease liability and reduced by the lease payments made.

Short-term lease and lease of low-value assets

The Bank does not apply the requirements of lessee accounting to short-term leases and leases of low-value assets. The Bank recognizes the lease payments associated with these leases as expenses on a straight-line basis over the lease term.

(15) Impairment of non-financial assets

The Bank tests for any evidence of impairment in assets and reviews whether the impairment has taken place by estimating the recoverable amount, at the end of each reporting period. The recoverable amount is the higher of the fair value less cost and value in use of an asset.

3. Significant Accounting Policies, Continued

Except for impairment losses in respect of goodwill which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceeds the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised for the asset in prior years.

(16) Assets held for sale

Non-current assets, or disposal groups comprising assets and liabilities, that are expected to be recovered primarily through sale rather than through continuing use, are classified as held for sale. To be classified as held for sale, the asset (or disposal group) must be available for immediate sale in its present condition and its sale must be highly probable. The assets or disposal group that are classified as assets held for sale are measured at the lower of their carrying amount and fair value less cost to sell.

The Bank recognizes an impairment loss for any initial or subsequent write-down of an asset (or disposal group) to fair value less costs to sell, and a gain for any subsequent increase in fair value less costs to sell, up to the cumulative impairment loss previously recognized.

Non-current assets that are classified as held for sale or part of a disposal group classified as held for sale are not depreciated (or amortized).

(17) Non-derivative financial liabilities

The Bank classifies non-derivative financial liabilities into financial liabilities at fair value through profit or loss or other financial liabilities, in accordance with the substance of the contractual arrangement and the definitions of financial liability. The Bank recognizes these financial liabilities in the statement of financial position when the Bank becomes a party to the contractual provisions of the financial liability.

(i) Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated at FVTPL upon initial recognition. Financial liabilities and derivatives are classified as financial instruments held for trading if they are acquired for repurchasing soon. Financial liabilities are classified as financial liabilities at FVTPL upon initial recognition, if the profit or loss from the liabilities indicates to be more purpose-appropriate to be recognised as profit or loss. Financial liabilities at FVTPL are designated at fair value in subsequent measurements, and any related un-realized profit or loss is recognised as profit or loss. In addition, for the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability, the Bank present this change in other comprehensive income, and does not recycle this other comprehensive income to profit or loss, subsequently.

(ii) Financial liabilities measured at amortized cost

Financial liabilities measured at amortized cost are recognised at fair value less cost less transaction cost upon initial recognition, and subsequently at amortized costs. The difference between the proceeds (net of transaction cost) and the redemption value is recognised in the statement of comprehensive income over the periods of the liabilities using the effective interest method.

3. Significant Accounting Policies, Continued

Fees paid on the establishment of a loan facility are recognised as transaction costs of the loan, if the probability that some or all the facility will be drawn down is high. If, however, there is not enough evidence to conclude a draw-down of some or all the facility will occur, the fee is capitalized as a prepayment for liquidity services and amortized over the period of the facility to which it relates.

(18) Employee benefits

(i) Short-term employee benefits

Short-term employee benefits are employee benefits that are due to be settled wholly before 12 months after the end of the period in which the employees render the related service. When an employee has rendered service to the Bank during an accounting period, the Bank recognises the undiscounted amount of short-term employee benefits expected to be paid in exchange for that service.

(ii) Retirement benefits: defined contribution plans

A defined contribution plan is a pension plan under which the Bank pays fixed contributions into a separate fund. The Bank is no longer responsible for any foreseeable future liability after a certain amount or percentage of money is set aside for defined contribution plans. If the pension plan allows for early retirement, payments are recognised as employee benefits. If the contribution already paid exceeds the contribution due for service before the end of the reporting period, the Bank recognises that excess as an asset to the extent that the prepayment will lead to a reduction in future payments or a cash refund.

(iii) Retirement benefits: defined benefit plans

The Bank classifies all the pensions as defined benefit plans except defined contribution plans. The Bank's net obligation in respect of defined benefit plans is calculated by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets. The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and have terms to maturity like the terms of the related pension liability.

Remeasurements of the net defined benefit liabilities (assets), which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognised immediately in other comprehensive income.

(19) Provisions

Provisions are recognized when the Bank has a present legal or constructive obligation because 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.

(20) Financial guarantees

Financial guarantee contracts are contracts that require the issuer (the Bank) to make specified payments to reimburse the holder for a loss it incurs because a specified debtor fails to make payments when due, in

3. Significant Accounting Policies, Continued

accordance with the original or changed terms of a debt instrument. Financial guarantees are initially recognized in the financial statements at fair value on the date the guarantee was given. Subsequent to initial recognition, the Bank's liabilities under such guarantees are measured at the higher of:

- The amount determined in accordance with K-IFRS 1109 *'Financial Instruments'* and
- The initial amount recognized, less, when appropriate, cumulative amortization recognized in accordance with K-IFRS 1115 'Revenue from Contracts with Customers'.

(21) Securities under resale or repurchase agreements

Securities purchased under agreements to resell are recorded as other loans and receivables and the related interest from these securities is recorded as interest income; securities sold under agreements to repurchase are recorded as other borrowings, and the related interest from these securities is recorded as interest expense.

(22) Interest income and expense

Interest income and expense are recognized in profit or loss using the effective interest method. The effective interest method measures the amortized costs of financial instruments and allocates the interest income or expense during the related period.

Upon the calculation of the effective interest rate, the Bank estimates future cash flows by taking into consideration all contractual terms of the financial instrument, but not future credit loss. The calculation also reflects any fees or points paid or received, transaction costs and any related premiums or discounts. In the case that the cash flow and expected duration of a financial instrument cannot be estimated reliably, the effective interest rate is calculated by the contractual cash flow during the contract period.

Once an impairment loss has been recognized on a financial asset or a group of similar assets, subsequent interest income is recognized on the interest rate that was used to discount future cash flow for measuring the impairment loss.

(23) Fees and commission income

Fees and commission income and expense are classified as follows according to related regulations:

(i) Fees and commission from financial instruments

Fees and commission income and expense that are integral to the effective interest rate on a financial asset or liability are included in the measurement of the effective interest rate. It includes those related to evaluation of the borrowers' financial status, guarantee, collateral, other agreements and related evaluation as well as business transaction, rewards for activities, such as document preparation and recording and setup fees incurred during issuance of financial liabilities. However, when financial instruments are classified as financial instruments at fair value through profit or loss, fees and commission are recognized as revenue upon initial recognition.

3. Significant Accounting Policies, Continued

(ii) Fees and commission from services

Fees and commission income charged in exchange for services to be performed during a certain period of time such as asset management fees, consignment fees and assurance service fees are recognized as the related services are performed. When a loan commitment is not expected to result in the draw-down of a loan and K-IFRS 1039 *'Financial Instrument: Recognition and Measurement'* is not applied for the commitment, the related loan commitment fees are recognized as revenue proportionally to time over the commitment period.

(iii) Fees and commission from significant transaction

Fees and commission from significant transactions, such as trading stocks and other securities, negotiation and mediation activities for third parties, for instance business transfer and takeover, are recognized when transactions are completed.

(24) Dividend income

Dividend income is recognized upon the establishment of the Bank's right to receive the payment.

(25) Income tax expense

Income tax expense comprises current and deferred income tax. Current income tax and deferred income tax are recognized in profit or loss except to the extent that the tax arises from a transaction or event, which is recognized in other comprehensive income or directly in equity, or a business combination.

The Bank recognizes deferred income tax liabilities for all taxable temporary differences associated with investments in subsidiaries, associates, except to the extent that the Bank can control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. The Bank recognizes deferred income tax assets for all deductible temporary differences arising from investments in associates, to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the reporting period when the assets are realized, or the liabilities settled, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred income tax assets and liabilities reflects the income tax effects that would follow from the manner in which the Bank expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

The carrying amount of a deferred income tax asset is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred income tax asset to be utilized.

Deferred income tax assets and liabilities are off-set only if the Bank has a legally enforceable right to off-set the related current income tax assets and liabilities, and the assets and liabilities relate to income tax levied by the same tax authority and are intended to be settled on a net basis.

3. Significant Accounting Policies, Continued

(26) Accounting for trust accounts

The Bank, for financial reporting, differentiates trust assets from identifiable assets according to the *Financial Investment Services and Capital Markets Act.* Furthermore, the Bank receives trust fees from the application, management and disposal of trust assets, and appropriates such amounts for fees from trust accounts.

Meanwhile, in the case the fee from an unspecified principal or interests guaranteed money in trust does not meet the principal or interest amount, even after appropriating deficit with trust fees and special reserve, the Bank fills in the remaining deficit in the trust account and appropriates such amounts for losses on trust accounts.

(27) Regulatory reserve for credit losses

When the total sum of allowance for possible credit losses is lower than the amount prescribed in Article 29(1) of the *Regulations on Supervision of Banking Business,* the Bank records the difference as regulatory reserve for credit losses at the end of each reporting period.

In the case that the existing regulatory reserve for credit losses exceeds the amount needed to be set aside at the reporting date, the surplus may be reversed. Furthermore, in the case that undisposed deficit exists, regulatory reserve for credit losses is saved from the time the undisposed deficit is disposed.

(28) Earnings per share

The Bank represents its diluted and basic earnings per common share in the separate statement of comprehensive income. Basic earnings per share (EPS) is calculated by dividing net profit attributable to shareholders of the Bank by the weighted average number of common shares outstanding during the reporting period. Diluted earnings per share is calculated by adjusting net profit attributable to common shareholders of the Bank, considering dilution effects from all potential common shares, and the weighted average number of common shares outstanding.

(29) Corrections of errors

Prior period errors shall be corrected by retrospective restatement in the first set of financial statements authorised for issue after their discovery except to the extent that it is impracticable to determine either the period-specific effects or the cumulative effect of the error.

4. Cash and Due from Banks

(1) Cash and due from banks as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Cash	₩ 52,240	53,529
Due from banks in Korean won:		
Due from Bank of Korea	4,140,277	1,824,440
Other due from banks in Korean won	347,074	132,311
	4,487,351	1,956,751
Due from banks in foreign currencies / off-shores	5,989,387	4,581,894
	₩ 10,528,978	6,592,174

(2) Restricted due from banks as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Reserve deposit	₩ 3,052,883	1,885,915
Deposit of monetary stabilization account	1,300,000	150,000
Others	216,549	239,788
	₩ 4,569,432	2,275,703

5. Securities Measured at FVTPL

(1) Details of securities in financial assets at fair value through profit or loss as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		
	Face value	Acquisition cost	Fair value (Carrying amounts)
Securities denominated in Korean won:			
Stocks	₩ —	745,860	622,918
Equity investments	—	233,467	291,984
Beneficiary certificates	—	5,726,787	5,841,059
Government and public bonds	1,024,950	1,031,165	1,023,738
Financial bonds	—	—	—
	1,024,950	7,737,279	7,779,699
Securities denominated in foreign currencies/off-shores:			
Stocks	—	—	—
Equity investments	—	21,177	19,800
Beneficiary certificates	—	555,149	507,518
Debt securities	13,600	14,532	13,614
	13,600	590,858	540,932
	₩ 1,038,550	8,328,137	8,320,631

5. Securities Measured at FVTPL, Continued

	December 31, 2019		
	Face value	Acquisition cost	Fair value (Carrying amounts)
Securities denominated in Korean won:			
Stocks	₩ —	534,558	422,297
Equity investments	—	192,546	235,946
Beneficiary certificates	—	3,738,987	3,760,541
Government and public bonds	1,408,000	1,405,998	1,405,368
Financial bonds	1,470,000	1,464,593	1,462,557
	2,878,000	7,336,682	7,286,709
Securities denominated in foreign currencies/off-shores:			
Stocks	—	3,885	3,957
Equity investments	—	12,301	13,293
Beneficiary certificates	—	391,190	412,457
Debt securities	105,500	106,556	105,943
	105,500	513,932	535,650
	₩ 2,983,500	7,850,614	7,822,359

(2) Equity securities with disposal restrictions in financial assets at fair value through profit or loss as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		
Company	Number of shares	Carrying amount	Restricted period
National Happiness Fund Co., Ltd.	34,066	₩ 66,934	Undecided
Shinhan Metal Co., Ltd.	7,692	—	Until December 31, 2021
	41,758	₩ 66,934	

	December 31, 2019		
Company	Number of shares	Carrying amount	Restricted period
National Happiness Fund Co., Ltd.	34,066	₩ 73,320	Undecided
Shinhan Metal Co., Ltd.	7,692	—	Undecided
	41,758	₩ 73,320	

6. Securities Measured at FVOCI

(1) Details of securities measured at FVOCI as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		
	Face value	Acquisition cost	Fair value (Carrying amounts)
Securities denominated in Korean won:			
Stocks and equity investments	₩ —	9,964,039	10,060,520
Government and public bonds	1,900,000	1,923,926	1,918,765
Financial bonds	4,230,000	4,236,741	4,237,990
Corporate bonds	7,570,541	7,570,748	7,558,145
Others	2,141,115	2,137,849	4,803,611
	15,841,656	25,833,303	28,579,031
Securities denominated in foreign currencies/off-shores:			
Equity securities	—	1,640	984
Debt securities	5,104,050	5,206,146	5,271,504
	5,104,050	5,207,786	5,272,488
Loaned securities:			
Debt securities	290,000	289,641	289,806
	₩ 21,235,706	31,330,730	34,141,325

	December 31, 2019		
	Face value	Acquisition cost	Fair value (Carrying amounts)
Securities denominated in Korean won:			
Stocks and equity investments	₩ —	9,990,765	10,094,512
Government and public bonds	919,000	925,392	924,846
Financial bonds	2,760,000	2,765,502	2,765,703
Corporate bonds	5,164,006	5,163,926	5,141,941
Others	1,342,650	1,342,649	1,024,299
	10,185,656	20,188,234	19,951,301
Securities denominated in foreign currencies/off-shores:			
Equity securities	—	2,670	976
Debt securities	4,165,446	4,225,374	4,256,824
	4,165,446	4,228,044	4,257,800
Loaned securities:			
Debt securities	40,000	40,005	40,059
	₩ 14,391,102	24,456,283	24,249,160

6. Securities Measured at FVOCI, Continued

Equity instruments that are held by acquisition due to conversion from debt instruments, investment in kind and investment in ventures and SMEs are designated as measured at FVOCI. The realized pre-tax income and loss on disposal of equity securities for the years ended December 31, 2020 and 2019 are the amount of W56,331 million of loss and W27,322 million of gain, respectively, which is directly recognized in retained earnings.

(2) Changes in securities measured at FVOCI for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Beginning balance	₩ 24,249,160	22,805,676
Acquisition	57,798,921	24,034,431
Disposal	(50,600,127)	(22,683,403)
Change due to amortization	(47,692)	(9,846)
Change in fair value	3,046,042	(82,713)
Reclassification	—	(4,846)
Foreign exchange differences	(318,693)	147,463
Others (*)	13,714	42,398
Ending balance	₩ 34,141,325	24,249,160

(*) For the year ended December 31, 2020, others represent the increase in securities measured at FVOCI including shares of SOLUM CO., LTD. acquired through exercise of conversion rights of the convertible bonds, shares of POSCO PLANTEC CO., LTD. and High Gain Antenna Co., Ltd. acquired pursuant to decision of the Council of Financial Creditors under the Corporate Restructuring Promotion Act, and shares of Barun Electronics Co., Ltd., STEELLIFE Co., C-PRO ELECTRONICS CO., LTD., Dong-A Tanker Co., SEOKJIN E&T CO., LTD., Sung Chang Inter Fashion Co., Ltd. and others acquired in accordance with the rehabilitation plan under the Debtor Rehabilitation and Bankruptcy Act. For the year ended December 31, 2019, others represent the increase in securities measured at FVOCI including shares of Ecopro BM Co., Ltd., Kuk-Il Paper MFG Co., Ltd., TRUWIN Co., Ltd., Solid Inc. and others acquired through exercise of conversion rights of the convertible bonds.

6. Securities Measured at FVOCI, Continued

(3) Equity securities with disposal restrictions in securities measured at FVOCI as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		
Company	Number of shares	Carrying amount	Restricted period
UAMCO., Ltd.	113,050	₩ 150,244	Undecided
High Gain Antenna Co., Ltd.	18,138	—	Undecided
Engine Tech Co., Ltd.	500,000	1	Undecided
Taihan Electric Wire Co., Ltd.	15,892,055	21,772	Undecided
POSCO Plantec Co., Ltd.	1,838,744	2,468	Until June 9, 2021
CREA IN Co., Ltd.	14,383	140	Until December 21, 2021
Kumho Tire Co., Inc.	21,339,320	80,769	Until July 6, 2023(*)
	39,715,690	₩ 255,394	

	December 31, 2019		
Company	Number of shares	Carrying amount	Restricted period
UAMCO., Ltd.	85,050	₩ 122,850	Undecided
Engine Tech Co., Ltd.	500,000	77	Undecided
Taihan Electric Wire Co., Ltd.	15,892,055	9,790	Undecided
CREA IN Co., Ltd.	14,383	56	Until December 21, 2021
Kumho Tire Co., Inc.	21,339,320	89,518	Until July 6, 2023(*)
	37,830,808	₩ 222,291	

(*) From July 6, 2021, 50% of the shares may be sold every year.

(4) Changes in the loss allowance in relation to securities measured at FVOCI for the years ended December 31, 2020 and 2019 are as follows:

	2020			
		Lifetime expected credit loss		
	12-month expected credit loss	Non credit-Impaired	Credit-impaired	Total
Beginning balance	₩ 2,354	116	71,336	73,806
Transfer to 12-month expected credit loss	3	(3)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired debt securities	(361)	361	—	—
Transfer to credit-impaired debt securities	—	—	—	—
Increase (reversal) of loss allowance	8,177	300	60	8,537
Disposal	(130)	—	—	(130)
Foreign currency translation, etc.	(372)	435	(998)	(935)
Ending balance	₩ 9,671	1,209	70,398	81,278

6. Securities Measured at FVOCI, Continued

	2019			
	Lifetime expected credit loss			
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 3,479	2,169	70,846	76,494
Transfer to 12-month expected credit loss	25	(25)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired debt securities	(116)	116	—	—
Transfer to credit-impaired debt securities	—	—	—	—
Reversal of loss allowance	(238)	(42)	(1,805)	(2,085)
Disposal	(915)	(2,125)	—	(3,040)
Foreign currency translation, etc.	119	23	2,295	2,437
Ending balance	₩ 2,354	116	71,336	73,806

7. Securities Measured at Amortized Cost

(1) Securities measured at amortized cost as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	
	Amortized cost	Fair value
Securities denominated in Korean won:		
Government and public bonds	₩ 665,183	665,183
Financial bonds	120,090	120,081
	785,273	785,264
Less: loss allowance	(9)	—
	₩ 785,264	785,264

	December 31, 2019	
	Amortized cost	Fair value
Securities denominated in Korean won:		
Government and public bonds	₩ 291,338	291,339
Financial bonds	1,210,611	1,210,608
	1,501,949	1,501,947
Less: loss allowance	(2)	—
	₩ 1,501,947	1,501,947

(2) Changes in securities measured at amortized cost for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Beginning balance	₩ 1,501,947	1,695,927
Acquisition	657,701	552,563
Redemption	(1,370,003)	(745,101)
Change due to amortization	(4,374)	(1,440)
Impairment loss	(7)	(2)
Ending balance	₩ 785,264	1,501,947

8. Loans Measured at FVTPL

(1) Loans measured at FVTPL as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		December 31, 2019	
	Amortized cost	Fair value (Carrying amounts)	Amortized cost	Fair value (Carrying amounts)
Loans in Korean won:				
Privately placed corporate bonds	₩ 795,871	1,429,258	600,845	604,380
Loans in foreign currencies/off-shores:				
Privately placed corporate bonds	5,440	5,256	—	—
	₩ 801,311	1,434,514	600,845	604,380

(2) Gains (losses) related to loans measured at FVTPL for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Transaction gains (losses) on loans measured at FVTPL		
Transaction gains	₩ 4,568	23,456
Transaction losses	(29,155)	(27,231)
	(24,587)	(3,775)
Valuation gains (losses) on loans measured at FVTPL		
Valuation gains	676,776	59,719
Valuation losses	(27,509)	(16,798)
	649,267	42,921
	₩ 624,680	39,146

9. Loans Measured at Amortized Cost

(1) Loans measured at amortized cost and loss allowance for loan as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		December 31, 2019	
	Amortized cost	Fair value	Amortized cost	Fair value
Loans in Korean won:				
Loans for working capital	₩ 63,711,135	62,132,170	53,197,392	51,817,885
Loans for facility development	51,237,311	50,692,553	45,905,137	45,694,511
Loans for households	238,011	240,468	320,911	323,902
Inter-bank loans	2,710,868	2,589,344	2,340,737	2,209,054
	117,897,325	115,654,535	101,764,177	100,045,352
Loans in foreign currencies:				
Loans	17,196,875	16,860,390	15,902,373	16,262,859
Inter-bank loans	1,636,589	1,636,166	2,607,758	2,603,090
Off-shore loans	14,697,580	14,387,438	14,509,257	14,427,037
	33,531,044	32,883,994	33,019,388	33,292,986
Other loans:				
Bills bought in foreign currency	2,198,964	2,198,079	1,908,750	1,903,395
Advances for customers on acceptances and guarantees	49,908	10,776	181,219	21,865
Privately placed corporate bonds	1,182,436	969,648	560,909	343,314
Others	4,223,895	4,102,454	5,551,613	5,497,315
	7,655,203	7,280,957	8,202,491	7,765,889
	159,083,572	155,819,486	142,986,056	141,104,227
Less:				
Loss allowance for loan	(3,776,491)		(3,105,782)	
Present value discount	(15,906)		(15,820)	
Deferred loan origination costs and fees	9,003		7,188	
	₩ 155,300,178		139,871,642	

9. Loans Measured at Amortized Cost, Continued

(2) Changes in loss allowance for loan for the years ended December 31, 2020 and 2019 are as follows:

	2020			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 169,293	1,045,942	1,890,547	3,105,782
Transfer to 12-month expected credit loss	60,305	(60,305)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired loans	(256,809)	279,451	(22,642)	—
Transfer to credit-impaired loans	(90,489)	(124,895)	215,384	—
Provision for (reversal of) loss allowance	775,958	116,607	284,462	1,177,027
Write-offs	—	—	(158,616)	(158,616)
Recovery	—	—	54,239	54,239
Sale	—	—	(272,431)	(272,431)
Debt-to-equity swap	—	—	(415,141)	(415,141)
Foreign currency translation	(2,105)	(11,221)	(5,862)	(19,188)
Other	(16,059)	152,882	167,996	304,819
Ending balance	₩ 640,094	1,398,461	1,737,936	3,776,491

	2019			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 169,303	1,756,622	1,613,149	3,539,074
Transfer to 12-month expected credit loss	14,989	(14,868)	(121)	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired loans	(53,755)	56,706	(2,951)	—
Transfer to credit-impaired loans	(135,492)	(293,151)	428,643	—
Provision for loss allowance	173,638	(516,153)	402,320	59,805
Write-offs	—	—	(149,932)	(149,932)
Recovery	—	—	23,960	23,960
Sale	—	—	(238,518)	(238,518)
Debt-to-equity swap	—	—	(231,880)	(231,880)
Foreign currency translation	1,083	13,513	10,376	24,972
Other	(473)	43,273	35,501	78,301
Ending balance	₩ 169,293	1,045,942	1,890,547	3,105,782

9. Loans Measured at Amortized Cost, Continued

(3) Gains (losses) related to loans measured at amortized cost for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Provision for allowance for loan losses	₩ (1,177,027)	(59,805)
Losses on disposal of loan	(109,719)	(99,525)
	₩ (1,286,746)	(159,330)

(4) Changes in net deferred loan origination costs and fees for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Beginning balance	₩ 7,188	15,314
New deferrals	14,609	6,937
Amortization	(12,794)	(15,063)
Ending balance	₩ 9,003	7,188

10. Derivative Financial Instruments

The Bank's derivative financial instruments consist of trading derivatives and hedging derivatives, depending on the nature of each transaction. The Bank enters into hedging derivative transactions mainly for the purpose of hedging risk related to changes in fair values of the underlying assets and liabilities and future cash flows.

The Bank enters into trading derivative transactions such as futures, forwards, swaps and options for arbitrage transactions by speculating on the future value of the underlying asset. Derivatives held-for trading transactions include contracts with the Bank's clients and its liquidation position.

For the purpose of hedging the exposure to the variability of fair values and cash flows of funds in Korean won by changes in interest rate, the Bank mainly uses interest swaps or currency swaps. The main counterparties are foreign financial institutions and local banks. In addition, to hedge the exposure to the variability of fair values of bonds in foreign currencies by changes in interest rate or foreign exchange rate, the Bank mainly uses interest swaps or currency swaps.

The Bank applies net investment hedge accounting by designating non-derivative financial instruments as hedging instruments and any gain or loss on the hedging instruments relating to the effective portion of the hedge is recognised in other comprehensive income and accumulated in the foreign currency translation reserve.

Gains and losses on the hedging instrument accumulated in the foreign currency translation reserve are reclassified to profit or loss on the disposal or partial disposal of the foreign operation.

10. Derivative Financial Instruments, Continued

(1) The notional amounts outstanding for derivative contracts and the carrying amounts of the derivative financial instruments as of December 31, 2020 and 2019 are as follows:

	December 31, 2020			
	Notional amounts		Carrying amounts	
	Buy	Sell	Asset	Liability
Trading purpose derivative financial instruments:				
Interest rate				
Futures	₩ 55,000	151,200	—	—
Swaps	187,095,329	187,096,172	1,493,796	811,643
Options	9,055,649	12,890,976	291,068	329,946
	196,205,978	200,138,348	1,784,864	1,141,589
Currency				
Futures	16,320	—	—	—
Forwards	58,129,120	49,012,225	1,807,677	2,251,316
Swaps	50,228,615	56,919,490	3,285,228	2,808,945
Options	422,146	403,029	2,909	5,299
	108,796,201	106,334,744	5,095,814	5,065,560
Stock				
Futures	—	—	—	—
Options	53,571	7,315	8,214	661
	53,571	7,315	8,214	661
Allowance and other adjustments	—	—	(7,921)	(908)
	305,055,750	306,480,407	6,880,971	6,206,902
Hedging purpose derivative financial instruments:				
Interest rate (*)				
Swaps	18,877,120	18,877,120	885,364	19,567
Currency				
Swaps	8,308,800	7,985,902	563,558	83,201
Allowance and other adjustments	—	—	(517)	(4,383)
	27,185,920	26,863,022	1,448,405	98,385
	₩ 332,241,670	333,343,429	8,329,376	6,305,287

(*) The expected maximum period for which derivative contracts, applied the cash flow hedge accounting, are exposed to risk of cash flow fluctuation is until April 29, 2025.

10. Derivative Financial Instruments, Continued

	December 31, 2019			
	Notional amounts		Carrying amounts	
	Buy	Sell	Asset	Liability
Trading purpose derivative financial instruments:				
Interest rate				
Futures	₩ —	1,885,190	—	—
Swaps	221,240,309	221,240,869	1,210,141	704,385
Options	7,480,126	12,736,326	246,636	312,188
	228,720,435	235,862,385	1,456,777	1,016,573
Currency				
Futures	17,367	—	—	—
Forwards	91,778,527	85,052,344	1,743,010	1,519,732
Swaps	50,446,341	56,239,865	1,347,902	1,444,421
Options	214,646	171,284	1,134	2,813
	142,456,881	141,463,493	3,092,046	2,966,966
Stock				
Forwards	—	3,564	—	—
Options	59,964	89,672	10,054	641
	59,964	93,236	10,054	641
Allowance and other adjustments	—	—	(32,691)	(628)
	371,237,280	377,419,114	4,526,186	3,983,552
Hedging purpose derivative financial instruments:				
Interest rate (*)				
Swaps	21,931,900	21,931,900	827,596	17,071
Currency				
Swaps	7,681,686	7,869,665	79,333	175,833
Allowance and other adjustments	—	—	(308)	(4,788)
	29,613,586	29,801,565	906,621	188,116
	₩ 400,850,866	407,220,679	5,432,807	4,171,668

(*) The expected maximum period for which derivative contracts, applied the cash flow hedge accounting, are exposed to risk of cash flow fluctuation is until September 11, 2020.

10. Derivative Financial Instruments, Continued

(2) The notional amounts outstanding for the hedging instruments by period as of December 31, 2020 and 2019 are as follows:

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Interest rate:						
Notional amounts outstanding	₩47,200	154,043	3,015,053	10,843,135	4,817,689	18,877,120
Currency:						
Notional amounts outstanding	₩77,504	290,040	1,851,289	5,711,249	378,718	8,308,800

	December 31, 2019					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Interest rate:						
Notional amounts outstanding	₩30,103	1,059,731	3,562,271	10,354,523	6,925,272	21,931,900
Currency:						
Notional amounts outstanding	₩60,099	58,009	1,734,965	5,410,430	418,183	7,681,686

(3) Details of the balances of the hedging instruments by risk type as of December 31, 2020 and 2019 are as follows:

	December 31, 2020				
	Notional amounts		Balances		Changes in fair value for 2020
	Buy	Sell	Assets	Liabilities	
Cash flow hedge accounting:					
Interest rate risk Swaps	₩ 76,160	76,160	—	—	23
Fair value hedge accounting:					
Interest rate risk Swaps	18,800,960	18,800,960	885,364	19,567	358,347
Currency risk Swaps	8,308,800	7,985,902	563,558	83,201	502,957
	27,109,760	26,786,862	1,448,922	102,768	861,304
	₩27,185,920	26,863,022	1,448,922	102,768	861,327

10. Derivative Financial Instruments, Continued

	December 31, 2019				
	Notional amounts		Balances		Changes in fair value for 2019
	Buy	Sell	Assets	Liabilities	
Cash flow hedge accounting:					
Interest rate risk Swaps	₩ 340,000	340,000	—	508	302
Fair value hedge accounting:					
Interest rate risk Swaps	21,591,900	21,591,900	827,596	16,563	493,545
Currency risk Swaps	7,681,686	7,869,665	79,333	175,833	(19,778)
	29,273,586	29,461,565	906,929	192,396	473,767
	₩29,613,586	29,801,565	906,929	192,904	474,069

(4) Details of the balances of the hedged items by risk type as of December 31, 2020 and 2019 are as follows:

	December 31, 2020					
	Carrying amounts		Change in value of the hedged item		Changes in fair value for 2020	Cash flow hedge reserve
	Assets	Liabilities	Assets	Liabilities		
Cash flow hedge accounting:						
Interest rate risk Debt debentures	₩ —	76,160	—	—	—	47
Fair value hedge accounting:						
Interest rate risk Securities measured at FVOCI	1,922,565	—	18,217	—	47,606	—
Debt debentures	—	18,549,949	—	628,869	(396,922)	—
Other liabilities (Deposits, etc.)	—	120,394	—	11,594	(8,770)	—
	1,922,565	18,670,343	18,217	640,463	(358,086)	—
Currency risk						
Debt debentures	—	8,413,087	—	24,675	(503,895)	—
	1,922,565	27,083,430	18,217	665,138	(861,981)	—
	₩1,922,565	27,159,590	18,217	665,138	(861,981)	47

10. Derivative Financial Instruments, Continued

	December 31, 2019					
	Carrying amounts		Change in value of the hedged item		Changes in fair value for 2019	Cash flow hedge reserve
	Assets	Liabilities	Assets	Liabilities		
Cash flow hedge accounting:						
Interest rate risk Debt debentures	₩ —	340,000	—	—	—	(403)
Fair value hedge accounting:						
Interest rate risk Securities measured at FVOCI	1,775,986	—	7,089	—	34,518	—
Debt debentures	—	21,557,631	—	288,378	(513,063)	—
Other liabilities (Deposits, etc.)	—	118,785	—	3,005	(9,424)	—
	1,775,986	21,676,416	7,089	291,383	(487,969)	—
Currency risk						
Debt debentures	—	9,384,387	—	43,847	15,932	—
	1,775,986	31,060,803	7,089	335,230	(472,037)	—
	₩ 1,775,986	31,400,803	7,089	335,230	(472,037)	(403)

(5) Details of hedge ineffectiveness recognized in profit or loss from derivatives for the years ended December 31, 2020 and 2019 is as follows:

	2020	2019
Interest rate risk	₩ 261	5,576
Currency risk	(938)	(3,846)
	₩ (677)	1,730

(6) The summary of the amounts that have affected the statement of comprehensive income as a result of applying cash flow hedge accounting for the years ended December 31, 2020 and 2019 is as follows:

	2020		
	Change in the value of the hedging instrument recognized in other comprehensive income	Hedge ineffectiveness recognized in profit or loss (*)	Amount reclassified from other comprehensive income to profit or loss(*)
Interest rate risk	₩47	(24)	403

(*) Recognized in gains or losses related to hedging purpose derivatives.

	2019		
	Change in the value of the hedging instrument recognized in other comprehensive income	Hedge ineffectiveness recognized in profit or loss (*)	Amount reclassified from other comprehensive income to profit or loss (*)
Interest rate risk	₩300	2	1,876

(*) Recognized in gains or losses related to hedging purpose derivatives.

10. Derivative Financial Instruments, Continued

(7) Details of net investments in foreign operations for the years ended December 31, 2020 and 2019 are as follows:

	2020	
	Changes in fair value	Other comprehensive income for hedges of net investments in foreign operations
Currency (foreign exchange risk)	₩(43,437)	(48,975)

	2019	
	Changes in fair value	Other comprehensive income for hedges of net investments in foreign operations
Currency (foreign exchange risk)	₩(5,538)	5,538

(8) Details of hedging instruments in hedge of net investments in foreign operations as of December 31, 2020 and 2019 are as follows:

	December 31, 2020			
	Carrying amount	Changes in fair value for 2020	Change in the value of the hedging instrument recognized in other comprehensive income for 2020	Hedge ineffectiveness recognized in profit or loss for 2020
Debentures in foreign currencies	₩732,566	43,437	43,437	—

	December 31, 2019			
	Carrying amount	Changes in fair value for 2019	Change in the value of the hedging instrument recognized in other comprehensive income for 2019	Hedge ineffectiveness recognized in profit or loss for 2019
Debentures in foreign currencies	₩734,718	5,538	5,538	—

(9) In relation to interest rate benchmark reform, the amendments provide a practical expedient allowing entities to change the effective interest rate instead of changing the carrying amount and apply hedge accounting without discontinuance although the interest rate benchmark is replaced in hedging relationship. The notional amounts outstanding for hedging derivative instruments affected by Interest Rate Benchmark Reform as of December 31, 2020 are as follows:

	Notional amounts
USD 3M LIBOR	₩17,393,414
KRW 3M CD	2,635,000
EUR 3M EURIBOR	537,149
EUR 6M EURIBOR	669,120
GBP 6M LIBOR	205,904
JPY 3M LIBOR	23,194

11. Investments in Subsidiaries and Associates

(1) Investments in subsidiaries and associates as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Subsidiaries:(*1)		
KDB Asia Ltd.	₩ 332,907	332,907
KDB Bank Europe Ltd.(*2)	144,659	151,952
KDB Ireland Ltd.	62,389	62,389
KDB Bank Uzbekistan Ltd.	47,937	47,937
Banco KDB Do Brazil S.A.(*3)	31,270	45,548
KDB Indonesia Ltd.	40,233	—
KDB Investment Co., Ltd.	70,000	70,000
KDB Biz Co., Ltd.	1,500	1,500
KDB Capital Corporation	597,290	597,290
Korea BTL Financing 1	156,109	169,106
Korea Railroad Financing 1	90,316	96,015
Korea Education Financing	50,274	54,759
KDB Infrastructure Investment Asset Management Co., Ltd.	16,843	16,843
Korea Infrastructure Financing Co.(*4)	2,313	4,584
KDB Investment PEF No.1(*5)	977,570	948,758
KDB Consus Value PEF(*6)	157,759	334,086
KDB Sigma PEF II	18,468	116,445
KDB Value PEF VII	9,231	16,031
KDB-IAP OBOR PEF(*7)	6,086	34,140
KDB Asia PEF	26,326	15,157
KDB Small Medium Mezzanine PEF	81,740	47,741
Corporate Liquidity Assistance Agency Co., Ltd.	1,000,000	—
	3,921,220	3,163,188
Associates**:**		
Korea Electric Power Co., Ltd.	16,921,067	16,921,067
Korea Tourism Organization	337,286	337,286
Korea Infrastructure Financing 2 Co.	219,902	220,394
Korea Ocean Business Corporation	631,777	631,777
Korea Real Estate Board	58,492	58,492
HMM Co., Ltd.	78,835	78,835
GM Korea Company(*8)	436,930	401,512
Hanjin Heavy Industries & Construction Co., Ltd.(*9)	—	66,665
HANJIN KAL	500,000	—
Multi Asset Electronic Power PEF	19,464	20,749
Shinbundang Railroad Co., Ltd.(*10)	30,999	9,422
Troika Resources Investment PEF(*11)	2,336	3,558
Others(*12)	2,395,253	2,277,157
	21,632,341	21,026,914
	₩25,553,561	24,190,102

11. Investments in Subsidiaries and Associates, Continued

(*1) The Bank acquired an additional 172,732 of common shares of Daehan Shipbuilding Co., Ltd. and recognized ₩1,727 million of impairment losses for the year ended December 31, 2020, considering the impaired capital of Daehan Shipbuilding Co., Ltd. as objective evidence of impairment.

(*2) The Bank recognized ₩58,965 million of impairment losses for the year ended December 31, 2020, considering decrease in value in use due to deterioration of expected cash flows from the shares held by the Bank.

(*3) The Bank recognized ₩14,279 million of impairment losses for year ended December 31, 2020, considering decrease in value in use due to deterioration of expected cash flows from the shares held by the Bank and ₩1,907 million of reversal of impairment losses for year ended December 31, 2019.

(*4) The Bank recognized ₩175 million and ₩177 million of impairment losses for years December 31, 2020 and 2019, respectively, considering the decline in net asset values due to the decrease in fair value of assets held as objective evidence of impairment.

(*5) For the year ended December 31, 2019, KDB Value PEF VI was liquidated and KDB Investment PEF NO.1 is acquired. Through this transaction, the shares of Daewoo Engineering & Construction Co., Ltd. held by KDB Value PEF VI as sub-subsidiary were transferred to KDB Investment PEF NO.1 whereby the Bank maintained its control over Daewoo Engineering & Construction Co., Ltd. The Bank considered the transfer as a transaction between subsidiaries under common control and does not recognized gain or loss on the transfer in the separate financial statements. Additionally, the Bank recognized ₩2,153 million and ₩38,124 million of reversal of impairment losses for the years ended December 31, 2020 and 2019, respectively, considering the change in the value in use of cash-generating units based on its estimation of expected cash flows.

(*6) The Bank signed a stock purchase agreement with JC Partners on the December 31, 2020 to sell the Bank's shares of KDB Life Insurance Co., Ltd., the Bank's sub-subsidiary. The Bank recognized ₩176,327 million of impairment losses for the year ended December 31, 2020 based on the expected cash flows distributed to the Bank through the disposal of KDB Life Insurance Co., Ltd. and recognized ₩77,067 million of impairment losses for the year ended December 31, 2019.

(*7) The Bank recognized ₩28,054 million of impairment losses for year December 31, 2020, considering the decline in net asset values due to the decrease in fair value of assets held as objective evidence of impairment.

(*8) The Bank recognized ₩35,417 million of reversal of impairment losses for year ended December 31, 2020, considering increase in value in use due to improvement of operating cash flows and ₩48,991 million of impairment losses for year ended December 31, 2019.

(*9) The Bank picked Dongbu-led consortium as the preferred bidder for Hanjin Heavy Industries & Construction Co., LTD. on December 22, 2020, which was reclassified as assets held for sale for the year ended December 31, 2020 (Note 16). The Bank recognized ₩11,613 million of reversal of impairment losses for the year ended December 31, 2020 based on the expected cash flows distributed to the Bank through the disposal of Hanjin Heavy Industries & Construction Co., LTD. and recognized ₩72,445 million of impairment losses for the year ended December 31, 2019.

(*10) The Bank recognized ₩21,577 million and ₩601 million of reversal of impairment losses for the years ended December 31, 2020 and 2019, respectively, considering increase in fair value due to improvement of expected dividend cash flows from the shares held by the Bank.

(*11) The Bank recognized ₩1,222 million and ₩5,292 million of impairment losses for years December 31, 2020 and 2019, respectively, considering the decline in net asset values due to the decrease in fair value of assets held as objective evidence of impairment.

11. Investments in Subsidiaries and Associates, Continued

(*12) The Bank recognized ₩29,503 million of impairment losses for KBS KDB PEF and 19 other companies for the year ended December 31, 2020. The Bank recognized ₩11,025 million of impairment losses for KBS KDB PEF and 18 other companies for the year ended December 31, 2019.

(2) The market value of marketable investments in subsidiaries and associates as of December 31, 2020 and 2019 are as follows:

	Market value		Carrying amounts	
	December 31, 2020	December 31, 2019	December 31, 2020	December 31, 2019
Korea Electric Power Co., Ltd.	₩5,787,846	5,872,340	16,921,067	16,921,067
HMM Co., Ltd.	574,730	146,258	78,835	78,835
Hanjin Heavy Industries & Construction Co., Ltd.(*)	—	67,001	—	66,665
HANJIN KAL	445,621	—	500,000	—
KG Dongbu Steel Co., Ltd.	127,359	103,622	67,599	81,746

(*) The Bank reclassified the shares to assets held for sale.

11. Investments in Subsidiaries and Associates, Continued

(3) The key financial information of subsidiaries and associates invested and ownership ratios as of December 31, 2020 and 2019 are as follows:

	December 31, 2020									
	Country	Fiscal year end	Industry	Assets	Liabilities	Equity	Operating revenue	Net income (loss)	Total comprehensive income (loss)	Ownership (%)
Subsidiaries:										
KDB Asia Ltd.	Hong Kong	December	Finance	₩ 2,693,398	2,222,031	471,367	132,319	12,603	(18,151)	100.00
KDB Bank Europe Ltd.	Hungary	December	Finance	1,191,023	1,079,628	111,395	55,804	(15,780)	(26,355)	100.00
KDB Ireland Ltd.	Ireland	December	Finance	468,754	369,654	99,100	23,062	4,572	(1,828)	100.00
KDB Bank Uzbekistan Ltd.	Uzbekistan	December	Finance	628,874	562,988	65,886	24,028	8,401	(4,776)	86.32
Banco KDB Do Brazil S.A.	Brazil	December	Finance	315,666	257,100	58,566	96,007	1,917	(19,812)	100.00
KDB Indonesia Ltd.	Indonesia	December	Finance	87,891	57,455	30,436	12,345	1,831	1,831	84.65
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Korea	December	Manufacturing	10,320,775	6,451,804	3,868,971	7,030,175	86,573	114,107	55.68
Sam Woo Heavy Industries Co., Ltd. (*1)	Korea	December	Manufacturing	253,735	231,394	22,341	135,932	1,037	1,104	100.00
Daehan Shipbuilding Co., Ltd. (*1)	Korea	December	Manufacturing	636,255	790,594	(154,339)	765,204	(5,518)	(5,704)	70.04
KDB Capital Corporation	Korea	December	Specialized Credit Finance	6,607,724	5,518,888	1,088,836	431,722	173,681	171,657	99.92
Korea BTL Financing 1 (*2)	Korea	Semi-annually	Financial investment	395,038	259	394,779	14,120	6,822	6,822	41.67
Korea Railroad Financing 1 (*2)	Korea	Semi-annually	Financial investment	190,706	9	190,697	9,681	9,201	9,201	50.00
Korea Education Financing (*2)	Korea	Semi-annually	Financial investment	108,656	7	108,649	7,275	6,994	6,994	50.00
KDB Infrastructure Investment Asset Management Co., Ltd.	Korea	December	Asset management	59,818	10,715	49,103	35,072	17,972	17,951	84.16
KDB Investment Co., Ltd.	Korea	December	Finance	77,601	2,997	74,604	9,420	3,042	3,054	100.00
KDB Biz Co., Ltd.	Korea	December	Services	8,207	5,907	2,300	25,468	1,149	603	100.00
Korea Infrastructure Financing Co.	Korea	December	Financial investment	2,777	12	2,765	191	(22)	(22)	85.00
KDB Investment PEF No.1	Korea	December	Financial investment	9,701,074	7,233,393	2,467,681	8,361,795	58,745	23,799	99.46
KDB Consus Value PEF	Korea	December	Financial investment	19,548,528	19,015,550	532,978	8	(140,754)	(172,013)	68.20
KDB Sigma PEF II	Korea	December	Financial investment	39,432	1	39,431	51,694	51,465	52,715	60.00
KDB Value PEF VII (*3)	Korea	December	Financial investment	27,294	82	27,212	763	(154)	(154)	50.00
KDB-IAP OBOR PEF (*3)	Korea	December	Financial investment	119,687	49,307	70,380	—	(23,969)	(28,026)	33.52
KDB Asia PEF (*3)	Korea	December	Financial investment	46,847	175	46,672	—	4,910	(5,606)	50.00
KDB Small Medium Mezzanine PEF	Korea	December	Financial investment	120,692	377	120,315	9,416	(4,740)	(5,655)	66.67
Corporate Liquidity Assistance Agency Co., Ltd.	Korea	December	Financial investment	2,992,986	1,990,277	1,002,709	20,419	2,709	2,709	100.00
Components and Materials M&A PEF	Korea	December	Financial investment	1,076	1,827	(751)	2	(13)	(13)	83.33

11. Investments in Subsidiaries and Associates, Continued

	December 31, 2020									
	Country	Fiscal year end	Industry	Assets	Liabilities	Equity	Operating revenue	Net income (loss)	Total comprehensive income (loss)	Ownership (%)
Associates:										
Korea Electric Power Co., Ltd.	Korea	December	Electricity Generation	203,142,111	132,475,265	70,666,846	58,569,314	1,991,347	1,802,824	32.90
Korea Tourism Organization	Korea	December	Culture and Tourism administration	1,351,779	388,854	962,925	488,285	(56,712)	(60,819)	43.58
Korea Infrastructure Financing 2 Co.	Korea	December	Financial investment	874,470	31,518	842,952	68,022	47,318	47,318	26.67
Korea Ocean Business Corporation	Korea	December	Finance	8,826,068	3,842,127	4,983,941	3,597,982	2,689,659	2,690,496	22.33
Korea Real Estate Board (formerly known as Korea Appraisal Board)	Korea	December	Appraisal	263,852	52,438	211,414	177,955	5,540	3,093	30.60
GM Korea Company (*4)	Korea	December	Manufacturing	5,415,322	3,739,509	1,675,813	8,504,588	(302,847)	(302,847)	17.02
HMM Co., Ltd. (*5)	Korea	December	Foreign cargo transportation	9,373,360	7,684,812	1,688,548	6,413,270	123,889	(33,766)	12.61
HANJIN KAL (*4)	Korea	December	Holding compnay	3,488,569	1,824,304	1,664,265	408,827	(269,846)	(222,157)	10.66
Multi Asset Electronic Power PEF	Korea	December	Financial investment	70,913	213	70,700	36,330	36,218	36,218	50.00
Shinbundang Railroad Co., Ltd. (*6)	Korea	December	Other	679,176	999,986	(320,810)	76,427	(50,329)	(50,329)	10.98
Troika Resources Investment PEF (*7)	Korea	December	Financial investment	5,496	1,286	4,210	312	(131)	(131)	54.94

11. Investments in Subsidiaries and Associates, Continued

	December 31, 2019									
	Country	Fiscal year end	Industry	Assets	Liabilities	Equity	Operating revenue	Net income (loss)	Total comprehensive income (loss)	Ownership (%)
Subsidiaries:										
KDB Asia Ltd.	Hong Kong	December	Finance	₩ 2,777,476	2,287,958	489,518	123,138	18,871	30,694	100.00
KDB Bank Europe Ltd.	Hungary	December	Finance	1,274,243	1,188,166	86,077	68,749	7,584	4,532	100.00
KDB Ireland Ltd.	Ireland	December	Finance	436,368	335,440	100,928	31,404	6,818	14,164	100.00
KDB Bank Uzbekistan Ltd.	Uzbekistan	December	Finance	466,389	395,726	70,663	29,555	11,291	5,403	86.32
Banco KDB Do Brazil S.A.	Brazil	December	Finance	304,220	225,841	78,379	76,423	6,099	5,933	100.00
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Korea	December	Manufacturing	11,276,079	7,521,182	3,754,897	8,358,745	(46,485)	(85,325)	55.72
Shinhan Heavy Industries Co., Ltd.	Korea	December	Manufacturing	310,463	328,024	(17,561)	235,832	(59,495)	(58,749)	89.22
Sam Woo Heavy Industries Co., Ltd. (*1)	Korea	December	Manufacturing	270,365	249,128	21,237	155,997	(11,542)	(12,036)	100.00
Daehan Shipbuilding Co., Ltd. (*1)	Korea	December	Manufacturing	637,978	786,612	(148,634)	642,586	(31,747)	(32,901)	70.04
KDB Capital Corporation	Korea	December	Specialized Credit Finance	5,884,821	4,924,781	960,040	454,281	104,141	104,287	99.92
Korea BTL Financing 1 (*2)	Korea	Semi-annually	Financial investment	433,060	284	432,776	40,240	38,966	38,966	41.67
Korea Railroad Financing 1 (*2)	Korea	Semi-annually	Financial investment	197,732	9	197,723	10,965	10,459	10,459	50.00
Korea Education Financing (*2)	Korea	Semi-annually	Financial investment	114,228	6	114,222	7,173	6,871	6,871	50.00
KDB Infrastructure Investment Asset Management Co., Ltd.	Korea	December	Asset management	57,428	11,676	45,752	35,291	19,478	19,422	84.16
KDB Investment Co., Ltd.	Korea	December	Finance	74,223	2,673	71,550	4,556	1,737	1,675	100.00
KDB Biz Co., Ltd.	Korea	December	Services	5,135	3,438	1,697	12,966	197	197	100.00
Korea Infrastructure Financing Co.	Korea	December	Financial investment	5,526	5	5,521	663	595	595	85.00
KDB Investment PEF No.1	Korea	December	Financial investment	10,246,043	7,849,961	2,396,082	8,847,952	47,432	31,369	99.46
KDB Consus Value PEF	Korea	December	Financial investment	19,192,695	18,449,320	743,375	3,653,764	(157,839)	(33,496)	68.20
KDB Sigma PEF II	Korea	December	Financial investment	197,849	497	197,352	3,228	8,008	7,980	60.00
KDB Value PEF VII	Korea	December	Financial investment	41,729	163	41,566	32,913	21,502	21,502	50.00
KDB-IAP OBOR PEF	Korea	December	Financial investment	151,973	51,756	100,217	—	7,371	10,749	33.52
KDB Asia PEF	Korea	December	Financial investment	30,112	191	29,921	—	(3,986)	2,401	50.00
KDB Small Medium Mezzanine PEF	Korea	December	Financial investment	75,726	756	74,970	5,018	4,754	4,880	66.67
Components and Materials M&A PEF	Korea	December	Financial investment	1,081	1,819	(738)	5	(62)	(62)	83.33
KDB Venture M&A PEF	Korea	December	Financial investment	120	7,910	(7,790)	—	—	—	57.56

11. Investments in Subsidiaries and Associates, Continued

	December 31, 2019									
	Country	Fiscal year end	Industry	Assets	Liabilities	Equity	Operating revenue	Net income (loss)	Total comprehensive income (loss)	Ownership (%)
Associates:										
Korea Electric Power Co., Ltd.	Korea	December	Electricity Generation	197,597,792	128,708,143	68,889,649	59,172,890	(2,345,517)	(2,239,147)	32.90
Korea Tourism Organization	Korea	December	Culture and Tourism administration	1,569,185	497,038	1,072,147	787,216	6,803	5,430	43.58
Korea Infrastructure Financing 2 Co.	Korea	December	Financial investment	929,296	70,245	859,051	106,095	99,085	99,085	26.67
Korea Ocean Business Corporation	Korea	December	Finance	4,358,100	2,069,521	2,288,579	205,269	(167,419)	(167,181)	22.33
Korea Appraisal Board	Korea	December	Appraisal	261,541	50,658	210,883	162,458	6,210	4,420	30.60
GM Korea Company (*4)	Korea	December	Manufacturing	5,492,399	3,550,438	1,941,961	8,438,789	(356,831)	(356,831)	17.02
HMM Co., Ltd. (*5)	Korea	December	Foreign cargo transportation	7,160,187	6,069,878	1,090,309	5,513,089	(589,927)	(612,482)	12.94
Hanjin Heavy Industries & Construction Co., Ltd. (*5)	Korea	December	Construction	2,470,222	2,225,228	244,994	1,628,751	305,753	267,121	16.14
Multi Asset Electronic Power PEF	Korea	December	Financial investment	64,187	256	63,931	28,674	28,489	28,489	50.00
Shinbundang Railroad Co., Ltd. (*6)	Korea	December	Other	704,546	975,027	(270,481)	103,015	(18,938)	(18,938)	10.98
Troika Resources Investment PEF (*7)	Korea	December	Financial investment	5,687	1,345	4,342	135	3,458	3,458	54.94

(*1) The Bank consolidates the investees which were subsidiaries of Daewoo Shipbuilding & Marine Engineering Co., Ltd. as the Bank has control over the investees through the commencement of the administrative proceeding for the year ended December 31, 2017.

(*2) The investees are financed by the Bank and managed by KDB Infrastructure Investments Asset Management Co., Ltd. They were included in the scope of consolidation even though the Bank holds less than half of the voting rights because the Bank is exposed to variable returns and has the ability to affect those returns through its power over the investee.

(*3) Although the Bank's shareholding in the investee is less than 50%, it controls the investee since it is exposed, or has right to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

(*4) Although the Bank's shareholding in GM Korea Company is less than 20%, the equity method is applied as the Bank is considered to have significant influence over GM Korea Company by exercising rights to elect board of directors.

(*5) Although the Bank's shareholding is less than 20%, the Bank is considered to have significant influence as the principal creditor bank.

(*6) The shareholding is above 20% upon the consideration of shares owned by the Bank's subsidiaries. Therefore, the Bank exercises significant influence over the associate.

(*7) Although the Bank's shareholding in Troika Resources Investment PEF is above 50%, the Bank as joint managing member does not have the ability to direct the relevant activities unilaterally.

12. Property and Equipment

Changes in property and equipment for the years ended December 31, 2020 and 2019 are as follows:

	2020					
	January 1, 2020	Acquisition/ depreciation	Disposal	Reclassifi-cation	Foreign exchange differences	December 31, 2020
Acquisition cost:						
Land	₩ 318,940	537	(186)	(13,455)	—	305,836
Buildings and structures	607,036	5,739	(1,052)	(11,096)	—	600,627
Leasehold improvements	43,058	2,336	(4,151)	—	937	42,180
Vehicles	740	—	(126)	—	120	734
Equipment	53,170	3,779	(2,607)	—	186	54,528
Construction in progress	1,588	16,546	—	(4,519)	—	13,615
Right-of-use assets (Real estate)	74,792	28,162	(19,954)	—	(1,797)	81,203
Right-of-use assets (Vehicles)	5,007	3,337	(2,624)	—	269	5,989
Right-of-use assets (Others)	29	—	—	—	(2)	27
Others	165,032	14,447	(890)	—	520	179,109
	1,269,392	74,883	(31,590)	(29,070)	233	1,283,848
Accumulated depreciation:						
Buildings and structures(*)	191,473	16,590	(271)	(7,443)	—	200,349
Leasehold improvements	36,078	2,930	(3,124)	—	141	36,025
Vehicles	596	58	(113)	—	(8)	533
Equipment(*)	43,348	2,954	(2,006)	—	(99)	44,197
Right-of-use assets (Real estate)	29,059	29,153	(18,139)	—	(540)	39,533
Right-of-use assets (Vehicles)	1,997	2,033	(1,462)	—	36	2,604
Right-of-use assets (Others)	13	13	—	—	(2)	24
Others	128,593	15,942	(256)	—	(462)	143,817
	431,157	69,673	(25,371)	(7,443)	(934)	467,082
Accumulated impairment losses:						
Land	3,023	—	—	—	—	3,023
Buildings and structures	2,361	—	—	—	—	2,361
	5,384	—	—	—	—	5,384
	₩ 832,851	5,210	(6,219)	(21,627)	1,167	811,382

(*) The amounts include government grants.

12. Property and Equipment, Continued

	2019							
	January 1, 2019	Changes in accounting policy	January 1, 2019 (Restated)	Acquisition/ depreciation	Disposal	Reclassification	Foreign exchange differences	December 31, 2019
Acquisition cost:								
Land	₩ 312,925	—	312,925	5,134	(2,128)	3,009	—	318,940
Buildings and structures	398,567	—	398,567	7,988	(1,241)	201,720	2	607,036
Leasehold improvements	40,892	—	40,892	2,267	—	—	(101)	43,058
Vehicles	831	—	831	162	(258)	—	5	740
Equipment	52,680	—	52,680	4,635	(4,456)	—	311	53,170
Construction in progress	108,587	—	108,587	93,393	—	(200,392)	—	1,588
Right-of-use assets (Real estate)	—	52,619	52,619	24,106	(1,931)	—	(2)	74,792
Right-of-use assets (Vehicles)	—	3,829	3,829	1,288	(110)	—	—	5,007
Right-of-use assets (Others)	—	29	29	—	—	—	—	29
Others	172,478	—	172,478	8,015	(15,489)	—	28	165,032
	1,086,960	56,477	1,143,437	146,988	(25,613)	4,337	243	1,269,392
Accumulated depreciation:								
Buildings and structures(*)	178,467	—	178,467	12,783	(852)	1,073	2	191,473
Leasehold improvements	32,501	—	32,501	3,746	—	—	(169)	36,078
Vehicles	809	—	809	14	(246)	—	19	596
Equipment(*)	44,747	—	44,747	2,684	(4,363)	—	280	43,348
Right-of-use assets (Real estate)	—	—	—	30,777	(1,721)	—	3	29,059
Right-of-use assets (Vehicles)	—	—	—	2,107	(110)	—	—	1,997
Right-of-use assets (Others)	—	—	—	13	—	—	—	13
Others	126,450	—	126,450	17,504	(15,016)	—	(345)	128,593
	382,974	—	382,974	69,628	(22,308)	1,073	(210)	431,157
Accumulated impairment losses:								
Land	3,023	—	3,023	—	—	—	—	3,023
Buildings and structures	2,361	—	2,361	—	—	—	—	2,361
	5,384	—	5,384	—	—	—	—	5,384
	₩ 698,602	56,477	755,079	77,360	(3,305)	3,264	453	832,851

(*) The amounts include government grants.

13. Investment Property

Changes in investment property for the years ended December 31, 2020 and 2019 are as follows:

	2020			
	January 1, 2020	Acquisition/ depreciation	Reclassification	December 31, 2020
Acquisition cost:				
Land	₩ 49,913	—	7,865	57,778
Buildings and structures	40,474	—	15,615	56,089
	90,387	—	23,480	113,867
Accumulated depreciation:				
Buildings and structures	21,003	1,381	7,443	29,827
Accumulated impairment losses:				
Land	1,197	—	—	1,197
Buildings and structures	1,778	—	—	1,778
	2,975	—	—	2,975
	₩ 66,409	(1,381)	16,037	81,065

	2019			
	January 1, 2019	Acquisition/ depreciation	Reclassification	December 31, 2019
Acquisition cost:				
Land	₩ 52,922	—	(3,009)	49,913
Buildings and structures	41,802	—	(1,328)	40,474
	94,724	—	(4,337)	90,387
Accumulated depreciation:				
Buildings and structures	20,630	1,446	(1,073)	21,003
Accumulated impairment losses:				
Land	1,197	—	—	1,197
Buildings and structures	1,778	—	—	1,778
	2,975	—	—	2,975
	₩ 71,119	(1,446)	(3,264)	66,409

The fair value of the Bank's investment property, as determined based on valuation by an independent appraiser, amounts to ₩96,959 million and ₩75,498 million as of December 31, 2020 and 2019, respectively. Additionally, fair value of investment in property is classified as level 3 according to the fair value hierarchy in Note 45.

14. Intangible Assets

Changes in intangible assets for the years ended December 31, 2020 and 2019 are as follows:

	2020					
	January 1, 2020	Acquisition	Disposal	Amortization	Foreign exchange differences	December 31, 2020
Development expense	₩ 194,680	4,893	—	(44,213)	119	155,479
Equipment usage right	553	—	—	(46)	(25)	482
Other deposits provided	10,984	1,728	(764)	—	(8)	11,940
Others	24,712	5,326	—	(9,718)	196	20,516
	₩ 230,929	11,947	(764)	(53,977)	282	188,417

	2019					
	January 1, 2019	Acquisition	Disposal	Amortization	Foreign exchange differences	December 31, 2019
Development expense	₩ 150,600	64,702	—	(20,622)	—	194,680
Equipment usage right	593	—	—	(57)	17	553
Other deposits provided	11,435	—	(460)	—	9	10,984
Others	11,258	20,699	—	(7,256)	11	24,712
	₩ 173,886	85,401	(460)	(27,935)	37	230,929

15. Other Assets

Other assets as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Accounts receivable	₩ 2,662,879	2,719,266
Unsettled domestic exchange receivables	1,313,958	1,623,482
Accrued income	343,901	405,113
Guarantee deposits	193,003	173,489
Financial guarantee asset	22,982	30,078
Prepaid expenses	14,121	12,429
Advance payments	7,953	8,386
Others	182,484	29,689
	4,741,281	5,001,932
Allowance for credit losses	(79,474)	(219,960)
Present value discount	(1,522)	(1,921)
	₩ 4,660,285	4,780,051

The carrying amounts of financial assets included in other assets above amounted to ₩4,463,726 million and ₩4,735,372 million as of December 31, 2020 and 2019, respectively, and their fair value amounted to ₩4,461,117 million and ₩4,736,042 million as of December 31, 2020 and 2019, respectively.

16. Assets Held for Sale

Assets held for sale as of December 31, 2020 and 2019 are as follows:

	2020			
	Acquisition cost	Fair value less costs to sell	Carrying amount	Impairment loss
Assets held for sale:				
Investments in subsidiaries(*1)	₩ 2,244,664	1,629,479	1,629,479	25,926
Investments in associates(*2)	78,278	78,278	78,278	—
Property and equipment	5,590	5,590	5,590	—
	₩ 2,328,532	1,713,347	1,713,347	25,926

	2019			
	Acquisition cost	Fair value less costs to sell	Carrying amount	Impairment loss
Assets held for sale:				
Investments in subsidiaries and associates(*3)	₩ 2,244,664	1,655,406	1,655,406	5,914

(*1) For attracting investment in Daewoo Shipbuilding & Marine Engineering Co., Ltd. ("Daewoo Shipbuilding & Marine Engineering"), the Bank's subsidiary, the Bank and Hyundai Heavy Industries Co., Ltd. ("Hyundai Heavy Industries") made the basic agreement on January 31, 2019 and the contract on investment on March 8, 2019. According to the contract, Hyundai Heavy Industries will make shipbuilding segment, special ship segment, industrial plant segment and engine & machinery segment into each new company and surviving company, Korea Shipbuilding & Offshore Engineering Co., Ltd. ("Korea Shipbuilding & Offshore Engineering"), into holding company defined in the Monopoly Regulation and Fair Trade Act. The Bank will invest the common shares of Daewoo Shipbuilding & Marine Engineering into the common shares and redeemable convertible preference shares of Korea Shipbuilding & Offshore Engineering. Also, Korea Shipbuilding & Offshore Engineering will finance new common shares of Daewoo Shipbuilding & Marine Engineering and be obliged to fund Daewoo Shipbuilding & Marine Engineering.

The Bank made the adjusted contract on investment with Korea Shipbuilding & Offshore Engineering Co., Ltd. on March 6, 2020, reflecting some adjustments to the previous contract on investment made between the Bank and Hyundai Heavy Industries on January 22, 2021.

The contract will be completed after the satisfaction of the contract's precondition including governmental permission of different countries.

(*2) The Bank picked Dongbu-led consortium as the preferred bidder for Hanjin Heavy Industries & Construction Co., LTD. on December 22, 2020 and the relevant investments in associates were reclassified as assets held for sale.

(*3) ₩583,344 million of accumulated impairment losses was included upon classified as assets held for sale.

17. Financial Liabilities Measured at FVTPL

(1) Financial liabilities designated at fair value through profit or loss as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Debentures	₩ 1,510,793	2,465,541
Deposits	184,164	—
	₩ 1,694,957	2,465,541

Changes in fair value of structured debentures and deposits which hedge accounting are applied, are recognized in profit or loss, but structured debentures with no hedge accounting applied to, are measured at amortized costs. Therefore, such structured debentures and deposits, not applied to hedge accounting, have been designated at FVTPL to eliminate mismatch in measurements of accounting profit and loss.

(2) The difference between the carrying amount and contractual cash flow amount of financial liabilities designated at fair value through profit or loss as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Carrying amount	₩ 1,694,957	2,465,541
Contractual cash flow amounts	1,580,800	2,323,560
Difference	₩ 114,157	141,981

18. Deposits

Deposits as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		December 31, 2019	
	Amortized cost	Fair value	Amortized cost	Fair value
Deposits in Korean won:				
Demand deposits	₩ 109,570	109,570	111,588	111,588
Time and savings deposits	37,097,869	37,110,866	26,977,874	26,983,467
Certificates of deposit	467,329	467,342	188,375	188,310
	37,674,768	37,687,778	27,277,837	27,283,365
Deposits in foreign currencies:				
Demand deposits	1,534,717	1,534,717	1,583,184	1,583,184
Time and savings deposits	2,775,150	2,774,425	2,202,739	2,202,737
Certificates of deposit	3,289,651	3,271,530	2,839,700	2,836,162
	7,599,518	7,580,672	6,625,623	6,622,083
Off-shore deposits in foreign currencies:				
Demand deposits	605,133	605,133	760,492	760,492
	₩ 45,879,419	45,873,583	34,663,952	34,665,940

19. Borrowings

(1) Borrowings as of December 31, 2020 and 2019 are as follows:

	December 31, 2020			
	Minimum interest rate (%)	Maximum interest rate (%)	Amortized cost	Fair value
Borrowings in Korean won	—	3.15	₩ 4,216,659	4,210,221
Borrowings in foreign currencies	—	3.86	9,996,208	9,988,337
Off-shore borrowings in foreign currencies	—	2.50	1,790,665	1,791,294
Others	0.01	2.55	2,884,139	2,884,301
			18,887,671	18,874,153
Deferred borrowing costs			(60)	
			₩ 18,887,611	

	December 31, 2019			
	Minimum interest rate (%)	Maximum interest rate (%)	Amortized cost	Fair value
Borrowings in Korean won	—	3.28	₩ 3,824,699	3,816,554
Borrowings in foreign currencies	—	5.49	12,094,102	12,074,960
Off-shore borrowings in foreign currencies	1.79	4.32	1,713,683	1,707,303
Others	0.01	3.66	2,538,134	2,537,824
			20,170,618	20,136,641
Deferred borrowing costs			(105)	
			₩ 20,170,513	

19. Borrowings, Continued

(2) Borrowings in Korean won before adjusting for gains and losses on deferred borrowing costs as of December 31, 2020 and 2019 are as follows:

Lender	Classification	Annual interest rate (%)	December 31, 2020	December 31, 2019
Ministry of Strategy and Finance	Borrowings from government fund (*1)	0.37 ~ 0.87	₩ 125,101	154,667
Industrial Bank of Korea	Borrowings from IT industry promotion fund	1.00	—	190
Small & Medium Business Corp.	Borrowings from small and medium enterprise promotion fund	0.55 ~ 2.76	64,892	73,709
Ministry of Culture and Tourism	Borrowings from tourism promotion fund	0.50 ~ 2.00	2,934,681	2,578,317
Korea Energy Management Corporation	Borrowings from fund for rational use of energy	0.25 ~ 2.80	295,088	387,943
Local governments	Borrowings from local small and medium enterprise promotion fund	0.00 ~ 2.95	37,198	47,834
The Bank of Korea	Borrowings from Bank of Korea	0.25 ~ 0.75	373,881	224,356
Others	Borrowings from petroleum enterprise fund and others	0.00 ~ 3.15	385,818	357,683
			₩ 4,216,659	3,824,699

(*1) Borrowings from government fund are subordinated borrowings.

19. Borrowings, Continued

(3) Borrowings and off-shore borrowings in foreign currencies before adjusting for gains and losses on deferred borrowing costs as of December 31, 2020 and 2019 are as follows:

Lender	Classification	Annual interest rate (%)	December 31, 2020	December 31, 2019
Mizuho and others	Bank loans from foreign funds	3M Libor + 0.20 ~ 3M Libor + 0.78	₩ 435,200	694,680
Ministry of Strategy and Finance	Exchange equalization fund borrowings in foreign currencies	3M Libor + 0.22 ~ 3M Libor + 0.74	183,360	653,613
Central Bank of the Republic Uzbekistan and others	Off-shore short term borrowings	0.25 ~ 2.50	1,487,973	1,487,621
HSBC and others	Off-shore long term borrowings	3M Libor + 0.36 ~ 3M Libor + 0.50	302,692	226,062
Others	Short-term borrowings in foreign currencies	0.04 ~ 3.86	8,567,852	9,465,368
	Long term borrowings in foreign currencies	0.09 ~ 2.49	809,796	1,280,441
			₩ 11,786,873	13,807,785

20. Debentures

Debentures as of December 31, 2020 and 2019 are as follows:

	December 31, 2020			
	Minimum interest rate (%)	Maximum interest rate (%)	Amortized cost	Fair value
Debentures in Korean won:				
Debentures	0.55	6.60	₩ 107,480,364	108,542,792
Discount on debentures			(57,255)	
Valuation adjustment for fair value hedges			49,070	
			107,472,179	
Debentures in foreign currencies:				
Debentures	—	6.90	15,799,118	16,883,195
Discount on debentures			(31,438)	
Premium on debentures			1,677	
Valuation adjustment for fair value hedges			452,330	
			16,221,687	
Off-shore debentures:				
Debentures	—	7.00	14,496,508	14,662,046
Discount on debentures			(23,869)	
Premium on debentures			79	
Valuation adjustment for fair value hedges			152,144	
			14,624,862	
			₩ 138,318,728	140,088,033

20. Debentures, Continued

	December 31, 2019			
	Minimum interest rate (%)	Maximum interest rate (%)	Amortized cost	Fair value
Debentures in Korean won:				
Debentures	1.22	6.60	₩ 92,789,345	93,864,631
Discount on debentures			(64,439)	
Premium on debentures			24	
Valuation adjustment for fair value hedges			100,969	
			92,825,899	
Debentures in foreign currencies:				
Debentures	—	6.97	14,872,187	15,765,324
Discount on debentures			(34,587)	
Premium on debentures			221	
Valuation adjustment for fair value hedges			203,466	
			15,041,287	
Off-shore debentures:				
Debentures	—	7.20	12,751,332	12,820,673
Discount on debentures			(23,075)	
Premium on debentures			155	
Valuation adjustment for fair value hedges			27,790	
			12,756,202	
			₩ 120,623,388	122,450,628

21. Defined Benefit Liabilities

The Bank implements a defined benefit retirement pension plan based on employee compensation benefits and service periods. The plan assets are in trusts with Kookmin Bank, Samsung Life Insurance Co., Ltd., etc.

(1) Details of defined benefit liabilities as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Present value of defined benefit liabilities	₩ 415,529	379,728
Fair value of plan assets	(364,983)	(326,587)
	₩ 50,546	53,141

21. Defined Benefit Liabilities, Continued

(2) Changes in defined benefit liabilities for the years ended December 31, 2020 and 2019 are as follows:

	2020		
	Present value of defined benefit obligation	Fair value of plan assets	Defined benefit liabilities
Beginning balance	₩ 379,728	(326,587)	53,141
Current service costs	37,564	—	37,564
Interest expense (income)	8,786	(7,867)	919
Remeasurements of defined benefit liabilities:			
Demographic assumption	3,840	—	3,840
Financial assumption	(1,011)	2,646	1,635
Experience adjustment	(375)	—	(375)
	2,454	2,646	5,100
Payments from the plan	(13,003)	12,825	(178)
Contributions to the plan	—	(46,000)	(46,000)
Ending balance	₩ 415,529	(364,983)	50,546

	2019		
	Present value of defined benefit obligation	Fair value of plan assets	Defined benefit liabilities
Beginning balance	₩ 377,361	(315,210)	62,151
Current service costs	39,747	—	39,747
Interest expense (income)	9,832	(8,572)	1,260
Remeasurements of defined benefit liabilities:			
Demographic assumption	33	—	33
Financial assumption	3,410	3,789	7,199
Experience adjustment	(18,066)	—	(18,066)
	(14,623)	3,789	(10,834)
Payments from the plan	(32,589)	32,407	(182)
Contributions to the plan	—	(39,001)	(39,001)
Ending balance	₩ 379,728	(326,587)	53,141

(3) Fair value of plan assets for each type as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		December 31, 2019	
	Quoted market prices	Unquoted market prices	Quoted market prices	Unquoted market Prices
Due from banks	₩ —	364,983	—	326,587

21. Defined Benefit Liabilities, Continued

(4) Defined benefit costs recognized in profit or loss for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Current service costs	₩ 37,564	39,747
Interest expense, net	919	1,260
	₩ 38,483	41,007

(5) The principal actuarial assumptions used as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Discount rate (%)	2.54	2.44
Future salary increasing rate (%)	6.08	6.00

(6) The present value sensitivity of defined benefit liabilities as changes in principal actuarial assumptions as of December 31, 2020 is as follows:

	Sensitivity	
	1% increase in assumption	1% decrease in assumption
Discount rate	10.16% decrease	12.06% increase
Future salary increasing rate	11.51% increase	9.94% decrease

(7) The weighted average duration of defined benefit liabilities is 12.15 years and 11.82 years as of December 31, 2020 and 2019, respectively. The expected contributions to the plan for the next annual reporting period amount to ₩52,203 million and ₩54,438 million as of December 31, 2020 and 2019, respectively.

22. Provisions

(1) Details of provisions as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Provision for unused commitments	₩ 770,760	742,592
Provision for financial guarantee	77,498	35,892
Provision for payment guarantees	603,648	674,928
Provision for possible losses from lawsuits	441	12,302
Provision for restoration	15,365	15,167
Other provision	47,458	38,983
	₩ 1,515,170	1,519,864

22. Provisions, Continued

(2) Changes in provision for unused commitments for the years ended December 31, 2020 and 2019 are as follows:

	2020			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 428,388	314,204	—	742,592
Transfer to 12-month expected credit loss	287,107	(287,057)	(50)	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired exposures	(15,148)	15,148	—	—
Provision for (reversal of) unused commitments	(196,824)	249,655	50	52,881
Foreign currency translation	(23,590)	(1,123)	—	(24,713)
Ending balance	₩ 479,933	290,827	—	770,760

	2019			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 288,778	180,906	—	469,684
Transfer to 12-month expected credit loss	349,455	(349,455)	—	—
Transfer to lifetime expected credit losses:				
Transfer to non credit-impaired exposures	(3,265)	3,265	—	—
Provision for (reversal of) unused commitments	(214,326)	478,256	—	263,930
Foreign currency translation	7,746	1,232	—	8,978
Ending balance	₩ 428,388	314,204	—	742,592

(3) Changes of financial guarantee provision for the years ended December 31, 2020 and 2019 are as follows:

	2020			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 1,123	23,121	11,648	35,892
Transfer to 12-month expected credit loss	23,874	(1,051)	(22,823)	—
Transfer to lifetime expected credit losses:				—
Transfer to non credit-impaired exposures	(2,240)	2,348	(108)	—
Transfer to credit-impaired exposures	(179)	(49)	228	—
Provision for unused commitments	22,989	1,638	16,979	41,606
Foreign currency translation	—	—	—	—
Ending balance	₩ 45,567	26,007	5,924	77,498

22. Provisions, Continued

	2019			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 1,400	71,546	38,235	111,181
Transfer to 12-month expected credit loss	27	(27)	—	—
Transfer to lifetime expected credit losses:				—
Transfer to non credit-impaired exposures	(7)	7	—	—
Transfer to credit-impaired exposures	(909)	(633)	1,542	—
Provision for (reversal of) unused commitments	602	(48,822)	(28,129)	(76,349)
Foreign currency translation	10	1,050	—	1,060
Ending balance	₩ 1,123	23,121	11,648	35,892

(4) Changes in provision for payment guarantees for the years ended December 31, 2020 and 2019 are as follows:

	2020			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 170,320	167,939	336,669	674,928
Transfer to 12-month expected credit loss	44,036	(44,036)	—	—
Transfer to lifetime expected credit losses:				—
Transfer to non credit-impaired exposures	(9,487)	9,487	—	—
Transfer to credit-impaired exposures	(5,988)	—	5,988	—
Provision for (reversal of) unused commitments	(15,616)	20,642	(80,956)	(75,930)
Foreign currency translation	698	1,614	2,338	4,650
Ending balance	₩ 183,963	155,646	264,039	603,648

	2019			
		Lifetime expected credit losses		
	12-month expected credit loss	Non credit-impaired	Credit-impaired	Total
Beginning balance	₩ 292,946	247,521	247,298	787,765
Transfer to 12-month expected credit loss	41,125	(41,119)	(6)	—
Transfer to lifetime expected credit losses:				—
Transfer to non credit-impaired exposures	(59,838)	59,838	—	—
Transfer to credit-impaired exposures	(181,313)	(10,120)	191,433	—
Provision for (reversal of) unused commitments	74,589	(96,983)	(118,436)	(140,830)
Foreign currency translation	2,811	8,802	16,380	27,993
Ending balance	₩ 170,320	167,939	336,669	674,928

22. Provisions, Continued

(5) Changes of lawsuit provision and other provision for the years ended December 31, 2020 and 2019 are as follows:

	2020		
	Lawsuit provision	Provision for restoration	Other provision
Beginning balance	₩ 12,302	15,167	38,983
Increase (reversal) of provision	441	(839)	8,475
Provision used and others	(12,302)	1,037	—
Ending balance	₩ 441	15,365	47,458

	2019		
	Lawsuit provision	Provision for restoration	Other provision
Beginning balance	₩ 12,302	14,013	7,786
Increase (reversal) of provision	—	1,154	31,250
Provision used and others	—	—	(53)
Ending balance	₩ 12,302	15,167	38,983

(6) Provision for payment guarantees and financial guarantee provision

Confirmed acceptances and guarantees, unconfirmed acceptances and guarantees and bills endorsed are not recognized on the statement of financial position, but are disclosed as off-statement of financial position items in the notes to the financial statements. The Bank provides a provision for such off-statement of financial position items, applying a Credit Conversion Factor ("CCF") and provision rates under the Bank's expected credit loss model, and records the provision as a reserve for expected credit losses on acceptances and guarantees.

In the case of financial guarantee contracts, when the amount calculated using the same method as above is greater than the initial amount less amortization of fees recognized, the difference is recorded as a financial guarantee provision.

(7) Provision for unused commitments

The Bank records a provision for a certain portion of unused credit lines which is calculated using a CCF as provision for unused commitments applying provision rates under the Bank's expected credit loss model.

(8) Provision for possible losses from lawsuits

As of December 31, 2020, the Bank is involved in 21 lawsuits as a plaintiff and 38 lawsuits as a defendant. The aggregate amounts of claims as a plaintiff and a defendant amounted to ₩191,672 million and ₩228,294 million, respectively. The Bank provided a provision against contingent loss from pending lawsuits as of December 31, 2020 and additional losses may be incurred depending on the result of pending lawsuits.

22. Provisions, Continued

Major lawsuits in progress as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		
	Contents	**Amounts**	**Status of lawsuit**
Plaintiff:			
Korea Trade Insurance Corporation and one other	Claim for guarantee insurance	₩136,538	1st trial ruled against the Bank; 2nd trial in progress
KAMCO 1st JV Securitization Specialty Co., Ltd.	Transfer of claim	8,792	1st trial in progress
Dadae Construction Co., Ltd.	Absence of liens	2,900	1st trial ruled in favor of the Bank; 2nd trial in progress
Korea Technology Finance Corporation	Claim for guarantee	872	1st trial ruled partially in favor of the Bank; 2nd trial in progress
Defendant:			
Shinhan Bank and one other	Claim for damages	58,474	1st trial in progress
Defense Acquisition Program Administration	Claim for guaranteed debt	56,977	1st, 2nd trial ruled partially against the Bank; 3rd trial in progress
Dongbu Corporation	Claim for nullity of table of rehabilitation creditor	33,997	1st trial ruled in favor of the Bank; 2nd trial ruled against the Bank; 3rd trial in progress
Dongbu Corporation	Claim for objection of request (participation to support)	19,658	1st trial in progress
Woori Bank	Claim for disposal of debt	12,470	1st, 2nd trial ruled in favor of the Bank; 3rd trial in progress

22. Provisions, Continued

	December 31, 2019		
	Contents	Amounts	Status of lawsuit
Plaintiff:			
Korea Trade Insurance Corporation and one other	Claim for guarantee insurance	₩136,538	1st trial ruled against the Bank; 2nd trial in progress
Gyeonggi Urban Innovation Corp.	Claim for refund of investments	19,100	1st, 2nd trial ruled partially in favor of the Bank; 3rd trial in progress
KAMCO 1st JV Securitization Specialty Co., Ltd.	Transfer of claim	8,792	1st trial in progress
STX Offshore and shipbuilding Co., Ltd.	Objection for trial for determination of investigation	4,800	1st trial in progress
Korea Land and Housing Corporation	Claim for guaranteed debt	3,533	1st trial ruled against the Bank; 2nd trial ruled partially in favor of the Bank; 3rd trial in progress
Defendant:			
Shinhan Bank and one other	Claim for damages	58,474	1st trial in progress
Defense Acquisition Program Administration	Claim for guaranteed debt	56,977	1st, 2nd trial ruled partially against the Bank; 3rd trial in progress
Dongbu Corporation	Claim for nullity of table of rehabilitation creditor	33,997	1st trial ruled in favor of the Bank; 2nd trial ruled against the Bank; 3rd trial in progress
Dongbu Corporation	Claim for objection of request (participation to support)	19,658	1st trial in progress
Woori Bank	Claim for disposal of debt	12,470	1st trial ruled in favor of the Bank; 2nd trial in progress

(9) Other provision

The Bank recognised other provision as a reserve for other miscellaneous purpose.

23. Other Liabilities

(1) Other liabilities as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Accounts payable	₩ 2,623,207	2,524,985
Lease liabilities	75,523	43,362
Accrued expense	1,657,438	2,003,532
Advance received	920	42
Unearned income	45,344	48,484
Deposits withholding tax	22,019	24,414
Guarantee money received	720,932	557,385
Foreign exchanges payable	307,935	80,621
Domestic exchanges payable	587,194	363,546
Borrowing from trust accounts	973,885	1,535,048
Financial guarantee liability	25,347	31,426
Others	64,153	72,262
	7,103,897	7,285,107
Present value discount	(34,891)	(2,484)
	₩ 7,069,006	7,282,623

The carrying amount of financial liabilities included in other liabilities above amounted to ₩6,896,581 million and ₩7,089,686 million as of December 31, 2020 and 2019, respectively, and their fair value amounted to ₩6,889,375 million and ₩7,085,427 million as of December 31, 2020 and 2019, respectively.

(2) Details of lease liabilities as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		
	Face value	Discount	Carrying amounts
Real estate	₩ 71,207	(31,964)	39,243
Vehicles	3,923	(639)	3,284
Others	393	(197)	196
	₩ 75,523	(32,800)	42,723

	December 31, 2019		
	Face value	Discount	Carrying amounts
Real estate	₩ 40,381	(2,169)	38,212
Vehicles	2,964	(56)	2,908
Others	17	(1)	16
	₩ 43,362	(2,226)	41,136

23. Other Liabilities, Continued

(3) The amount related to lease recognized in the separate statement of comprehensive income for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Depreciation of right-of-use assets	₩	
Real estate	29,153	30,777
Vehicles	2,033	2,107
Others	13	13
	31,199	32,897
Interest expenses on the lease liabilities	818	746
Expense relating to short-term leases	66	121
Expense relating to leases of low-value assets	312	292
	₩ 32,395	34,056

(4) Cash flows used in lease liabilities for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Decrease in lease liabilities	₩ 25,329	23,737
Lease payments relating to short-term leases	66	121
Lease payments relating to leases of low-value assets	312	292
	₩ 25,707	24,150

(5) Maturity analysis of undiscounted lease payments relating to lease liabilities as of December 31, 2020 is as follows:

	December 31, 2020				
	Within 3 months	3 months ~ 1 year	1 year ~ 5 years	Over 5 years	Total
Lease payments	₩ 10,659	26,225	38,639	—	75,523

	December 31, 2019				
	Within 3 months	3 months ~ 1 year	1 year ~ 5 years	Over 5 years	Total
Lease payments	₩ 5,529	13,538	24,295	—	43,362

24. Equity

(1) Issued capital

The Bank is authorized to issue up to 6,000 million shares of common stock and has 4,153,145,768 shares issued and 3,732,619,768 shares issued as of December 31, 2020 and 2019, respectively, and outstanding with a total par value (₩5,000 of par value per share) of ₩20,765,729 million and ₩18,663,099 million as of December 31, 2020 and 2019, respectively.

24. Equity, Continued

(2) Capital surplus

Capital surplus as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Paid-in capital in excess of par value	₩ 49,530	59,636
Surplus from capital reduction(*1)	44,373	44,373
Other capital surplus(*2)	2,390,495	2,390,495
	₩ 2,484,398	2,494,504

(*1) The Bank reduced ₩5,178,600 million of its issued capital in 1998 and 2000 to offset its accumulated deficit amounting to ₩5,134,227 million. As the result of the capital reduction, ₩44,373 million of surplus exceeding accumulated deficit was recorded in capital surplus in equity.

(*2) The difference in the amount of shares issued and the carrying value of net asset acquired occurring from the merger of the Bank with KDB Financial Group Inc. and Korea Finance Corporation are recognized as other capital surplus.

(3) Accumulated other comprehensive income

(i) Accumulated other comprehensive income as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Net gain (loss) on securities measured at FVOCI		
Valuation gain (loss) on securities measured at FVOCI (before tax)	₩ 2,787,519	(210,918)
Loss allowance for securities measured at FVOCI (before tax)	81,278	73,806
Income tax effect	(788,919)	37,706
	2,079,878	(99,406)
Exchange differences on translation of foreign operations:		
Exchange differences on translation of foreign operations (before tax)	(60,912)	(7,158)
Income tax effect	—	—
	(60,912)	(7,158)
Valuation gain (loss) on cash flow hedge:		
Valuation gain (loss) on cash flow hedge (before tax)	47	(403)
Income tax effect	(13)	111
	34	(292)
Net gain on hedges of net investments in foreign operations:		
Net gain on hedges of net investments in foreign operations (before tax)	48,975	5,538
Income tax effect	(13,468)	(1,523)
	35,507	4,015
Remeasurements of defined benefit liabilities:		
Remeasurements of defined benefit liabilities (before tax)	21,562	26,662
Income tax effect	(5,928)	(7,331)
	15,634	19,331
Fair value changes on financial liabilities designated at fair value due to credit risk:		
Valuation loss on financial liabilities designated at fair value due to credit risk (before tax)	(7,959)	(6,320)
Income tax effect	2,189	1,738
	(5,770)	(4,582)
	₩ 2,064,371	(88,092)

24. Equity, Continued

(ii) Changes in accumulated other comprehensive income for the years ended December 31, 2020 and 2019 are as follows:

	2020			
	January 1, 2020	Increase (Decrease)	Tax Effect	December 31, 2020
Gain on Securities Measured at FVOCI	₩ (99,406)	3,005,909	(826,625)	2,079,878
Exchange differences on translation of foreign operations	(7,158)	(53,754)	—	(60,912)
Valuation gain (loss) on cash flow hedge	(292)	450	(124)	34
Net gain on hedges of net investments in foreign operations	4,015	43,437	(11,945)	35,507
Remeasurements of defined benefit liabilities	19,331	(5,100)	1,403	15,634
Valuation loss on financial liabilities designated at fair value due to credit risk	(4,582)	(1,639)	451	(5,770)
	₩ (88,092)	2,989,303	(836,840)	2,064,371

	2019			
	January 1, 2019	Increase (Decrease)	Tax Effect	December 31, 2019
Gain on Securities Measured at FVOCI	₩ (12,465)	(119,919)	32,978	(99,406)
Exchange differences on translation of foreign operations	(33,017)	25,859	—	(7,158)
Valuation loss on cash flow hedge	(1,870)	2,176	(598)	(292)
Net gain on hedges of net investments in foreign operations	—	5,538	(1,523)	4,015
Remeasurements of defined benefit liabilities	11,476	10,834	(2,979)	19,331
Valuation gain (loss) on financial liabilities designated at fair value due to credit risk	3,178	(10,704)	2,944	(4,582)
	₩ (32,698)	(86,216)	30,822	(88,092)

(4) Retained earnings

In accordance with the *Korea Development Bank Act,* the Bank is required to appropriate at least 40% of net income as a legal reserve. This reserve can be transferred to paid-in capital or offset an accumulated deficit.

In accordance with the *Korea Development Bank Act,* the Bank offsets an accumulated deficit with reserves. If the reserve is insufficient to offset the accumulated deficit, the Korean government is responsible for the deficit.

24. Equity, Continued

(i) Retained earnings as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Legal reserve	₩ 1,356,142	1,177,851
Voluntary reserve		
Regulatory reserve for loan losses	1,146,038	1,227,700
Unappropriated retained earnings	2,565,852	2,327,769
	₩ 5,068,032	4,733,320

(ii) Changes in legal reserve for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Beginning balance	₩ 1,177,851	173,913
Transfer from retained earnings	178,291	1,003,938
Ending balance	₩ 1,356,142	1,177,851

(iii) Changes in unappropriated retained earnings for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Beginning balance	₩ 2,327,769	2,866,706
Transfer from (contribution to) legal reserve	(178,291)	(1,003,938)
Transfer from (contribution to) regulatory reserve for credit losses	81,662	144,330
Dividends	(111,978)	(144,865)
Reclassification of gain or loss on equity securities measured at FVOCI	(40,840)	19,808
Profit for the year	487,530	445,728
Ending balance	₩ 2,565,852	2,327,769

(iv) Statements of appropriation of retained earnings for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
I. Unappropriated retained earnings:		
Unappropriated retained earning carried forward from the prior year	₩ 2,119,162	1,862,233
Gain on disposal of securities measured at FVOCI	(40,840)	19,808
Profit for the year	487,530	445,728
	2,565,852	2,327,769
II. Transfers such as discretionary reserves		
Contribution to regulatory reserve for credit losses	663,153	81,662
	663,153	81,662
II. Appropriation of retained earnings:		
Contribution to legal reserve	195,012	178,291
Dividends (₩50 for 2020 and ₩30 for 2019 per share)	209,638	111,978
	404,650	290,269
III. Unappropriated retained earnings to be carried over to subsequent year	₩ 2,824,355	2,119,162

24. Equity, Continued

(5) Regulatory reserve for credit losses

The Bank is required to provide a regulatory reserve for credit losses in accordance with *Regulations on Supervision of Banking Business 29(1) and (2)*. The details of regulatory reserve for credit losses are as follows:

(i) Regulatory reserve for credit losses as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Beginning balance	₩ 1,146,038	1,227,700
Planned reversal of reserve for credit losses	(663,153)	(81,662)
Ending balance	₩ 482,885	1,146,038

(ii) Required reversal of regulatory reserve for credit losses and profit after adjusting regulatory reserve for loan losses for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Profit for the year	₩ 487,530	445,728
Obligated amount of reversal of regulatory reserve for credit losses	663,153	81,662
Profit after adjusting regulatory reserve for credit losses	₩ 1,150,683	527,390
Earnings per share after adjusting regulatory reserve for credit losses (in won)	₩ 292	142

25. Net Interest Income

Net interest income for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Interest income:		
Due from banks	₩ 57,984	104,586
Securities measured at FVTPL	26,615	58,860
Securities measured at FVOCI	394,410	371,777
Loans measured at amortized cost	14,394	40,903
Loans measured at FVTPL	21,939	17,291
Loans measured at amortized cost	3,926,212	4,507,827
	4,441,554	5,101,244
Interest expense:		
Financial liabilities measured at FVTPL	(79,318)	(90,883)
Deposits	(497,910)	(606,671)
Borrowings	(266,728)	(442,679)
Debentures	(2,318,025)	(2,898,689)
	(3,161,981)	(4,038,922)
	₩ 1,279,573	1,062,322

26. Net Fees and Commission Income

Net fees and commission income for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Fees and commission income:		
Loan commissions	₩ 128,701	145,612
Underwriting and investment consulting commissions	101,889	125,653
Brokerage and agency commissions	7,357	5,873
Trust and retirement pension plan commissions	32,961	31,660
Fees on asset management	1,725	3,370
Other fees	95,143	103,074
	367,776	415,242
Fees and commission expenses:		
Brokerage and agency fees	(9,010)	(11,014)
Other fees	(25,662)	(26,028)
	(34,672)	(37,042)
	₩ 333,104	378,200

27. Dividend Income

Dividend income for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Securities measured at FVTPL	₩ 178,905	277,726
Securities measured at FVOCI	122,994	110,137
Investments in subsidiaries and associates	368,696	290,229
	₩ 670,595	678,092

28. Net Gain (Loss) on Securities Measured at FVTPL

Net gain (loss) related to securities measured at FVTPL for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Gains on securities measured at FVTPL:		
Gains on sale	₩ 86,491	253,588
Gains on valuation	139,442	127,147
	225,933	380,735
Losses on securities measured at FVTPL:		
Losses on sale	(44,658)	(29,888)
Losses on valuation	(126,469)	(175,585)
Purchase related expense	(49)	(94)
	(171,176)	(205,567)
	₩ 54,757	175,168

29. Net Gain (Loss) on Financial Liabilities Measured at FVTPL

Net gain (loss) related to financial liabilities designated at fair value through profit or loss for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Gains on financial liabilities measured at FVTPL:		
Gains on redemption	₩ 477	799
Gains on valuation	44,720	15,927
	45,197	16,726
Losses on financial liabilities measured at FVTPL:		
Losses on redemption	(14,230)	(2,986)
Losses on valuation	(1,782)	(21,206)
	(16,012)	(24,192)
	₩ 29,185	(7,466)

30. Net Gain on Securities Measured at FVOCI

Net gain related to securities measured at FVOCI for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Gains on securities measured at FVTPL:		
Gains on sale	₩ 102,432	106,220
Reversal of impairment losses	—	2,085
	102,432	108,305
Losses on securities measured at FVTPL:		
Losses on sale	(13,783)	(21,626)
Impairment losses	(8,537)	—
	(22,320)	(21,626)
	₩ 80,112	86,679

31. Net Gain (Loss) on Derivatives

Net gain (loss) on derivatives for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Net gain (loss) on trading purpose derivatives:		
Gains on trading purpose derivatives:		
Interest	₩ 2,205,066	2,348,820
Currency	13,435,618	9,712,251
Stock	13,372	21,844
Embedded derivatives	—	32
Gains on adjustment of derivatives	13,493	1,498
	15,667,549	12,084,445
Losses on trading purpose derivatives:		
Interest	(2,274,718)	(2,221,935)
Currency	(13,551,073)	(9,422,188)
Stock	(18,329)	(150,531)
Losses on adjustment of derivatives	(5,953)	(28,811)
	(15,850,073)	(11,823,465)
	(182,524)	260,980
Net gain (loss) on hedging purpose derivatives:		
Gains on hedging purpose derivatives:		
Interest	449,971	550,056
Currency	666,696	239,540
Gains on adjustment of derivatives	23	22
	1,116,690	789,618
Losses on hedging purpose derivatives:		
Interest	(107,767)	(63,906)
Currency	(388,944)	(334,901)
Losses on adjustment of derivatives	(746)	(589)
	(497,457)	(399,396)
	619,233	390,222
Net gain (loss) on fair value hedged items:		
Gains on fair value hedged items:		
Gains on valuation	294,219	105,168
Gains on redemption	356,886	155,601
	651,105	260,769
Losses on fair value hedged items:		
Losses on valuation	(598,107)	(741,191)
Losses on redemption	(92,557)	(179,124)
	(690,664)	(920,315)
	(39,559)	(659,546)
	₩ 397,150	(8,344)

31. Net Gain (Loss) on Derivatives, Continued

Related with cash flow hedge, the Bank recognized ₩24 million of loss and ₩2 million of gain in the statements of comprehensive income as the ineffective portion for the years ended December 31, 2020 and 2019, respectively.

32. Net Foreign Currency Transaction Gain (Loss)

Net foreign currency transaction gain (loss) for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Net gain (loss) on foreign exchange transactions:		
Gains on foreign exchange transactions	₩ 604,366	487,002
Losses on foreign exchange transactions	(617,136)	(483,781)
	(12,770)	3,221
Net gain (loss) on foreign currency translations:		
Gains on foreign currency translations	8,385,283	4,005,597
Losses on foreign currency translations	(8,544,881)	(4,032,562)
	(159,598)	(26,965)
	₩ (172,368)	(23,744)

33. Other Operating Expense, net

Other operating income and expense for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Other operating income:		
Gains on sale of loans	₩ 15,820	78,523
Gains on disposal of loans measured at FVTPL	4,568	23,456
Gains on valuation of loans measured at FVTPL	676,776	59,719
Gains on disposal of investments in subsidiaries and associates	14,095	3,350
Reversal of provisions	1,015	—
Others	18,149	11,107
	730,423	176,155
Other operating expenses:		
Losses on sale of loans	(125,539)	(178,048)
Losses on disposal of loans measured at FVTPL	(29,155)	(27,231)
Losses on valuation of loans measured at FVTPL	(27,509)	(16,798)
Losses on disposal of investments in subsidiaries and associates	(875)	(544)
Increase in provisions	(9,092)	(31,508)
Insurance expenses	(66,988)	(49,618)
Credit guarantee fund salary	(178,196)	(146,440)
Educational taxes	(32,231)	(30,223)
Foreign security contributions	(8,928)	(10,888)
Others	(24,863)	(26,556)
	(503,376)	(517,854)
	₩ 227,047	(341,699)

34. Provision for Credit Losses

Provision for credit losses for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Provision for loan loss allowance	₩ 1,177,027	59,805
Provision for (reversal of) other assets	19,722	(22,915)
Provision for unused commitments	52,881	263,930
Provision for (reversal of) financial guarantee provision	41,606	(76,349)
Reversal of payment guarantees	(75,930)	(140,830)
	₩ 1,215,306	83,641

35. General and Administrative Expenses

General and administrative expenses for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Payroll costs:		
Short-term employee benefits	₩ 376,582	363,231
Defined benefit costs	38,483	41,007
Defined contribution costs	7,393	6,829
	422,458	411,067
Depreciation and amortization:		
Depreciation of property and equipment	69,403	69,628
Amortization of intangible assets	53,977	27,935
	123,380	97,563
Other:		
Employee welfare benefits	32,203	31,123
Rent expenses	6,388	7,450
Taxes and dues	32,595	29,352
Advertising expenses	16,752	18,010
Electronic data processing expenses	72,214	68,016
Fees and charges	36,029	30,748
Others	47,318	53,601
	243,499	238,300
	₩ 789,337	746,930

36. Other Non-Operating Income and Expense

Other non-operating income and expense for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Other non-operating income:		
Gain on disposal of property and equipment	₩ 1,254	1,596
Rental income on investment property	2,216	1,862
Others	9,005	7,726
	12,475	11,184
Other non-operating expense:		
Impairment loss on assets held for sale	(25,926)	(5,914)
Losses on disposal of property and equipment	(205)	(5)
Depreciation of investment property	(1,381)	(1,446)
Donations	(15,142)	(18,458)
Others	(3,981)	(9,053)
	(46,635)	(34,876)
	₩ (34,160)	(23,692)

37. Income Tax Expense

(1) Income tax expense for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Current income tax(*)	₩ 166,947	289,822
Changes in deferred income taxes on temporary differences	787,732	(156,803)
Deferred income tax recognized directly to equity		
Other comprehensive income	(836,840)	30,822
Retained earnings	15,491	(7,514)
Income tax expense	₩ 133,330	156,327

(*) Includes changes such as those that arise from final tax returns.

(2) Profit before income taxes and income tax expense for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Profit before income taxes	₩ 620,860	602,055
Income taxes calculated using enacted tax rates	170,736	165,565
Adjustments:		
Non-deductible losses and tax-free gains	(12,508)	(13,197)
Non-recognition effect of deferred income taxes	(21,653)	(3,590)
Net adjustments for prior years	(9,423)	(7,298)
Others	6,178	14,847
	(37,406)	(9,238)
Income tax expense	₩ 133,330	156,327
Effective tax rate (%)	21.48	25.97

37. Income Tax Expense, Continued

(3) Changes in temporary differences and deferred tax assets (liabilities) for the years ended December 31, 2020 and 2019 are as follows:

	2020				
	January 1, 2020(*)	Decrease	Increase	December 31, 2020	Deferred tax assets (liabilities)
Derivatives	₩ (777,801)	(777,801)	(1,478,054)	(1,478,054)	(406,465)
Investments in subsidiaries and associates	(7,130,082)	3,970	265,418	(6,868,634)	(2,196,801)
Losses on fair value hedged items valuation	268,983	268,983	680,195	680,195	187,054
Losses on foreign exchange translation for hedged liabilities	45,211	45,211	73,159	73,159	20,119
Impairment losses on debt securities	65,933	—	—	65,933	18,132
Impairment losses on equity securities	65,372	7,669	2,647	60,350	16,596
Defined benefit obligation	349,443	12,987	48,787	385,243	105,942
Plan assets	(306,175)	(12,987)	(12,987)	(306,175)	(84,198)
Financial assets held for trading	(58,070)	2,742	17,178	(43,634)	(11,999)
Available-for-sale financial assets	(145,452)	912	—	(146,364)	185
Write-off	3,135,237	72,950	381,290	3,443,577	791,472
Provisions	994,450	1,501,151	1,429,831	923,130	253,861
Property impairment losses	6,630	173	—	6,457	1,776
Dividends Receivable	—	—	8,365	8,365	2,300
Loan origination fees	(7,293)	(7,293)	(9,063)	(9,063)	(2,492)
Gains on sales of loans	(63,554)	(318)	(75)	(63,311)	(17,411)
Others	2,086,454	3,802,202	620,561	(1,095,187)	(397,171)
	(1,470,714)	4,920,551	2,027,252	(4,364,013)	(1,719,100)
Temporary differences from unrecognized deferred tax assets and liabilities:					
Investments in subsidiaries and associates, etc.	1,912,607	(25,887)	—	1,886,720	—
	₩ 441,893	4,894,664	2,027,252	(2,477,293)	(1,719,100)

(*) Temporary differences as of January 1, 2020 reflected previous year's additional tax adjustment after the financial statements were issued.

37. Income Tax Expense, Continued

	2019				
	January 1, 2019	Decrease	Increase	December 31, 2019	Deferred tax assets (liabilities)
Derivatives	₩ (304,011)	(304,011)	(773,504)	(773,504)	(212,714)
Investments in subsidiaries and associates	(7,669,849)	7,837	548,804	(7,128,882)	(2,278,811)
Losses (gains) on fair value hedged items valuation	(429,827)	(429,827)	268,983	268,983	73,970
Losses on foreign exchange translation for hedged liabilities	264,036	264,036	45,211	45,211	12,433
Impairment losses on debt securities	65,933	—	—	65,933	18,132
Impairment losses on equity securities	64,528	(1,271)	—	65,799	18,095
Defined benefit obligation	346,904	32,407	49,579	364,076	100,121
Plan assets	(309,822)	(32,407)	(49,172)	(326,587)	(89,811)
Financial assets held for trading	60,931	121,743	2,742	(58,070)	(15,969)
Available-for-sale financial assets	(157,234)	(11,782)	—	(145,452)	436
Write-off	3,020,839	100,875	215,274	3,135,238	687,997
Provisions	783,999	1,278,398	1,488,848	994,449	273,473
Property impairment losses	6,803	173	—	6,630	1,823
Loan origination fees	(15,814)	(15,814)	(7,293)	(7,293)	(2,006)
Gains on sales of loans	(52,812)	10,478	(264)	(63,554)	(17,477)
Others	2,432,162	1,191,885	842,559	2,082,836	498,940
	(1,893,234)	2,212,720	2,631,767	(1,474,187)	(931,368)
Temporary differences from unrecognized deferred tax assets and liabilities:					
Investments in subsidiaries and associates, etc.	1,957,997	45,390	—	1,912,607	—
	₩ 64,763	2,258,110	2,631,767	438,420	(931,368)

37. Income Tax Expense, Continued

(4) Changes in income tax expense recognized directly to equity for the years ended December 31, 2020 and 2019 are as follows:

	2020				
	December 31,2020		January 1, 2020		
	Amounts before tax	Tax effect	Amounts before tax	Tax effect	Changes in tax effect
Net gain (loss) on securities measured at FVOCI	₩ 2,079,878	(788,919)	(99,406)	37,706	(826,625)
Exchange differences on translation of foreign operations	(60,912)	—	(7,158)	—	—
Net gain (loss) on valuation of cash flow hedge	34	(13)	(292)	111	(124)
Net gain on hedges of net investments in foreign operations	35,507	(13,468)	4,015	(1,523)	(11,945)
Remeasurements of defined benefit liabilities	15,634	(5,928)	19,331	(7,331)	1,403
Fair value changes on financial liabilities designated at fair value due to credit risk	(5,770)	2,189	(4,582)	1,738	451
	₩ 2,064,371	(806,139)	(88,092)	30,701	(836,840)

Income tax expense recognized direct to retained earnings amounting to ₩15,491 million is the tax effect of realized loss amounting to ₩56,331 million from disposal of equity securities measured at FVOCI.

	2019				
	December 31, 2019		January 1, 2019		
	Amounts before tax	Tax effect	Amounts before tax	Tax effect	Changes in tax effect
Net gain (loss) on securities measured at FVOCI	₩ (99,406)	37,706	(12,465)	4,728	32,978
Exchange differences on translation of foreign operations	(7,158)	—	(33,017)	—	—
Losses on valuation of cash flow hedge	(292)	111	(1,870)	709	(598)
Net gain on hedges of net investments in foreign operations	4,015	(1,523)	—	—	(1,523)
Remeasurements of defined benefit liabilities	19,331	(7,331)	11,476	(4,352)	(2,979)
Fair value changes on financial liabilities designated at fair value due to credit risk	(4,582)	1,738	3,178	(1,206)	2,944
	₩ (88,092)	30,701	(32,698)	(121)	30,822

Income tax benefit recognized direct to retained earnings amounting to ₩7,514 million is the tax effect of realized income amounting to ₩27,322 million from disposal of equity securities measured at FVOCI.

38. Earnings per Share

(1) Basic earnings per share

The Bank's basic earnings per share for the years ended December 31, 2020 and 2019 are computed as follows:

(i) Basic earnings per share

	2020	2019
Profit attributable to ordinary shareholders of the Bank (A) (in won)	₩ 487,529,927,945	445,728,174,656
Weighted-average number of ordinary shares outstanding (B)	3,938,857,211	3,703,721,138
Basic earnings per share (A/B) (in won)	₩ 124	120

(ii) Weighted-average number of ordinary shares outstanding

	2020		
	Number of ordinary shares	Days	Cumulative shares
Number of ordinary shares outstanding at the beginning of the year (A)	3,732,619,768	366	1,366,138,835,088
Increased paid-in capital (B)	90,100,000	273	24,597,300,000
Increased paid-in capital (C)	330,426,000	154	50,885,604,000
Cumulative shares (D = A+B+C)			1,441,621,739,088
Weighted-average number of ordinary shares outstanding (D/366)			3,938,857,211

	2019		
	Number of ordinary shares	Days	Cumulative shares
Number of ordinary shares outstanding at the beginning of the year (A)	3,621,619,768	365	1,321,891,215,320
Increased paid-in capital (B)	100,000,000	289	28,900,000,000
Increased paid-in capital (C)	11,000,000	97	1,067,000,000
Cumulative shares (D = A+B+C)			1,351,858,215,320
Weighted-average number of ordinary shares outstanding (D/365)			3,703,721,138

(2) Diluted earnings per share

Diluted and basic earnings per share for the years ended December 31, 2020 and 2019 are equal because there is no potential dilutive instrument.

39. Pledged Assets

Assets pledged by the Bank as collateral as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		December 31, 2019	
	Pledged assets	Related liabilities	Pledged assets	Related liabilities
Securities measured at FVOCI(*)	₩ 5,701,903	2,249,385	4,886,371	2,294,640
Securities measured at amortized cost(*)	313,631		1,108,791	
	₩ 6,015,534	2,249,385	5,995,162	2,294,640

(*) Pledged as collateral related to bonds sold under repurchase agreements and borrowings.

40. Guarantees and Commitments

Guarantees and commitments as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Confirmed acceptances and guarantees:		
Acceptances in foreign currency	₩ 408,155	325,218
Guarantees for bond issuance	2,281,329	2,427,525
Guarantees for loans	485,483	355,619
Letter of guarantee	42,965	51,461
Guarantees for on-lending debt	11,127	11,908
Others	3,734,283	4,456,862
	6,963,342	7,628,593
Unconfirmed acceptances and guarantees:		
Letter of credit	1,252,411	1,662,658
Others	1,882,381	1,707,426
	3,134,792	3,370,084
Commitments:		
Commitments on loans	42,787,113	30,936,286
Others	2,075,621	2,100,258
	44,862,734	33,036,544
Bills endorsed:		
With recourse	971	515
	₩ 54,961,839	44,035,736

41. Trust Accounts

(1) Trust accounts as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Accrued trust fee	₩ 8,010	7,037
Deposits	—	665
Borrowings from trust accounts	906,843	1,498,878
Accrued interest on deposits	909	1,612

(2) Transactions with trust accounts for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Trust management fee	₩ 30,356	29,250
Interest expenses on deposits	3	198
Interest expenses of borrowings from trust accounts	8,103	22,491

(3) The carrying amounts of principals guaranteed money trust and principals and interest guaranteed money trust as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Principals guaranteed money trust	₩ 251,006	257,268
Principals and interest guaranteed money trust	238,320	238,097
	₩ 489,326	495,365
Principal of money and property trust	₩ 450,445	456,890
Accrued trust profit	38,881	38,475

42. Related Party Transactions

(1) The Bank's related parties as of December 31, 2020 are as follows:

Classification	Corporate name
Subsidiaries	KDB Capital Corporation, Daewoo Shipbuilding & Marine Engineering Co., Ltd., KDB Infrastructure Investment Asset Management Co., Ltd., KDB Asia Ltd., KDB Ireland Ltd., KDB Bank Europe Ltd., Banco KDB Do Brazil S.A., KDB Bank Uzbekistan, KDB Indonesia, Korea Infrastructure Financing Co. and 7 others, KDB Investment PEF No. 1, KDB Value PEF VII, KDB Consus Value PEF, Components and Materials M&A PEF and 4 others, Principals guaranteed trust accounts of KDB, Principals and interests guaranteed interest trust accounts of KDB, UBest 5th Securitization Specialty Co., Ltd. and 6 others, KIAMCO Road Investment Private Fund Special Asset Trust 2 and 25 others
Associates	Korea Electric Power Co., Ltd., Korea Tourism Organization, KOREA REAL ESTATE BOARD, GM Korea Company, HMM Co., Ltd., Hanjin Heavy Industries & Construction Co., Ltd., HANJIN KAL, Korea Ocean Business Corporation and 76 others, Troika Resources Investment PEF and 96 others, KIP Overseas Expansion Platform Fund and 117 others
Others	Key management personnel

(2) Significant balances with related parties as of December 31, 2020 and 2019 are as follows:

	Account	December 31, 2020	December 31, 2019
Subsidiaries:			
KDB Capital Corporation	Loans	₩ 7,188	36,427
	Allowance for loan losses	(3)	(5)
	Derivative financial assets	293	1,008
	Other assets	7	8
	Deposits	2,762	82
	Derivative financial liabilities	3,756	2,516
	Other liabilities	35,513	528
KDB Infrastructure Investment Asset Management Co., Ltd.	Deposits	17,767	40,038
	Other liabilities	162	338
KDB Ireland Ltd.	Loans	358,393	326,968
	Allowance for loan losses	(94)	(33)
	Derivative financial assets	9,673	5,841
	Other assets	179	685
	Derivative financial liabilities	—	40

42. Related Party Transactions, Continued

	Account	December 31, 2020	December 31, 2019
KDB Bank Europe Ltd.	Cash and due from banks	₩264,697	440,762
	Loans	—	96,813
	Allowance for loan losses	—	(12)
	Derivative financial assets	552	731
	Other assets	47	404
	Derivative financial liabilities	278	—
	Other liabilities	762	—
Banco KDB Do Brazil S.A.	Cash and due from banks	48,960	75,257
	Loans	60,384	115,780
	Allowance for loan losses	(30)	(24)
	Other assets	85	2,074
KDB Indonesia Ltd.	Loans	21,760	—
	Allowance for loan losses	(6)	—
	Other assets	12	—
KDB Asia Ltd.	Cash and due from banks	783,360	567,322
	Loans	261,120	312,606
	Allowance for loan losses	(68)	(24)
	Derivative financial assets	1,051	849
	Other assets	825	1,888
	Deposits	2	2
	Borrowings	10,736	—
	Derivative financial liabilities	370	144
	Other liabilities	23	—
KDB Investment PEF No.1	Loans	732,640	749,207
	Allowance for loan losses	(3,443)	(1,226)
	Derivative financial assets	3,109	—
	Other assets	8,985	9,001
	Allowance of other assets	(35)	(13)
	Deposits	4,553	45,870
	Derivative financial liabilities	585	4,810
	Other liabilities	31	105
	Other provisions	1,003	362
KDB Consus Value PEF	Securities	40,857	40,431
	Derivative financial assets	243	1,477
	Other assets	345	345
	Deposits	104	66
	Derivative financial liabilities	9,923	2,459
	Other liabilities	703	1,057

42. Related Party Transactions, Continued

	Account	December 31, 2020	December 31, 2019
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Loans	₩1,322,265	1,422,406
	Allowance for loan losses	(437,867)	(475,992)
	Derivative financial assets	6,533	105,017
	Other assets	3,406	4,200
	Deposits	593,439	627,963
	Derivative financial liabilities	153,516	5,814
	Other liabilities	238,642	65,790
	Other provisions	769,944	827,258
Corporate Liquidity Assistance Agency Co., Ltd.	Loans	220,000	—
	Allowance for loan losses	(64)	—
	Other assets	4,452	—
	Allowance of other assets	(1)	—
	Deposits	696,350	—
	Other liabilities	90	—
	Other provisions	168	—
Others	Loans	1,032,466	1,157,368
	Allowance for loan losses	(368,449)	(347,970)
	Derivative financial assets	738	8,369
	Other assets	13,142	18,307
	Allowance of other assets	(5,190)	(4,907)
	Deposits	86,364	90,729
	Borrowings	42,527	64,767
	Derivative financial liabilities	25,090	3,960
	Other liabilities	15,675	866
	Other provisions	170,380	177,474
Associates:			
Korea Electric Power Co., Ltd.	Securities	5,779	26,263
	Loans	197,539	138,845
	Allowances for loan losses	(1,778)	(844)
	Derivative financial assets	80,203	10,719
	Other assets	20,631	11,777
	Deposits	135,837	82,202
	Borrowings	53,107	63,680
	Derivative financial liabilities	41,212	96,504
	Other liabilities	10,599	1,773
	Other provisions	10	3

42. Related Party Transactions, Continued

	Account	December 31, 2020	December 31, 2019
KG Dongbu Steel Co., Ltd.	Loans	₩ 614,062	625,249
	Allowances for loan losses	(55,321)	(117,356)
	Other assets	622	369
	Deposits	3,871	—
	Other liabilities	129	415
	Other provisions	15,320	34,592
HMM Co., Ltd.	Securities	3,866,467	694,832
	Loans	1,040,638	513,801
	Allowances for loan losses	(93,017)	(97,777)
	Other assets	7,302	5,308
	Deposits	440,127	371,965
	Other liabilities	2,536	1,965
	Other provisions	8,200	—
Hanjin Heavy Industries & Construction Co., Ltd.	Loans	213,052	217,764
	Other assets	—	522
	Deposits	110,914	88,240
	Other liabilities	1,464	1,802
	Other provisions	128,819	119,882
HANJIN KAL	Securities	20,098	—
	Loans	390,902	—
	Other assets	616	—
Korea Ocean Business Corporation	Loans	15,464	18,031
	Allowances for loan losses	(1)	—
	Other assets	17	45
	Other liabilities	4	—
Others	Securities	—	5,665
	Loans	803,266	1,006,600
	Allowances for loan losses	(355,141)	(734,729)
	Other assets	6,390	161,575
	Deposits	439,113	632,700
	Other liabilities	2,169	2,183
	Other provisions	60,070	105,880

42. Related Party Transactions, Continued

(3) Significant profit or loss with related parties for the years ended December 31, 2020 and 2019 are as follows:

	Account	2020	2019
Subsidiaries:			
KDB Capital Corporation	Interest income	₩ 137	205
	Dividend income	42,866	45,351
	Reversal of allowance for loan losses	1	—
	Fees and commission income, other income	4,165	6,889
	Interest expenses	(148)	(6)
	Provision for loan losses	—	(4)
	Other operating expenses	(7,786)	(3,399)
KDB Infrastructure Investments Asset Management Co., Ltd.	Dividend income	12,287	10,436
	Interest expenses	(331)	(473)
KDB Ireland Ltd.	Interest income	3,506	7,763
	Reversal of allowance for loan losses	—	6
	Fees and commission income, other income	9,662	9,220
	Interest expenses	(4)	(6)
	Provision for loan losses	(61)	—
	Other operating expenses	(2,868)	(3,776)
KDB Bank Europe Ltd.	Interest income	5,003	8,233
	Reversal of allowance for loan losses	12	—
	Fees and commission income, other income	495	1,174
	Provision for loan losses	—	(6)
	Other operating expenses	(2,281)	(443)
Banco KDB Do Brazil S.A.	Interest income	2,509	5,518
	Reversal of allowance for loan losses	—	6
	Provision for loan losses	(7)	—
KDB Indonesia Ltd.	Interest income	12	—
	Provision for loan losses	(6)	—
KDB Asia Ltd.	Interest income	11,910	12,841
	Fees and commission income, other income	3,933	1,574
	Interest expenses	(50)	—
	Provision for loan losses	(43)	(6)
	Other operating expenses	(760)	(1,628)
KDB Investment PEF No.1	Interest income	28,533	38,884
	Fees and commission income, other income	12,201	1,294
	Interest expenses	(386)	(668)
	Other operating expenses	(3,496)	(12,995)

42. Related Party Transactions, Continued

	Account	2020	2019
KDB Consus Value PEF	Interest income	₩ 1,600	4,350
	Fees and commission income, other income	8,005	32,306
	Interest expenses	(10)	(14)
	Other operating expenses	(15,887)	(4,262)
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Interest income	30,033	43,674
	Reversal of allowance for loan losses	47,914	—
	Fees and commission income, other income	320,474	704,956
	Interest expenses	(5,939)	(8,612)
	Provision for loan losses	—	(92,819)
	Other operating expenses	(380,139)	(619,249)
Corporate Liquidity Assistance Agency Co., Ltd.	Interest income	4,452	—
	Interest expenses	(2,847)	—
	Provision for loan losses	(64)	—
	Other operating expenses	(169)	—
Others	Interest income	23,280	50,009
	Dividend income	103,474	128,453
	Reversal of allowance for loan losses	28,870	353,511
	Fees and commission income, other income	148,144	230,540
	Interest expenses	(914)	(897)
	Provision for loan losses	(80,030)	(126,431)
	Other operating expenses	(153,704)	(285,324)
Associates:			
Korea Electric Power Co., Ltd.	Interest income	4,125	4,830
	Reversal of allowance for loan losses	—	1,925
	Fees and commission income, other income	178,140	15,479
	Interest expenses	(2,180)	(2,152)
	Provision for loan losses	(934)	—
	Other operating expenses	(46,166)	(146,873)
KG Dongbu Steel Co., Ltd.	Interest income	12,687	39,387
	Reversal of allowance for loan losses	62,035	337,370
	Fees and commission income, other income	33,704	50,879
	Interest expenses	(41)	(345)
	Other operating expenses	(14,044)	(32,610)

42. Related Party Transactions, Continued

	Account	2020	2019
HMM Co., Ltd.	Interest income	₩ 41,080	28,822
	Reversal of allowance for loan losses	4,761	—
	Fees and commission income, other income	558,057	188,357
	Interest expenses	(2,107)	(4,529)
	Provision for loan losses	—	(62,354)
	Other operating expenses	(11,334)	(1,118)
Hanjin Heavy Industries & Construction Co., Ltd.	Interest income	5,704	6,181
	Reversal of allowance for loan losses	—	62,892
	Fees and commission income, other income	12,226	121,534
	Interest expenses	(346)	(588)
	Other operating expenses	(22,460)	(993)
Korea Ocean Business Corporation	Interest income	380	419
	Fees and commission income, other income	3	45
	Interest expenses	(19)	—
	Provision for loan losses	(1)	—
	Other operating expenses	(969)	(297)
Others	Interest income	13,853	12,228
	Dividend income	243,044	217,290
	Reversal of allowance for loan losses	380,524	38,194
	Fees and commission income, other income	73,290	31,434
	Interest expenses	(3,481)	(6,442)
	Provision for loan losses	(3,320)	(3,719)
	Other operating expenses	(17,095)	(4,934)

(4) Details of guarantees and commitments to the related parties as of December 31, 2020 and 2019 are as follows:

	Account	December 31, 2020	December 31, 2019
Subsidiaries:			
KDB Capital Corporation	Commitments	₩ 320,000	290,000
KDB Investment PEF No.1	Unconfirmed acceptances and guarantees	7,854	19,976
	Commitments	298,706	176,000
Daewoo Shipbuilding & Marine Engineering Co., Ltd.	Confirmed acceptances and guarantees	1,226,351	1,692,241
	Unconfirmed acceptances and guarantees	557,377	566,566
	Commitments	5,084,798	1,453,763

42. Related Party Transactions, Continued

	Account	December 31, 2020	December 31, 2019
Corporate Liquidity Assistance Agency Co., Ltd.	Commitments	₩ 780,000	—
Others	Confirmed acceptances and guarantees	337,604	357,473
	Unconfirmed acceptances and guarantees	175,716	232,989
	Commitments	178,200	244,448
Associates:			
KG Dongbu Steel Co., Ltd.	Confirmed acceptances and guarantees	—	37,111
	Unconfirmed acceptances and guarantees	20,265	11,285
	Commitments	339,823	117,765
HMM Co., Ltd.	Confirmed acceptances and guarantees	13,056	—
Hanjin Heavy Industries & Construction Co., Ltd.	Confirmed acceptances and guarantees	414,630	358,785
	Unconfirmed acceptances and guarantees	3,337	3,062
	Commitments	22,614	—
Others	Confirmed acceptances and guarantees	76,628	113,256
	Unconfirmed acceptances and guarantees	28,431	106,422
	Commitments	244,384	347,391
		₩ 10,129,774	6,128,533

(5) Details of compensation to key management personnel for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Short-term employee benefits	₩ 1,130	1,234
Post-employment benefits	42	81
	₩ 1,172	1,315

(6) The Bank are not pledged any assets as collaterals to the related parties and from the related parties as of December 31, 2020 and 2019.

43. Statements of Cash Flows

(1) Cash and cash equivalents in the statements of cash flows as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Cash and due from banks:		
Cash and foreign currencies	₩ 52,240	53,529
Due from banks in Korean won	4,487,351	1,956,751
Due from banks in foreign currencies / off-shores	5,989,387	4,581,894
	10,528,978	6,592,174
Less: Restricted due from banks, others	(5,624,394)	(3,366,549)
Add: Financial instruments reaching maturity within three months from date of acquisition		
Call-loans	465,485	1,423,090
Inter-bank loans	359,125	604,110
	824,610	2,027,200
	₩ 5,729,194	5,252,825

(2) Significant transactions not involving cash flows for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Decrease in loans due to write-offs	₩ 158,616	149,932
Increase in securities measured at FVOCI due to debt-to-equity swap, etc	13,714	42,398
Increase in investments in subsidiaries and associates due to debt-to-equity swap, etc.	—	134,264
Increase(decrease) in accumulated other comprehensive income due to securities valuation	3,005,909	(119,919)
Deferred income tax effect due to securities valuation	(826,625)	32,978
Reclassification of investments in subsidiaries and associates to assets held for sale	78,278	1,661,320
Reclassification of investments in subsidiaries and associates to securities measured at FVTPL	—	4,100
Transfer from investment property to property and equipment	(16,037)	3,264
Transfer from property and equipment to investment property	5,590	—
Recognition of right-of-use assets and lease liabilities	31,499	25,394
Initial adoption of K-IFRS 1116	—	56,477

44. Transfers of Financial Instruments

Details of financial assets and liabilities related to repurchase agreements and loaned securities sold and loaned debt securities that do not qualify for derecognition as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		December 31, 2019	
Characteristics of transactions	Carrying amounts for transferred assets	Carrying amounts for related liabilities	Carrying amounts for transferred assets	Carrying amounts for related liabilities
Repurchase agreements	₩ 2,762,065	1,875,504	3,273,273	2,070,284
Loaned securities	289,806	—	40,059	—
	₩ 3,051,871	1,875,504	3,313,332	2,070,284

45. Fair Value of Financial Assets and Liabilities

The Bank classifies and discloses fair value of the financial instruments into the following three-level hierarchy:

- Level 1: Financial instruments measured at quoted prices from active markets are classified as level 1.
- Level 2: Financial instruments measured using valuation techniques where all significant inputs are observable market data are classified as level 2.
- Level 3: Financial instruments measured using valuation techniques where one or more significant inputs are not based on observable market data are classified as level 3.

(1) Fair value hierarchy of financial instruments measured at fair value

(i) The fair value hierarchy of financial instruments measured at fair value as of December 31, 2020 and 2019 are as follows:

	December 31, 2020			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Securities measured at FVTPL	₩ 1,023,738	1,064,829	6,232,064	8,320,631
Securities measured at FVOCI	2,439,145	17,067,639	14,634,541	34,141,325
Loans measured at FVTPL	—	—	1,434,514	1,434,514
Derivative financial assets	—	8,321,162	8,214	8,329,376
	₩ 3,462,883	26,453,630	22,309,333	52,225,846
Financial liabilities:				
Financial liabilities designated at FVTPL	₩ —	1,694,957	—	1,694,957
Derivative financial liabilities	—	6,298,836	6,451	6,305,287
	₩ —	7,993,793	6,451	8,000,244

45. Fair Value of Financial Assets and Liabilities, Continued

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Securities measured at FVTPL	₩ 1,409,326	1,608,875	4,804,158	7,822,359
Securities measured at FVOCI	1,219,680	12,164,468	10,865,012	24,249,160
Loans measured at FVTPL	—	—	604,380	604,380
Derivative financial assets	47	5,422,753	10,007	5,432,807
	₩ 2,629,053	19,196,096	16,283,557	38,108,706
Financial liabilities:				
Financial liabilities designated at FVTPL	₩ —	2,465,541	—	2,465,541
Derivative financial liabilities	342	4,171,251	75	4,171,668
	₩ 342	6,636,792	75	6,637,209

(ii) Changes in the fair value of level 3 financial instruments for the years ended December 31, 2020 and 2019 are as follows:

	2020					
	Financial assets					Financial liabilities
	Securities measured at FVTPL	Securities measured at FVOCI	Loans measured at FVTPL	Derivative financial assets	Total	Derivative financial liabilities
January 1, 2020	₩ 4,804,158	10,865,012	604,380	10,007	16,283,557	75
Profit or loss	(10,627)	—	649,450	(1,793)	637,030	6,376
Other comprehensive income	—	2,944,874	—	—	2,944,874	—
Acquisition / Issue	1,899,130	990,310	349,940	—	3,239,380	—
Sale / Settlement	(476,894)	(168,778)	(169,256)	—	(814,928)	—
Transfer out(*)	—	(24,556)	—	—	(24,556)	—
Transfer in(*)	16,297	27,679	—	—	43,976	—
December 31, 2020	₩ 6,232,064	14,634,541	1,434,514	8,214	22,309,333	6,451

45. Fair Value of Financial Assets and Liabilities, Continued

	2019					
	Financial assets					Financial liabilities
	Securities measured at FVTPL	Securities measured at FVOCI	Loans measured at FVTPL	Derivative financial assets	Total	Derivative financial liabilities
January 1, 2019	₩ 5,037,128	10,191,950	778,884	139,377	16,147,339	66
Profit or loss	(38,761)	—	42,921	(1,307)	2,853	9
Other comprehensive income	—	(215,862)	—	—	(215,862)	—
Acquisition / Issue	727,192	1,017,490	33,500	—	1,778,182	—
Sale / Settlement	(910,575)	(261,613)	(250,925)	(128,063)	(1,551,176)	—
Transfer out(*)	(10,826)	(201,053)	—	—	(211,879)	—
Transfer in(*)	—	334,100	—	—	334,100	—
December 31, 2019	₩ 4,804,158	10,865,012	604,380	10,007	16,283,557	75

(*) When significant inputs become observable market data, the financial instruments are transferred to (from) other levels.

(iii) Changes in deferred day one profit or loss for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Beginning balance	₩ 4,763	5,149
Amortization	(388)	(386)
Ending balance	₩ 4,375	4,763

(iv) Details of valuation technique and inputs used in the fair value measurement categorized within level 2 of the fair value hierarchy of financial instruments measured at fair value as of December 31, 2020 and 2019 are as follows:

	Valuation technique	Input
Securities measured at FVTPL and financial assets held for trading:		
Equity securities	Net asset value approach	Underlying asset price
Debt securities	Discounted cash flow method	Discount rate
Securities measured at FVOCI and available-for-sale financial assets:		
Equity securities	Net asset value approach	Underlying asset price
Debt securities	Discounted cash flow method	Discount rate
Derivatives financial assets:		
Interest rate swaps Currency forwards and swaps Currency options Commodities options	Discounted cash flow method, Black-Scholes model, Modified Black model, Formula model	Discount rate, exchange rate, volatility, commodity index, etc.
Financial liabilities measured at FVTPL:		
Debentures	Discounted cash flow method	Discount rate

45. Fair Value of Financial Assets and Liabilities, Continued

(v) Details of valuation technique and quantitative information about unobservable inputs used in the fair value measurement categorized within level 3 of the fair value hierarchy of financial instruments measured at fair value as of December 31, 2020 and 2019 are as follows:

	December 31, 2020		
	Valuation technique	**Unobservable input**	**Range (%)**
Securities measured at FVTPL			
Equity securities	Discounted cash flow method, Relative value approach, Net asset value approach	Discount rate	0.72 ~ 19.05
		Rate of increase in liquidation value	—
		Rate of increase in property disposal price	—
		Volatility	17.53 ~ 33.00
Securities measured at FVOCI			
Equity securities	Discounted cash flow method, Relative value approach, Net asset value approach	Discount rate	0.195 ~19.05
		Growth rate	—
		Volatility	18.49 ~ 26.45
Loans measured at FVTPL			
Convertible bonds, etc.	Binomial model, LSMC	Volatility	17.53 ~ 32.59
Derivatives financial assets			
Interest rate swaps	Discounted cash flow	Volatility	36.02 ~ 44.87
		Correlation coefficient	0.83 ~ 0.91
Interest rate options	Modified Black model	Volatility	36.02 ~ 44.87
Stock index options	Black-Scholes model	Volatility	17.20 ~ 27.30
Equity options	Discounted cash flow method and others	Volatility	18.49 ~ 33.00

45. Fair Value of Financial Assets and Liabilities, Continued

	December 31, 2019		
	Valuation technique	Unobservable input	Range (%)
Securities measured at FVTPL			
Equity securities	Discounted cash flow method, Relative value approach, Net asset value approach	Discount rate	3.91 ~ 9.69
		Rate of increase in liquidation value	—
		Rate of increase in property disposal price	—
		Volatility	16.02 ~ 34.72
Securities measured at FVOCI			
Equity securities	Discounted cash flow method, Relative value approach, Net asset value approach	Discount rate	3.04 ~ 16.59
		Growth rate	—
		Volatility	14.51 ~ 26.98
Loans measured at FVTPL			
Convertible bonds, etc.	Binomial model	Volatility	12.70 ~ 36.32
Derivatives financial assets			
Interest rate swaps	Discounted cash flow	Volatility	20.41 ~ 34.21
		Correlation coefficient	0.89 ~ 0.97
Interest rate options	Modified Black model	Volatility	20.41 ~ 34.21
Stock index options	Black-Scholes model	Volatility	12.77 ~ 21.80
Equity options	Discounted cash flow method and others	Volatility	14.51 ~ 21.85

(vi) The sensitivity analysis on changes in unobservable inputs for financial instruments categorized within level 3 of the fair value hierarchy of financial instruments measured at fair value as of December 31, 2020 and 2019 is as follows:

	December 31, 2020			
	Profit(loss) for the year		Other comprehensive income(loss)	
	Favorable change	Unfavorable change	Favorable change	Unfavorable change
Securities measured at FVTPL(*1)	₩ 8,478	(7,355)	—	—
Securities measured at FVOCI(*1)	—	—	45,231	(75,780)
Loans measured at FVTPL(*2)	64,022	(28,054)	—	—
Derivative financial assets(*2)	4,364	(1,846)	—	—
	₩ 76,864	(37,255)	45,231	(75,780)

45. Fair Value of Financial Assets and Liabilities, Continued

	December 31, 2019			
	Profit(loss) for the year		Other comprehensive income(loss)	
	Favorable change	Unfavorable change	Favorable change	Unfavorable change
Securities measured at FVTPL(*1)	₩ 11,703	(9,400)	—	—
Securities measured at FVOCI(*1)	—	—	3,041,744	(425,615)
Loans measured at FVTPL	6,521	(5,924)	—	—
Derivative financial assets(*2)	1,259	(940)	—	—
	₩ 19,483	(16,264)	3,041,744	(425,615)

(*1) Sensitivity amounts of equity securities are calculated by increasing and decreasing the correlations between the discount rates and the growth rates (0~1%) or the rate of increase in liquidation value (-1~1%) which are significant unobservable inputs. Sensitivity amounts for beneficiary certificates are calculated by increasing and decreasing the correlations between the discount rate of rent cash flow (-1~1%) and the rate of increase in property disposal price (-1~1%), only when they consist of real properties. Other than that, it is difficult to measure the sensitivity amounts of beneficiary certificates for practical reasons. Also, for financial instruments categorized within level 3 in 2020 and 2019, ₩20,500,366 million and ₩12,555,495 million, respectively, are excluded from the sensitivity disclosure because it is impossible to calculate the sensitivity due to changes in unobservable variables for practical reasons.

(*2) Sensitivity amounts of loans measured at FVTPL and derivatives financial instruments are calculated by increasing and decreasing the correlation coefficient and volatility (-10~10%) which are significant unobservable inputs.

(2) Fair value hierarchy of financial instruments measured at amortized cost

(i) The Bank's policies for measuring fair value of financial instruments at amortized costs are as follows:

- Cash and due from banks: Fair value of cash is considered equivalent to the carrying amount. In the case of due from banks on demand, which do not have a set maturity and can be realized instantly, the carrying amount is a close estimate of the fair value and is assumed so. In the case of other ordinary due from banks, the cash flow discount method is used to estimate the fair value.
- Securities measured at amortized cost: The fair value of securities measured at amortized cost is computed by widely-accepted appraisal agencies upon request.
- Loans measured at amortized cost: The fair value of loans measured at amortized cost is the expected future cash flows, reflecting premature redemption ratio, discounted by the market interest rate, adjusted by a spread sheet considering the probability of default. Exceptions to this method include loans with credit line facilities, loans with a maturity of three months or less left and impaired loans, which the Bank assumes the carrying amount as the fair value.
- Deposits: The fair value of deposits is computed using the discounted cash flow method. However, for deposits, whose cash flows cannot be estimated reasonably, the Bank assumes the carrying amount as the fair value.
- Borrowings: The fair value of industrial financial debentures is computed using the discounted cash flow method by the Bank's Fair Value Evaluation System. However, for borrowings including call money whose contractual maturity is three months or less, the Bank assumes the carrying amount as the fair value.

45. Fair Value of Financial Assets and Liabilities, Continued

- Debentures: The fair value of industrial financial debentures is computed using the discounted cash flow method by the Bank's Fair Value Evaluation System.
- Other financial assets and liabilities: The fair value of other financial assets and liabilities is computed using the discounted cash flow method. However, in cases cash flow cannot be estimated reasonably, the Bank assumes the carrying amount as the fair value.

(ii) The fair value hierarchy of financial instruments measured at amortized cost as of December 31, 2020 and 2019 are as follows:

	December 31, 2020			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Cash and due from banks(*)	₩4,904,584	5,624,394	—	10,528,978
Securities measured at amortized cost	665,183	120,081	—	785,264
Loans measured at amortized cost(*)	—	465,485	155,354,001	155,819,486
Other financial assets(*)	—	3,831,087	630,030	4,461,117
	₩5,569,767	10,041,047	155,984,031	171,594,845
Financial liabilities:				
Deposits(*)	₩ —	2,249,420	43,624,163	45,873,583
Borrowings(*)	—	1,008,635	17,865,518	18,874,153
Debentures	—	140,088,033	—	140,088,033
Other financial liabilities(*)	—	3,104,887	3,784,488	6,889,375
	₩ —	146,450,975	65,274,169	211,725,144

	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Cash and due from banks(*)	₩3,225,625	3,366,549	—	6,592,174
Securities measured at amortized cost	291,339	1,210,608	—	1,501,947
Loans measured at amortized cost(*)	—	1,423,090	139,681,137	141,104,227
Other financial assets(*)	—	4,042,106	913,542	4,955,648
	₩3,516,964	10,042,353	140,594,679	154,153,996
Financial liabilities:				
Deposits(*)	₩ —	2,455,470	32,210,470	34,665,940
Borrowings(*)	—	467,850	19,668,791	20,136,641
Debentures	—	122,450,628	—	122,450,628
Other financial liabilities(*)	—	2,781,527	4,303,900	7,085,427
	₩ —	128,155,475	56,183,161	184,338,636

(*) For financial instruments categorized as level 2, the carrying amount is considered as a reasonable approximation of the fair value and is thus, disclosed by fair value.

45. Fair Value of Financial Assets and Liabilities, Continued

(iii) Details of valuation technique and inputs used in the fair value measurement categorized within level 2 and level 3 of the fair value hierarchy of financial instruments measured at amortized cost as of December 31, 2020 and 2019 are as follows:

	Valuation technique	Input
Level 2		
Financial assets:		
Securities measured at amortized cost	Discounted cash flow method	Discount rate
Financial liabilities:		
Debentures	Discounted cash flow method	Discount rate
Level 3		
Financial assets:		
Loans measured at amortized cost	Discounted cash flow method	Credit spread, Other spread, Prepayment rate
Other financial assets	Discounted cash flow method	Other spread
Financial liabilities:		
Deposits	Discounted cash flow method	Other spread, Prepayment rate
Borrowings	Discounted cash flow method	Other spread
Other financial liabilities	Discounted cash flow method	Other spread

46. Categories of Financial Assets and Liabilities

Categories of financial assets and liabilities as of December 31, 2020 and 2019 are as follows:

	December 31, 2020							
	Cash and cash equivalents	Financial instruments measured at FVTPL	Financial instruments designated at FVTPL	Financial instruments measured at FVOCI	Financial instruments designated at FVOCI	Financial instruments measured at amortized cost	Hedging purpose derivative instruments	Total
Financial assets:								
Cash and due from banks	₩ 4,904,584	—	—	—	—	5,624,394	—	10,528,978
Securities measured at FVTPL	—	8,320,631	—	—	—	—	—	8,320,631
Securities measured at FVOCI	—	—	—	19,276,210	14,865,115	—	—	34,141,325
Securities measured at amortized cost	—	—	—	—	—	785,264	—	785,264
Loans measured at FVTPL	—	1,434,514	—	—	—	—	—	1,434,514
Loans measured at amortized cost	824,610	—	—	—	—	154,475,568	—	155,300,178
Derivative financial assets	—	6,880,971	—	—	—	—	1,448,405	8,329,376
Other financial assets	—	—	—	—	—	4,463,726	—	4,463,726
	₩ 5,729,194	16,636,116	—	19,276,210	14,865,115	165,348,952	1,448,405	223,303,992
Financial liabilities:								
Financial liabilities measured at FVTPL	₩ —	—	1,694,957	—	—	—	—	1,694,957
Deposits	—	—	—	—	—	45,879,419	—	45,879,419
Borrowings	—	—	—	—	—	18,887,611	—	18,887,611
Debentures	—	—	—	—	—	138,318,728	—	138,318,728
Derivative financial liabilities	—	6,206,902	—	—	—	—	98,385	6,305,287
Other financial liabilities	—	—	—	—	—	6,896,581	—	6,896,581
	₩ —	6,206,902	1,694,957	—	—	209,982,339	98,385	217,982,583

46. Categories of Financial Assets and Liabilities, Continued

	December 31, 2019							
	Cash and cash equivalents	Financial instruments measured at FVTPL	Financial instruments designated at FVTPL	Financial instruments measured at FVOCI	Financial instruments designated at FVOCI	Financial instruments measured at amortized cost	Hedging purpose derivative instruments	Total
Financial assets:								
Cash and due from banks	₩ 3,225,625	—	—	—	—	3,366,549	—	6,592,174
Securities measured at FVTPL	—	7,822,359	—	—	—	—	—	7,822,359
Securities measured at FVOCI	—	—	—	13,129,373	11,119,787	—	—	24,249,160
Securities measured at amortized cost	—	—	—	—	—	1,501,947	—	1,501,947
Loans measured at FVTPL	—	604,380	—	—	—	—	—	604,380
Loans measured at amortized cost	2,027,200	—	—	—	—	137,844,442	—	139,871,642
Derivative financial assets	—	4,526,186	—	—	—	—	906,621	5,432,807
Other financial assets	—	—	—	—	—	4,735,372	—	4,735,372
	₩ 5,252,825	12,952,925	—	13,129,373	11,119,787	147,448,310	906,621	190,809,841
Financial liabilities:								
Financial liabilities measured at FVTPL	₩ —	—	2,465,541	—	—	—	—	2,465,541
Deposits	—	—	—	—	—	34,663,952	—	34,663,952
Borrowings	—	—	—	—	—	20,170,513	—	20,170,513
Debentures	—	—	—	—	—	120,623,388	—	120,623,388
Derivative financial liabilities	—	3,983,552	—	—	—	—	188,116	4,171,668
Other financial liabilities	—	—	—	—	—	7,089,686	—	7,089,686
	₩ —	3,983,552	2,465,541	—	—	182,547,539	188,116	189,184,748

47. Offsetting of Financial Assets and Liabilities

Details of financial instruments subject to offsetting, enforceable master netting agreements or similar agreements as of December 31, 2020 and 2019 are as follows:

	December 31, 2020					
	Gross amounts of recognized financial asset	Gross amounts of recognized financial liabilities set off in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts not set off in the statement of financial position		Net amounts
				Financial instruments	Cash collateral received	
Derivative financial assets(*)	₩ 8,329,376	—	8,329,376	5,414,190	526,608	2,388,578
Unsettled spot exchange receivables(*)	2,517,129	—	2,517,129	2,516,540	—	589
Unsettled domestic exchange receivables	2,731,336	1,417,378	1,313,958	—	—	1,313,958
Security pledged as collateral for repurchase agreements	2,762,065	—	2,762,065	1,875,504	—	886,561
Reverse repurchase agreements	1,440,000	—	1,440,000	1,440,000	—	—
Loaned securities	289,806	—	289,806	289,806	—	—
Receivables from securities transaction	18,519	—	18,519	18,519	—	—
	₩ 18,088,231	1,417,378	16,670,853	11,554,559	526,608	4,589,686

	December 31, 2020					
	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not set off in the statement of financial position		Net amounts
				Financial instruments	Cash collateral pledged	
Derivative financial liabilities(*)	₩ 6,305,287	—	6,305,287	4,261,659	40,158	2,003,470
Unsettled spot exchange payables(*)	2,517,693	—	2,517,693	2,516,540	—	1,153
Unsettled domestic exchange payables	2,004,572	1,417,378	587,194	—	—	587,194
Repurchase agreements	1,875,504	—	1,875,504	1,875,504	—	—
Payables from securities transaction	14,766	—	14,766	14,766	—	—
	₩ 12,717,822	1,417,378	11,300,444	8,668,469	40,158	2,591,817

47. Offsetting of Financial Assets and Liabilities, Continued

	December 31, 2019					
	Gross amounts of recognized financial asset	Gross amounts of recognized financial liabilities set off in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts not set off in the statement of financial position		Net amounts
				Financial instruments	Cash collateral received	
Derivative financial assets(*)	₩ 5,432,807	—	5,432,807	3,580,419	232,372	1,620,016
Unsettled spot exchange receivables(*)	2,418,623	—	2,418,623	2,417,633	—	990
Unsettled domestic exchange receivables	2,971,680	1,348,198	1,623,482	—	—	1,623,482
Security pledged as collateral for repurchase agreements	3,273,273	—	3,273,273	2,070,284	—	1,202,989
Reverse repurchase agreements	940,000	—	940,000	940,000	—	—
Loaned securities	40,059	—	40,059	40,059	—	—
Receivables from securities transaction	19,520	—	19,520	19,520	—	—
	₩ 15,095,962	1,348,198	13,747,764	9,067,915	232,372	4,447,477

	December 31, 2019					
	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not set off in the statement of financial position		Net amounts
				Financial instruments	Cash collateral pledged	
Derivative financial liabilities(*)	₩ 4,171,668	—	4,171,668	3,158,950	48,392	964,326
Unsettled spot exchange payables(*)	2,417,981	—	2,417,981	2,417,633	—	348
Unsettled domestic exchange payables	1,711,744	1,348,198	363,546	—	—	363,546
Repurchase agreements	2,070,284	—	2,070,284	2,070,284	—	—
Payables from securities transaction	31,023	—	31,023	31,023	—	—
	₩ 10,402,700	1,348,198	9,054,502	7,677,890	48,392	1,328,220

(*) For the derivatives covered by the ISDA derivative contracts, all contracts are settled and the net amount of derivative contracts is measured and paid based on the liquidation value if the counterparty files for bankruptcy or has any credit issues.

48. Operating Segments

(1) The Bank has four reportable segments, as described below, which are the Bank's strategic business units. They are managed separately because each business requires different technology and marketing strategies. The following summary describes general information about each of the Bank's reportable segments:

Segments	General information
Corporate finance	Provides trade finance and loans to corporate customers
Investment finance	Provides consulting services to corporate such as capital finance, restructuring, etc.
Asset management	Provides asset management services to individual and corporate customers
Others	Any other segment not mentioned above

(2) Operating income (loss) from external customers and among operating segments for the years ended December 31, 2020 and 2019 are as follows:

	2020				
	Corporate finance	Investment finance	Asset management	Others	Total
Operating income (loss) from external customers	₩(103,776)	1,276,401	20,683	(298,796)	894,512
Operating income (loss) from intersegment sales	(91,113)	(350,835)	—	441,948	—
	₩ (194,889)	925,566	20,683	143,152	894,512

	2019				
	Corporate finance	Investment finance	Asset management	Others	Total
Operating income (loss) from external customers	₩1,090,563	602,962	28,028	(552,916)	1,168,637
Operating income (loss) from intersegment sales	(57,654)	(512,936)	—	570,590	—
	₩1,032,909	90,026	28,028	17,674	1,168,637

48. Operating Segments, Continued

(3) Details of segment results for the Bank's reportable segments for the years ended December 31, 2020 and 2019 are as follows:

	2020				
	Corporate finance	Investment finance	Asset management	Others	Total
Net interest income	₩ 1,215,271	45,289	(825)	19,838	1,279,573
Non-interest income Income related to securities(*1)	(9,932)	116,096	—	28,705	134,869
Other non-interest income	352,061	439,910	34,534	111,843	938,348
	342,129	556,006	34,534	140,548	1,073,217
Provision for loan losses and others(*2)	(1,095,754)	431,878	—	(5,065)	(668,941)
General and administrative expenses	(656,535)	(107,607)	(13,026)	(12,169)	(789,337)
Operating income	₩ (194,889)	925,566	20,683	143,152	894,512

	2019				
	Corporate finance	Investment finance	Asset management	Others	Total
Net interest income	₩ 1,496,342	(518,643)	6,407	78,216	1,062,322
Non-interest income Income related to securities(*1)	10,629	244,021	—	7,197	261,847
Other non-interest income	329,547	451,904	33,832	(55,760)	759,523
	340,176	695,925	33,832	(48,563)	1,021,370
Provision for loan losses and others(*2)	(188,465)	20,239	—	101	(168,125)
General and administrative expenses	(615,144)	(107,495)	(12,211)	(12,080)	(746,930)
Operating income	₩ 1,032,909	90,026	28,028	17,674	1,168,637

(*1) Income related to securities is composed of net gain (loss) on securities measured at FVTPL, securities measured at FVOCI and securities measured at amortized cost.

(*2) Provision for loan losses and others comprises of provision for loan losses, provision for derivative credit risks, gains (losses) on sales of loans, and increase (reversal) of provision.

48. Operating Segments, Continued

(4) Geographical revenue information about the Bank's operating segments for the years ended December 31, 2020 and 2019 and the geographical non-current asset information as of December 31, 2020 and 2019 are as follows:

	Revenues(*1)		Non-current assets(*2)	
	2020	2019	December 31, 2020	December 31, 2019
Domestic	₩ 31,206,147	23,768,565	26,606,309	25,292,696
Overseas	739,560	915,673	28,116	27,595
	₩ 31,945,707	24,684,238	26,634,425	25,320,291

(*1) Revenues consist of interest income, fees and commission income, dividend income, income related to securities, foreign currency transaction gain, gain on derivatives, other operating income and provision for loan losses.

(*2) Non-current assets consist of investments in subsidiaries and associates, property and equipment, investment property and intangible assets.

49. Risk Management

(1) Introduction

(i) Objectives and principles

The Bank's risk management aims to maintain financial soundness and effectively manage various risks pertinent to the nature of the Bank's business. The Bank has set up and fulfilled policies to manage risks timely and effectively. Pursuant to the policies, the Bank's risks shall be

- managed comprehensively and independently,
- recognized timely, evaluated exactly and managed effectively,
- maintained to the extent that the risks balance with profit,
- diversified appropriately to avoid concentration on specific segments,
- managed to prevent excessive exposure by the setting up and managing of tolerance limits and guidelines.

(ii) Risk management strategy and process

The Bank's risk management business is separated into two different stages; the 'metrification stage,' in which risks are estimated and monitored, and the 'integration stage,' in which information gained during the risk management process is integrated and used in management strategies. Risk management is recognized as a key component of the Bank's management and seeks to change from its previously adaptive and limited role to more leading and comprehensive role.

Furthermore, the Bank focuses on consistent communication among different departments to establish a progressive consensus on risk management.

49. Risk Management, Continued

(iii) Risk management governance

Risk Management Committee

The Bank's Risk Management Committee (the "Committee") is composed of the President of the committee (an outside director), and three other commissioners. The Committee functions to establish policies of risk management, evaluate the capital adequacy of the Bank, discuss material issues relating to risk management, and present preliminary decisions on such matters.

The CEO of the Bank and the head of Risk Management Segment

The CEO of the Bank, according to the policies of risk management, performs his or her role to manage and direct risk management to sustain efficiency and internal control. The head of the Risk Management Segment is responsible for supervising the overall administration of the Bank's risk management business and providing risk-related information to members of the board of directors and the Bank's management.

Risk Management Policy Committee and Risk Management Practice Committee

The Bank's Risk Management Policy Committee is composed of the leaders of all business segments. and exercises its role to decide important matters relating to the Bank's portfolio including allocating internal capital limits by segment and setting exposure limits by industry within the scope that Risk Management Committee regulated.

The Bank's Risk Management Practice Committee is composed of the planning department's leaders of main business segments. The Risk Management Practice Committee exercises its role to preliminarily review matters for main decision of the Risk Management Committee.

(iv) Performance of risk management committee

The Risk Management Committee performs comprehensive reviews of all the affairs related to risk management and deliberates the decisions of the board of directors. For the year ended December 31, 2020, the key activities of the Risk Management Committee are as follows:

- Major decision
  - Risk management plan for 2020
  - Setting and managing exposure limits by country for 2020
  - Contingency funding plan for 2020
- Major reporting
  - Improvement of credit portfolio management in 2020
  - Result of operation of corporate credit rating system in 2020
  - Verification of risk-weighted assets for BIS ratio as of December 31, 2019
  - Result of integrated crisis analysis for the second half of 2019

49. Risk Management, Continued

- Result of assessment of suitability for internal capital for 2019
- Result of integrated crisis analysis against COVID-19
- Setting major limit of credit portfolios
- Allocation of internal capital limits
- Result of BCP training against COVID-19
- Resolution of Credit Committee

(v) Improvement of risk management system

For the continuous improvement of risk management, financial soundness and capital adequacy, the Bank performs the following:

- Continuous improvement of Basel
  - Improvements in the internal capital adequacy assessment system, in line with the guidelines set by the Financial Supervisory Service (FSS) in 2008, to manage capital adequacy more effectively
  - Improvements in the credit assessment system on Low Default Portfolio (LDP)
  - Elaboration of risk measuring criteria including credit risk parameters and measurement logics
  - Development of the application system for timely calculation of LCR and NSFR
  - Rebuilding the Corporate Credit Rating System (approved by Financial Supervisory Services on October 26, 2017)
  - Establishment of the system to calculate Basel Interest Rate Risk in the Banking Book coming to domestic in September 2018

- Expansion of risk management infrastructure
  - Establishment of the RAPM system to reflect risks to the Bank's business and support decision-making upon management, and application of performance assessment at the branch level since 2010
  - Enforcement of risk management related to irregular compound derivatives and validation of the derivative pricing model developed by the Bank's Front Office
  - Establishment of IFRS 9 accounting system to calculate a loan loss allowances under IFRS 9 in March 2017 and, since then, run of IFRS 9 accounting system in January 2018

49. Risk Management, Continued

(vi) Risk management reporting and measuring system

The Bank endeavours consistently to objectively and rationally measure and manage all significant risks considering the characteristics of operational areas, assets and risks. In relation to reporting and measurement, the Bank has developed application systems as follows:

Application system	Approach	Completion date	Major function
Corporate Credit Rating System	Logit Model	Oct. 2017	Rebuilding the Corporate Credit Rating System
Market Risk Management System	Risk Watch	Jun. 2002 Feb. 2019	Summarize position, manage exposure limits and calculate Market VaR
	RS Model	Sep. 2012	Calculate regulatory capital by Standardized Approach
	Murex M/O	Apr. 2013	Supplement of RiskWatch to calculate VaR
Interest/Liquidity Risk Management System	In-house	May. 2019	Calculation of interest risk, liquidity risk, etc.
Operational Risk Management System	Standardized Approach	May. 2006	Manage process and calculate CSA, KRI and OP VaR, etc.
	AMA	May. 2009	Measure by Advanced Measurement Approach
BIS Capital Ratio Calculation/Credit Risk Measurement System	Fermat RaY	Sep. 2006 Dec. 2013	Calculate equity, credit risk-weighted assets and credit risk, etc.
Loan Loss Allowance Calculation System	IFRS IFRS 9	Jan. 2011 Mar. 2017	Incurred loss model Expected loss model

(*) Systems not used as of December 31, 2020 are excluded.

(vii) Response to Basel

The Korean financial authorities have implemented Basel II since January 2008, and the Standardized Approach and the Foundation Internal Ratings-Based Approach for calculating credit risk are applicable.

In conformity with the implementation roadmap of Basel II, the Bank obtained the approval to use the Foundation Internal Ratings-Based Approach on credit risk from the FSS in July 2008 and has applied the approach since late June 2008. The Bank applies the Standardized Approach on market risks and operational risks.

The Bank completed the Basel III standard risk management system in preparation of the adoption of the Basel III regulations announced on December 1, 2013. Starting from 2013 year-end, the BIS capital adequacy ratio has been measured in accordance to the Basel III regulations.

49. Risk Management, Continued

Responding to the requirements of the financial authorities, the Bank recognizes interest rate risk, liquidity risk, credit bias risk and reputation risk besides Pillar I risks (credit risk, market risk and operational risk). The Bank has actively responded to the Pillar 2 regulation, including additional capital requirements based on comprehensive assessment of risk management levels since 2015. In addition, from the end of 2015, the Bank has applied the uniform standards for the public announcement of financial business for Basel compliance.

The Bank completed revised standards such as capital requirements for banks' investments in funds in 2017, capital requirements for securitization in 2018, and the Standardised Approach for measuring counterparty credit risk (SA-CCR) in 2019.

To comply with the amended regulation relating to risk-weighted assets under Basel III, the Bank is receiving the consultation and establishing the relevant systems.

(viii) Internal capital adequacy assessment process

Internal capital adequacy assessment process is defined as the process that the Bank aggregates significant risks, calculates its internal capital, compares the internal capital with the available capital and assesses its internal capital adequacy. The internal capital adequacy report including the assessment results at the end of the year is prepared and reported to the Risk Management Policy Committee.

- Internal capital adequacy assessment

  For the internal capital adequacy assessment, the Bank calculates its aggregated internal capital by evaluating all significant risks and available capital considering the quality and components of capital, and then assesses the internal capital adequacy by comparing the aggregated internal capital with the available capital.

  In addition, the Bank conducts periodic stress tests more than once every six months to assess potential weakness in crisis situations and uses its results to assess the internal capital adequacy. The Bank assumes the macroeconomic situation as three stages of 'normal- pessimistic-serious' and is preparing countermeasures such as checking the adequacy of capital by each stage.

- Goal setting of internal capital management

  The Bank sets up and manages an internal capital limit on an annual basis, through the approval of the Risk Management Committee, to maintain internal capital adequacy by managing internal capital (integrated risks) within the extent of available capital.

  The prior year's internal capital, analysis of domestic and foreign environment changes in the current year, and the direction and size of operations are all reflected in the goal setting of internal capital management to calculate the integrated internal capital scale. Moreover, Bank for International Settlements(BIS) capital adequacy ratio and risk appetite are taken into consideration in the goal setting of internal capital management.

- Allocation of internal capital

  The Bank's Risk Management Committee approves entire internal capital and the Risk Management Policy Committee allocates the capital to each segment and department, considering the extent of possible risk faced and size of operations. The allocated internal capital is monitored regularly and

49. Risk Management, Continued

managed using various management methods. The results of monitoring and managing the allocated internal capital are reported to the Risk Management Committee. In case of any material changes in the Bank's business plan or risk operation strategy, the Bank adjusts the allocations elastically.

- Composition of internal capital

  Internal capital comprises all the significant risks of the Bank and is composed of quantifiable and non-quantifiable risks. Quantifiable risks are composed of credit risk, market risk, interest rate risk, operational risk and credit concentration risk, foreign currency settlement risk, and are risks measured quantitatively by applying reasonable methodology using objective data. Non-quantifiable risks are composed of strategy risk, reputation risk, residual risk on asset securitization and furthermore. Non-quantifiable risks are those risks that cannot be measured quantitatively because of lack of data or the absence of appropriate measuring methodologies.

(2) Credit Risk

(i) Concept

Credit risk can be defined as potential loss resulting from the refusal to perform obligations or default of counterparties. More generally, it is used to refer to the possibility of loss from engaged bonds that cannot be redeemed properly or from substitute payments.

(ii) Approach to credit risk management

Summary of credit risk management

The Bank regards credit risk as the most significant risk area in its business operations, and accordingly, closely monitors its credit risk exposure. The Bank manages both credit risks at portfolio level and at individual credit level. At portfolio level, the Bank reduces credit concentration and restructures the portfolio in such a way to maximize profitability considering the risk level. To avoid credit concentration on a particular sector, the Bank manages credit limits by client, group, and industry. The Bank also resets exposure management directives for each industry by conducting an industry credit evaluation twice a year.

At the individual credit level, the relationship manager (RM), the credit officer (CO) and the Credit Review Committee manage each borrower's credit risk.

Post management and insolvent borrower management

The Bank monitors the borrower's credit rating from the date of the loan to the date of the final collection of debt consistently and inspects the borrower's status regularly and frequently to prevent the generation of new bad debts and to stabilize the number of debt recoveries.

In addition, an early warning system is operated to spot borrowers that are highly likely to be insolvent. The early warning system provides financial information, financial transaction information, public information and market information of the borrower, and such information is used by the RM and the CO to monitor and manage changes in the borrower's credit rating.

A borrower that is likely to be insolvent is classified as an early warning borrower or a precautionary borrower, depending on the level of insolvency risk. The Bank sets up a specific and applicable stabilization plan

49. Risk Management, Continued

for such a borrower considering the borrower's characteristics. Furthermore, sub-standard borrowers are classified as insolvent borrowers, and are managed intensively by the Bank, which takes legal proceedings, disposals or corporate turnaround measures if necessary.

Classification of asset soundness and provision of allowance for loss

Classification of asset soundness is fulfilled by the analysis and assessment of credit risk. The classification is used to provide an appropriate allowance, prevent further occurrences of insolvent assets and promote the normalization of existing insolvent assets to enhance the stabilization of asset operations.

Based on the Financial Supervisory Regulations of the Republic of Korea, the Bank has established standards and guidelines on the classification of asset soundness, according to the Forward-Looking Criteria, which reflects not only the borrower's past records of repayment but also their future debt repayment capability.

In conformity with these standards, the Bank classifies the soundness of its assets as "normal", "precautionary", "substandard", "doubtful", or "estimated loss" and differentiates the coverage ratio by the level of classification.

Details of loans by credit rating as of December 31, 2020 and 2019 are as follows:

< Corporate >

	December 31, 2020			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
AAA ~ BBB1	₩ 119,275,121	116,563,480	2,711,641	—
BBB2 ~ CCC	36,638,249	22,365,102	14,262,908	10,239
Below CC	2,932,191	—	85,070	2,847,121
	₩ 158,845,561	138,928,582	17,059,619	2,857,360

	December 31, 2019			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
AAA ~ BBB1	₩ 110,616,343	108,584,384	2,027,955	4,004
BBB2 ~ CCC	29,080,587	17,954,042	11,022,602	103,943
Below CC	2,968,215	—	81,603	2,886,612
	₩ 142,665,145	126,538,426	13,132,160	2,994,559

49. Risk Management, Continued

< Retail >

	December 31, 2020			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
Grade 1 ~ Grade 6	₩ 234,096	223,180	10,623	293
Grade 7 ~ Grade 8	3,561	—	3,444	117
Grade 9 ~ Grade 10	354	—	—	354
	₩ 238,011	223,180	14,067	764

	December 31, 2019			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
Grade 1 ~ Grade 6	₩ 314,643	297,795	16,848	—
Grade 7 ~ Grade 8	4,952	—	4,680	272
Grade 9 ~ Grade 10	1,316	—	—	1,316
	₩ 320,911	297,795	21,528	1,588

Details of payment guarantees (including financial guarantees) and unused commitments by credit rating as of December 31, 2020 and 2019 are as follows:

< Corporate >

	December 31, 2020			
			Lifetime expected credit losses	
	Exposures	12-month expected credit loss	Non credit-impaired	Credit-impaired
Unused commitments:				
AAA ~ BBB1	₩ 32,811,121	32,391,593	419,528	—
BBB2 ~ CCC	9,970,279	6,922,824	3,047,455	—
Below CC	97	—	97	—
	₩ 42,781,497	39,314,417	3,467,080	—
Payment guarantees (including financial guarantees):				
AAA ~ BBB1	₩ 4,743,686	4,412,348	331,338	—
BBB2 ~ CCC	4,665,561	2,814,897	1,846,293	4,371
Below CC	689,858	—	1,351	688,507
	₩ 10,099,105	7,227,245	2,178,982	692,878

49. Risk Management, Continued

	December 31, 2019			
			Lifetime expected credit losses	
	Exposures	12-month expected credit loss	Non credit-impaired	Credit-impaired
Unused commitments:				
AAA ~ BBB1	₩ 26,612,525	26,400,729	211,796	—
BBB2 ~ CCC	4,349,843	1,891,393	2,458,450	—
Below CC	985	—	—	985
	₩ 30,963,353	28,292,122	2,670,246	985
Payment guarantees (including financial guarantees):				
AAA ~ BBB1	₩ 5,742,384	5,706,379	36,005	—
BBB2 ~ CCC	4,339,343	1,993,030	2,340,173	6,140
Below CC	917,465	—	—	917,465
	₩ 10,999,192	7,699,409	2,376,178	923,605

< Retail >

	December 31, 2020			
			Lifetime expected credit losses	
	Exposures	12-month expected credit loss	Non credit-impaired	Credit-impaired
Unused commitments:				
Grade 1 ~ Grade 6	₩ 60,583	59,203	1,380	—
Grade 7 ~ Grade 8	59	—	59	—
Grade 9 ~ Grade 10	—	—	—	—
	₩ 60,642	59,203	1,439	—

	December 31, 2019			
			Lifetime expected credit losses	
	Exposures	12-month expected credit loss	Non credit-impaired	Credit-impaired
Unused commitments:				
Grade 1 ~ Grade 6	₩ 52,585	52,252	333	—
Grade 7 ~ Grade 8	11	—	11	—
Grade 9 ~ Grade 10	—	—	—	—
	₩ 52,596	52,252	344	—

49. Risk Management, Continued

(iii) Measurement methodology of credit risk

Pursuant to Basel III, the Bank selects the measurement methodology of credit risk considering the complexity of measurement, measurement factors, estimating methods and others. Measurement approaches are divided into Standardized Approach and Internal Ratings-Based Approach.

Standardized Approach ("SA")

In the case of the Standardized Approach, the risk weights are applied according to the credit rating assessed by External Credit Assessment Institution ("ECAI"). Risk weights in each credit rating are as follows:

Credit rating	Corporate	Country	Bank
AAA ~ AA-	20.00%	0.00%	20.00%
A+ ~ A-	50.00%	20.00%	50.00%
BBB+ ~ BBB-	100.00%	50.00%	100.00%
BB+ ~ BB-	100.00%	100.00%	100.00%
B+ ~ B-	150.00%	100.00%	100.00%
Below B-	150.00%	150.00%	150.00%
Unrated	100.00%	100.00%	100.00%

The OECD is designated as foreign ECAI and Korea Investrors Service Co., Ltd., NICE Investors Services Co., Ltd. and the Korea Ratings Co., Ltd. are designated as domestic ECAI.

The Bank applies the credit rating based on the corresponding loan and same borrower's unsecured senior loans. In the case the borrower's risk weight is higher than the unrated exposure's risk weight (100%), the higher weight is applied. In the case the borrower has more than one rating, the higher weight of the two lowest weights (Second Best Criteria) is applied.

Internal Ratings-Based Approach (IRB)

To use the Internal Ratings-Based Approach, a bank must be approved by the FSS and should also meet the requirement pre-set by the FSS.

In relation to Basel II that has been adopted domestically as of January 2008, the Bank gained approval from the FSS to use the Foundation Internal Ratings-Based Approach in July 2008. The Bank has calculated credit risk-weighted assets using the approach since late June 2008.

Measurement method of credit risk-weighted asset

The Bank calculates credit risk-weighted assets of corporate exposures and asset securitization exposures using the Foundation Internal Ratings-Based Approach as of December 31, 2020.

49. Risk Management, Continued

The Standardized Approach is applied to country exposures, public institution exposures and bank exposures permanently and applied to overseas subsidiary and the Bank's branch pursuant to prior consultation with the FSS.

<Approved measurement method>

Measurement method		Exposure
Standardized Approach	Permanent SA	—Countries, public institutions and banks
	SA	—Overseas subsidiaries and branches, and other assets
Foundation Internal Ratings-Based Approach		—Corporate, small and medium enterprises, asset securitization (at each credit level) and equity
Application of IRB by phase		—Special lending, non-residence, non-bank financial institutions

The mitigated effect of credit risks reflects the related policies which consider eligible collateral and guarantees. The Bank calculates the credit risk-weighted assets using the capital adequacy ratio.

Upon the calculation of credit risk-weighted assets for derivatives, the Bank takes into consideration the set-off effects of transactions under legally enforceable rights to set-off to calculate exposures.

Credit rating model

The results of credit rating are presented as grades through an assessment of the debt repayment capacity that the principal and interest of debt securities or loans are redeemed while complying with contractual redemption schedule.

Using the Bank's internal credit rating model, the Bank classifies debtors' credit rating into 14 grades (AAA~D). To distinguish the difference between credits in the same grade, the Bank uses 20 stages as auxiliaries to 14 grades.

The Bank's regular credit rating process is carried out once a year and in the case of the change of debtor's credit condition, the credit rating is frequently adjusted as necessary to retain the adequacy of credit rating.

The results of credit rating are applied to various areas such as discrimination of loan processes, loan limit, loan interest rate, post loan management standard process, credit risk measurement, and allowance for loan losses assessment.

Credit process control structure

According to the Principle of Checks and Balances, the Bank has established the credit process control structure by which the credit rating system operates appropriately.

- Independent assessment of credit rating: The Bank's business segment (RM) and credit rating assessment segment (Credit Rating Officer) are independently operated.
- Independent control of credit rating system: The control of credit rating system including the development of credit rating model is independently implemented by the Bank's Risk Management Department.

49. Risk Management, Continued

- Independent verification of credit rating system: Credit rating system is independently verified by Risk Validation Team of the Financial Planning Department.
- Internal audit of credit rating process: Credit rating process is audited by the Bank's internal audit department.
- Role of the Board of Directors and the Bank's management: Major issues relating to credit process are approved by the Board of Directors and are regularly monitored by the Bank's top management.

The Bank reviews debt serviceability based on a credit analysis when handling loans. Depending on the results, credit loan preservation is adjusted as necessary using such methods as interest rate preservation due to credit risk.

The Bank evaluates the value of the collateral, performing ability and legal validity of the guarantee at the initial acquisition. The Bank re-evaluates the provided collateral and guarantees regularly for them to be reasonably preserved.

For guarantees, the Bank demands a corresponding written guarantee according to loan handling standards and the guarantor's credit rating is independently calculated when in conformance with the credit rating endowment method.

The quantification of the extent to which collateral and other credit enhancements mitigate credit risk of impaired financial assets as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
Securities measured at FVOCI	₩ 70,397	71,336
Loans measured at amortized cost	3,009,118	3,035,401
Other assets	21,817	174,418

49. Risk Management, Continued

(iv) Credit exposure

Geographical information of credit exposure as of December 31, 2020 and 2019 are as follows:

	December 31, 2020				
	Korea	UK	USA	Others	Total
Due from banks (excluding due from BOK)	₩ 5,468,189	238,108	129,309	465,850	6,301,456
Securities measured at FVOCI:					
Bonds (excluding government bonds)	9,821,122	1,082,184	628,370	1,322,310	12,853,986
Loans	144,418,267	1,530,962	1,167,894	10,506,187	157,623,310
Derivative financial assets	1,432,559	—	—	16,347	1,448,906
Other assets	4,436,564	72,082	7,943	60,769	4,577,358
	165,576,701	2,923,336	1,933,516	12,371,463	182,805,016
Guarantees	9,977,111	—	82,408	39,586	10,099,105
Commitments	41,901,283	287,840	128,131	524,886	42,842,140
	51,878,394	287,840	210,539	564,472	52,941,245
	₩217,455,095	3,211,176	2,144,055	12,935,935	235,746,261

	December 31, 2019				
	Korea	UK	USA	Others	Total
Due from banks (excluding due from BOK)	₩ 3,863,113	229,164	182,661	484,564	4,759,502
Securities measured at FVOCI:					
Bonds (excluding government bonds)	6,984,720	823,813	651,947	1,634,971	10,095,451
Loans	130,256,488	1,371,473	1,099,845	9,025,911	141,753,717
Derivative financial assets	899,141	103	—	7,977	907,221
Other assets	4,826,675	64,086	18,819	77,013	4,986,593
	146,830,137	2,488,639	1,953,272	11,230,436	162,502,484
Guarantees	10,874,769	—	88,031	36,392	10,999,192
Commitments	31,235,187	251,884	186,714	1,362,759	33,036,544
	42,109,956	251,884	274,745	1,399,151	44,035,736
	₩188,940,093	2,740,523	2,228,017	12,629,587	206,538,220

49. Risk Management, Continued

Industry information of credit exposure as of December 31, 2020 and 2019 are as follows:

	December 31, 2020			
	Manufacturing	Service	Others	Total
Due from banks (excluding due from BOK)	₩ —	5,909,550	391,906	6,301,456
Securities measured at FVOCI:				
Bonds (excluding government bonds)	2,570,583	7,762,090	2,521,313	12,853,986
Loans	70,089,916	75,782,918	11,750,476	157,623,310
Derivative financial assets	—	1,448,906	—	1,448,906
Other assets	115,348	176,753	4,285,257	4,577,358
	72,775,847	91,080,217	18,948,952	182,805,016
Guarantees	7,622,494	2,197,060	279,551	10,099,105
Commitments	16,211,814	15,785,658	10,844,668	42,842,140
	23,834,308	17,982,718	11,124,219	52,941,245
	₩ 96,610,155	109,062,935	30,073,171	235,746,261

	December 31, 2019			
	Manufacturing	Service	Others	Total
Due from banks (excluding due from BOK)	₩ —	4,343,929	415,573	4,759,502
Securities measured at FVOCI:				
Bonds (excluding government bonds)	2,475,329	6,110,639	1,509,483	10,095,451
Loans	63,704,865	67,711,892	10,336,960	141,753,717
Derivative financial assets	—	907,221	—	907,221
Other assets	129,268	201,700	4,655,625	4,986,593
	66,309,462	79,275,381	16,917,641	162,502,484
Guarantees	8,310,671	2,147,739	540,782	10,999,192
Commitments	28,183,356	4,572,876	280,312	33,036,544
	36,494,027	6,720,615	821,094	44,035,736
	₩ 102,803,489	85,995,996	17,738,735	206,538,220

49. Risk Management, Continued

The detail of credit exposures by industry affected by the pandemic of COVID-19 as of December 31, 2020 is as follows and the exposures by industries could be changed according to economic fluctuations.

	December 31, 2020									
	Due from banks (excluding due from BOK)	Securities measured at FVOCI: Bonds (excluding Government bonds)	Loans	Derivative financial assets	Other assets	Subtotal	Guarantees	Commit-ments	Subtotal	Total
Manufacturing:										
Display	₩ —	—	739,944	—	3,016	742,960	168,168	236,421	404,589	1,147,549
Semiconductor /Mobile phone	—	146,790	4,403,204	—	8,850	4,558,844	104,489	399,119	503,608	5,062,452
Automotive	—	176,401	10,602,271	—	13,778	10,792,450	314,583	1,363,455	1,678,038	12,470,488
Refinery/Chemical / Energy	—	623,842	11,147,364	—	20,666	11,791,872	158,665	4,010,584	4,169,249	15,961,121
Steel/Metal	—	182,011	10,269,067	—	14,946	10,466,024	684,582	1,905,452	2,590,034	13,056,058
Others	—	1,441,539	32,928,066	—	54,092	34,423,697	6,192,007	8,296,783	14,488,790	48,912,487
	—	2,570,583	70,089,916	—	115,348	72,775,847	7,622,494	16,211,814	23,834,308	96,610,155
Service:										
Air transportation	—	3,156	3,437,648	—	7,991	3,448,795	287,309	28,000	315,309	3,764,104
Sea transportation	—	—	2,331,411	—	16,875	2,348,286	28,297	327,689	355,986	2,704,272
Other transportation	—	90,643	5,543,443	—	9,307	5,643,393	32,136	2,269,016	2,301,152	7,944,545
Leisure/Travel industry	—	—	177,498	—	403	177,901	—	3,315	3,315	181,216
Food/Accommodation	—	104,057	2,093,370	—	3,917	2,201,344	48,226	281,437	329,663	2,531,007
Automotive- related	—	—	475,921	—	669	476,590	18,174	35,615	53,789	530,379
Finance/Insurance	2,013	139,662	8,948	—	944	151,567	—	300	300	151,867
Others	5,907,537	7,424,572	61,714,679	1,448,906	136,647	76,632,341	1,782,918	12,840,286	14,623,204	91,255,545
	5,909,550	7,762,090	75,782,918	1,448,906	176,753	91,080,217	2,197,060	15,785,658	17,982,718	109,062,935
Other:										
Construction	—	210,744	2,505,959	—	3,806	2,720,509	160,829	1,110,573	1,271,402	3,991,911
Others	391,906	2,310,569	9,244,517	—	4,281,451	16,228,443	118,722	9,734,095	9,852,817	26,081,260
	391,906	2,521,313	11,750,476	—	4,285,257	18,948,952	279,551	10,844,668	11,124,219	30,073,171
	₩6,301,456	12,853,986	157,623,310	1,448,906	4,577,358	182,805,016	10,099,105	42,842,140	52,941,245	235,746,261

Responding to the COVID-19 pandemic, the Bank recalculates the forward-looking information and recognises additional allowance for loan losses and provisions amounting to ₩948,225 million.

49. Risk Management, Continued

Credit exposures of debt securities by credit rating as of December 31, 2020 and 2019 are as follows:

	December 31, 2020			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
AAA ~ BBB1	₩20,015,223	19,837,158	178,065	—
BBB2 ~ CCC	46,251	36,205	10,046	—
Below CC	—	—	—	—
	₩20,061,474	19,873,363	188,111	—

	December 31, 2019			
			Lifetime expected credit losses	
	Carrying amounts	12-month expected credit loss	Non credit-impaired	Credit-impaired
AAA ~ BBB1	₩14,582,903	14,550,867	32,036	—
BBB2 ~ CCC	48,417	48,417	—	—
Below CC	—	—	—	—
	₩14,631,320	14,599,284	32,036	—

(3) Capital management activities

(i) Capital adequacy

The FSS approved the Bank's use of the Foundation Internal Ratings-Based Approach in July 2008. The Bank has been using the same approach when calculating credit risk-weighted assets since the end of June 2008. The equity capital ratio and equity capital according to the standards of the Bank for International Settlements are calculated for such disclosure. The equity capital ratio and equity capital are calculated on a consolidated basis. In conformity with the Banking Act, which is based on the implementation of Basel III on December 1, 2013, the regulatory capital is divided into the following two categories.

Tier 1 capital

- Common Equity Tier 1

Regulatory capital that represents the most subordinated claim in liquidation of the Bank, takes the first and proportionately greatest share of any losses as they occur, and which principal is never repaid outside of liquidation meets the criteria for classification as common equity, including capital stock, capital surplus, retained earnings and accumulated other comprehensive income as common equity Tier 1.

- Additional Tier 1 capital

Capital stock and capital surplus related to issuance of capital securities that are subordinated, have non-cumulative and conditional dividends or interests, and have no maturity or step-up conditions.

49. Risk Management, Continued

Tier 2 capital (Supplementary Tier 2 capital)

Regulatory capital that fulfills supplementary capital adequacy requirements, and includes subordinated debt with maturities over 5 years and allowance for loan losses in conformity with external regulatory standards and internal standards.

The BIS capital adequacy ratio and capital in accordance to Basel III standards as of December 31, 2020 and 2019 are as follows:

BIS capital adequacy ratio

	December 31, 2020	December 31, 2019
Equity capital based on BIS (A):		
Tier 1 capital:		
Common Equity Tier 1	₩ 36,021,786	30,215,602
Additional Tier 1 capital	—	—
	36,021,786	30,215,602
Tier 2 capital	4,312,476	4,785,803
	₩ 40,334,262	35,001,405
Risk-weighted assets (B):		
Credit risk-weighted assets	₩246,279,611	242,573,920
Market risk-weighted assets	1,490,013	1,933,641
Operational risk-weighted assets	4,880,008	4,574,554
	₩252,649,632	249,082,115
BIS capital adequacy ratio (A/B):	15.96%	14.05%
Tier 1 capital ratio:	14.26%	12.13%
Common Equity Tier 1 ratio	14.26%	12.13%
Additional Tier 1 capital ratio	—	—
Tier 2 capital ratio	1.71%	1.92%

49. Risk Management, Continued

Equity capital based on BIS

	December 31, 2020	December 31, 2019
Tier 1 capital (A):		
Common Equity Tier 1		
Capital stock	₩20,765,729	18,663,099
Capital surplus, etc.	1,036,196	979,359
Retained earnings	12,326,526	10,642,865
Accumulated other comprehensive income	2,324,417	310,138
Common stock deductibles	(431,082)	(379,859)
	36,021,786	30,215,602
Tier 2 capital (B):		
Allowance for doubtful accounts, etc.	1,057,559	951,624
Qualified capital securities	2,780,000	3,060,000
Non-qualified capital securities	516,119	774,179
Additional stock deductibles	(41,202)	—
	4,312,476	4,785,803
Equity capital (A+B)	₩40,334,262	35,001,405

(4) Market risk

(i) Concept

Market risk is defined as the possibility of potential loss resulting from fluctuations in interest rates, foreign exchange rates and the price of stocks and commodities. Trading position is exposed to risks, such as interest rate, stock price, and foreign exchange rate, etc. Non-trading position is mostly exposed to interest rates. Accordingly, the Bank classifies market risks into those exposed from trading position or those exposed from non-trading position.

(ii) Market risks of trading positions

Management method on market risks arising from trading positions

In estimating market risk, the Standardized Approach and the internal model are used. The Standardized Approach is used to calculate the required capital from market risk and the internal model is used to manage risks internally. Since July 2007, the Bank has measured one-day VaR through the historical simulation method using the time series data of past 250 days under a 99% confidence level. The calculated VaR is monitored daily.

The Bank sets total limit of market risk based on annual business plan, risk appetite and others and monitors VaR limit of each department on a daily basis.

49. Risk Management, Continued

Capital Requirements for Market risk

The Bank's Capital Requirements for Market risk as of December 31, 2020 and December 31, 2019 are as follows:

	December 31, 2020	December 31, 2019
Interest rate risk	₩ 45,739	69,317
Equity risk	—	848
Foreign exchange (FX) risk	32,118	14,184
Option risk	30,055	61,742
	₩ 107,912	146,091

(iii) Market risks of non-trading positions

Management method on market risks arising from non-trading positions

The most critical market risk that arises in non-trading position is the interest rate risk. Interest rate risk is defined as the likely loss resulting from the unfavorable fluctuation of interest rate in the Bank's financial condition and is measured by interest rate VaR and interest rate EaR.

Interest rate VaR is the maximum amount of decrease in net asset value resulting from the unfavorable fluctuation of interest rate. Interest rate EaR is the maximum amount of decrease in net interest income resulting from the unfavorable fluctuation of interest rate for a year.

The Bank's interest rate VaR and interest rate EaR are measured through the simulation of conclusive interest rate scenario and are periodically reported to the Risk Management Policy Committee and the head of Risk Management Segment. The Risk Management Committee's target of interest rate VaR and interest rate EaR are approved at the beginning of the year. To disclose the Bank's interest risk, interest rate VaR and interest rate EaR are disclosed calculating change in economic value of equity ("ΔEVE") and in net interest income ("ΔNII") based on the application of IRRBB ("Interest Rate Risk in Banking Book") method.

ΔEVE and ΔNII of the Bank's non-trading positions as of December 31, 2020 and 2019 are as follows:

	December 31, 2020	December 31, 2019
ΔEVE	₩461,158	1,154,413
ΔNII	90,081	91,538

49. Risk Management, Continued

(iv) Foreign currency risk

Outstanding balances by currency with significant exposure as of December 31, 2020 and 2019 are as follows:

	December 31, 2020						
	KRW	USD	EUR	JPY	GBP	Others	Total
Financial assets:							
Cash and due from banks	₩ 4,523,911	5,783,607	34,968	71,912	17,964	96,616	10,528,978
Securities measured at FVTPL	7,779,699	488,359	—	316	—	52,257	8,320,631
Securities measured at FVOCI	28,868,837	5,018,056	25	206,249	—	48,158	34,141,325
Securities measured at amortized cost	785,264	—	—	—	—	—	785,264
Loans measured at FVTPL	1,429,258	5,256	—	—	—	—	1,434,514
Loans measured at amortized cost	117,661,851	32,590,755	1,977,320	1,281,467	434,845	1,353,940	155,300,178
Derivative financial assets	6,395,927	1,736,642	86,654	353	72,523	37,277	8,329,376
Other financial assets	3,034,997	877,574	230,329	12,274	32,848	275,704	4,463,726
	170,479,744	46,500,249	2,329,296	1,572,571	558,180	1,863,952	223,303,992
Financial liabilities:							
Financial liabilities measured at FVTPL	1,578,544	116,413	—	—	—	—	1,694,957
Deposits	37,674,768	7,870,846	26,068	305,890	85	1,762	45,879,419
Borrowings	6,092,647	11,794,352	160,347	679,535	—	160,730	18,887,611
Debentures	107,496,854	21,485,451	1,923,888	674,748	818,290	5,919,497	138,318,728
Derivative financial liabilities	5,103,794	1,122,091	10,475	6,639	32,574	29,714	6,305,287
Other financial liabilities	3,831,466	2,630,783	73,055	13,336	26,678	321,263	6,896,581
	161,778,073	45,019,936	2,193,833	1,680,148	877,627	6,432,966	217,982,583
Net financial position	₩ 8,701,671	1,480,313	135,463	(107,577)	(319,447)	(4,569,014)	5,321,409

49. Risk Management, Continued

	December 31, 2019						
	KRW	USD	EUR	JPY	GBP	Others	Total
Financial assets:							
Cash and due from banks	₩ 1,992,662	4,428,131	16,091	27,901	14,060	113,329	6,592,174
Securities measured at FVTPL	7,286,709	468,477	3,836	391	—	62,946	7,822,359
Securities measured at FVOCI	19,991,360	4,057,585	24	200,191	—	—	24,249,160
Securities measured at amortized cost	1,501,947	—	—	—	—	—	1,501,947
Loans measured at FVTPL	604,380	—	—	—	—	—	604,380
Loans measured at amortized cost	101,349,420	34,594,315	1,479,850	1,128,442	496,257	823,358	139,871,642
Derivative financial assets	4,522,100	807,276	62,777	558	26,090	14,006	5,432,807
Other financial assets	2,818,075	1,833,030	45,636	28,173	21	10,437	4,735,372
	140,066,653	46,188,814	1,608,214	1,385,656	536,428	1,024,076	190,809,841
Financial liabilities:							
Financial liabilities measured at FVTPL	2,228,158	237,383	—	—	—	—	2,465,541
Deposits	27,277,837	7,086,072	8,978	288,531	58	2,476	34,663,952
Borrowings	5,895,462	13,098,074	268,544	745,687	155,984	6,762	20,170,513
Debentures	92,869,745	19,589,528	1,954,226	499,506	737,037	4,973,346	120,623,388
Derivative financial liabilities	3,573,527	568,059	12,604	3,296	1,436	12,746	4,171,668
Other financial liabilities	5,114,505	1,853,159	15,052	34,318	2,746	69,906	7,089,686
	136,959,234	42,432,275	2,259,404	1,571,338	897,261	5,065,236	189,184,748
Net financial position	₩ 3,107,419	3,756,539	(651,190)	(185,682)	(360,833)	(4,041,160)	1,625,093

(5) Liquidity risk management

(i) Concept

Liquidity risk is defined as the possibility of potential loss due to a temporary shortage in funds caused by a maturity mismatch or an unexpected capital outlay. Liquidity risk soars when funding rates rise, assets are sold below a normal price, or a good investment opportunity is missed.

(ii) Approach to liquidity risk management

The Bank manages its liquidity risks as follows:

Allowable limit for liquidity risk

- The allowable limit for liquidity risk sets LCR, NSFR and Mid- to long-term foreign currency fund management ratio
- The management standards with regards to the allowable limit for liquidity risk should be set using separate and stringent set ratios in accordance with the FSS guidelines.

<Measurement Methodology>

- LCR: (High quality liquid assets / Total net cash outflows over the next 30 calendar days) X 100

49. Risk Management, Continued

- NSFR: Available Stable Funding / Required Stable Funding X 100
- Mid- to long-term foreign currency fund management ratio: Foreign currency funding being repaid after 1 year / Foreign currency lending being collected after 1 year X 100

Early warning indicator

To identify prematurely and cope with worsening liquidity risk trends, the Bank has set up 15 indexes such as the "Foreign Exchange Stabilization Bond CDS Premium," and measures the trend monthly as a means for establishing the allowable liquidity risk limit complementary measures.

Stress-Test analysis and contingency plan

- The Bank evaluates the effects on the liquidity risk and identifies the inherent flaws. In the case where an unpredictable and significant liquidity crisis occurs, the Bank executes risk situation analysis quarterly based on crisis specific to the Bank, market risk and complex emergency, and reports to the Risk Management Committee for the Bank's solvency securitization.
- The Bank established detailed contingency plan to manage the liquidity risks at every risk situations.

(iii) Analysis on remaining contractual maturity of financial instruments

Remaining contractual maturity risks of non-derivative financial instruments including interest payment as of December 31, 2020 and 2019 are as follows:

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Financial assets:						
Cash and due from banks	₩ 9,137,776	91,051	464,395	760,273	21,263	10,474,758
Securities measured at FVTPL	136,016	124,287	915,490	1,883,117	8,107,999	11,166,909
Securities measured at FVOCI	553,784	1,025,117	4,845,370	11,070,430	13,737,878	31,232,579
Securities measured at amortized cost	—	—	210,000	570,000	—	780,000
Loans	9,232,537	13,540,396	56,829,822	60,814,868	14,671,105	155,088,728
Other financial assets	3,831,145	—	—	—	705,630	4,536,775
	₩22,891,258	14,780,851	63,265,077	75,098,688	37,243,875	213,279,749
Financial liabilities:						
Financial liabilities measured at FVTPL	₩ 49,541	—	500,167	605,760	238,914	1,394,382
Deposits	22,271,587	6,814,661	12,791,098	3,881,550	109,333	45,868,229
Borrowings	3,873,926	3,441,014	7,757,486	2,688,791	1,125,536	18,886,753
Debentures	4,822,104	10,036,440	45,530,833	70,427,784	7,428,100	138,245,261
Other financial liabilities	4,110,621	1,766,297	—	—	1,074,478	6,951,396
	₩35,127,779	22,058,412	66,579,584	77,603,885	9,976,361	211,346,021

49. Risk Management, Continued

	December 31, 2019					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Financial assets:						
Cash and due from banks	₩ 5,065,652	282,897	329,130	803,600	40,959	6,522,238
Securities measured at FVTPL	484,770	661,617	504,044	1,385,041	7,448,954	10,484,426
Securities measured at FVOCI	277,092	725,605	4,061,877	6,515,165	12,845,290	24,425,029
Securities measured at amortized cost	40,000	430,002	900,000	130,000	—	1,500,002
Loans	9,282,526	12,642,049	47,936,243	52,723,675	16,477,990	139,062,483
Other financial assets	4,043,265	—	—	—	698,865	4,742,130
	₩19,193,305	14,742,170	53,731,294	61,557,481	37,512,058	186,736,308
Financial liabilities:						
Financial liabilities measured at FVTPL	₩ 70,044	318,570	617,318	935,081	287,145	2,228,158
Deposits	16,302,374	4,719,336	10,402,593	3,112,615	122,435	34,659,353
Borrowings	2,761,940	5,156,150	8,125,070	2,923,577	1,197,682	20,164,419
Debentures	3,996,137	9,589,472	35,032,030	63,490,945	8,493,328	120,601,912
Other financial liabilities	4,335,854	2,128,782	—	—	634,148	7,098,784
	₩27,466,349	21,912,310	54,177,011	70,462,218	10,734,738	184,752,626

Remaining contractual maturity risks of derivative financial instruments as of December 31, 2020 and 2019 are as follows:

Net settlement of derivative financial instruments

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Trading purpose derivatives:						
Currency	₩ (2,240)	259	—	—	—	(1,981)
Interest rate	(12,099)	(8,965)	(21,956)	(154,170)	311,267	114,077
Hedging purpose derivatives:						
Interest rate	60,484	118,050	397,587	679,232	596,098	1,851,451
	₩ 46,145	109,344	375,631	525,062	907,365	1,963,547

49. Risk Management, Continued

	December 31, 2019					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Trading purpose derivatives:						
Currency	₩ 37	256	566	—	—	859
Interest rate	(5,662)	9,583	(66,977)	48,194	145,096	130,234
Stock	49	—	—	—	—	49
Hedging purpose derivatives:						
Interest rate	16,579	26,520	256,124	1,147,552	1,530,039	2,976,814
	₩11,003	36,359	189,713	1,195,746	1,675,135	3,107,956

Gross settlement of derivative financial instruments

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Trading purpose derivatives:						
Currency						
Inflow	₩ 41,628,937	28,120,676	70,926,683	68,814,581	7,423,977	216,914,854
Outflow	41,747,705	28,165,683	71,251,634	68,700,868	7,415,793	217,281,683
Hedging purpose derivatives:						
Currency						
Inflow	126,703	743,865	5,321,106	15,865,301	1,175,969	23,232,944
Outflow	235,842	868,872	5,398,633	16,129,256	1,162,943	23,795,546
Total inflow	₩ 41,755,640	28,864,541	76,247,789	84,679,882	8,599,946	240,147,798
Total outflow	₩ 41,983,547	29,034,555	76,650,267	84,830,124	8,578,736	241,077,229

49. Risk Management, Continued

	December 31, 2019					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Trading purpose derivatives:						
Currency						
Inflow	₩ 47,982,985	54,605,599	90,905,007	66,553,775	6,892,477	266,939,843
Outflow	48,107,220	54,610,094	90,954,368	66,361,083	6,944,885	266,977,650
Hedging purpose derivatives:						
Currency						
Inflow	206,431	239,439	3,909,213	16,077,393	1,357,557	21,790,033
Outflow	219,403	248,463	4,726,407	16,379,043	1,376,508	22,949,824
Total inflow	₩ 48,189,416	54,845,038	94,814,220	82,631,168	8,250,034	288,729,876
Total outflow	₩ 48,326,623	54,858,557	95,680,775	82,740,126	8,321,393	289,927,474

Remaining contractual maturity risks of guarantees and commitments as of December 31, 2020 and 2019 are as follows:

	December 31, 2020					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Guarantees	₩ 1,289,198	981,555	2,624,952	4,693,645	509,755	10,099,105
Commitments	73,583	79,569	762,853	1,751,963	42,194,766	44,862,734
	₩ 1,362,781	1,061,124	3,387,805	6,445,608	42,704,521	54,961,839

	December 31, 2019					
	Within 1 month	1~3 months	3~12 months	1~5 years	Over 5 years	Total
Guarantees	₩ 1,040,240	1,140,660	3,757,118	4,514,337	546,837	10,999,192
Commitments	70,984	80,021	839,470	2,293,423	29,752,646	33,036,544
	₩ 1,111,224	1,220,681	4,596,588	6,807,760	30,299,483	44,035,736

THE REPUBLIC OF KOREA

Land and History

Territory and Population

Located generally south of the 38th parallel on the Korean peninsula, The Republic of Korea covers about 38,000 square miles, approximately one-fourth of which is arable. The Republic has a population of approximately 51 million people. The country's largest city and capital, Seoul, has a population of about 10 million people.

Map of the Republic of Korea

Political History

Dr. Rhee Seungman, who was elected President in each of 1948, 1952, 1956 and 1960, dominated the years after the Republic's founding in 1948. Shortly after President Rhee's resignation in 1960 in response to student-led demonstrations, a group of military leaders headed by Park Chung Hee assumed power by coup. The military leaders established a civilian government, and the country elected Mr. Park as President in October 1963. President Park served as President until his assassination in 1979 following a period of increasing strife between the Government and its critics. The Government declared martial law and formed an interim

government under Prime Minister Choi Kyu Hah, who became the next President. After clashes between the Government and its critics, President Choi resigned, and General Chun Doo Hwan, who took control of the Korean army, became President in 1980.

In late 1980, the country approved, by national referendum, a new Constitution, providing for indirect election of the President by an electoral college and for certain democratic reforms, and shortly thereafter, in early 1981, re-elected President Chun.

Responding to public demonstrations in 1987, the legislature revised the Constitution to provide for direct election of the President. In December 1987, Roh Tae Woo won the presidency by a narrow plurality, after opposition parties led by Kim Young Sam and Kim Dae Jung failed to unite behind a single candidate. In February 1990, two opposition political parties, including the one led by Kim Young Sam, merged into President Roh's ruling Democratic Liberal Party.

In December 1992, the country elected Kim Young Sam as President. The election of a civilian and former opposition party leader considerably lessened the controversy concerning the legitimacy of the political regime. President Kim's administration reformed the political sector and deregulated and internationalized the Korean economy.

In December 1997, the country elected Kim Dae Jung as President. President Kim's party, the Millennium Democratic Party (formerly known as the National Congress for New Politics), formed a coalition with the United Liberal Democrats led by Kim Jong Pil, with Kim Jong Pil becoming the first prime minister in President Kim's administration. The coalition, which temporarily ended before the election held in April 2000, continued with the appointment of Lee Han Dong of the United Liberal Democrats as the Prime Minister in June 2000. The coalition again ended in September 2001.

In December 2002, the country elected Roh Moo Hyun as President. President Roh and his supporters left the Millennium Democratic Party in 2003 and formed a new party, the Uri Party, in November 2003. On August 15, 2007, 85 members of the National Assembly, previously belonging to the Uri Party, or the Democratic Party, formed the United New Democratic Party, or the UNDP. The Uri Party merged into the UNDP on August 20, 2007. In February 2008, the UNDP merged back into the Democratic Party. In December 2011, the Democratic Party merged with the Citizens Unity Party to form the Democratic United Party, which changed its name to the Democratic Party in May 2013.

In December 2007, the country elected Lee Myung-Bak as President. He commenced his term on February 25, 2008. On April 9, 2018, the Korean prosecutor's office indicted former President Lee on 16 counts of corruption, including bribery, abuse of power, embezzlement and other irregularities.

In December 2012, the country elected Park Geun-hye as President. She commenced her term on February 25, 2013. On March 10, 2017, the Constitutional Court unanimously upheld a parliamentary vote to impeach President Park, triggering her immediate dismissal, for a number of constitutional and criminal violations, including violation of the Constitution and abuse of power by allowing her confidant to exert influence on state affairs and allowing senior presidential aides to aid in her extortion from companies. On April 17, 2017, the Korean prosecutor's office indicted former President Park on charges of bribery, abuse of power and coercion, among others. In November 2018, the Seoul High Court sentenced former President Park to two years of prison term for illegally meddling in her party's candidate nominations ahead of parliamentary elections in 2016. Subsequently, after a series of trials, on January 14, 2021, the Supreme Court upheld the Seoul High Court's decision on July 10, 2020 to sentence her to 15 years in prison and assess a fine of ₩18 billion for her bribery charges, and five years in prison and ₩3.5 billion in forfeiture for her other charges.

A special election to elect a new President was held on May 9, 2017 and the country elected Moon Jae-in as President. He commenced his term on May 10, 2017. The Moon administration's key policy priorities include:

- investigating corruption involving high-ranking government officials, anti-corruption and reform of chaebol (Korean conglomerates);

- denuclearization of and establishing peace on the Korean Peninsula and enhancing Korea's core military strength in response to North Korea's nuclear capabilities;
- reducing fine dust emissions, closing old nuclear power plants and reexamining the construction of new nuclear power plants;
- creating new jobs, resolving youth unemployment and enacting laws prohibiting discrimination against non-regular workers;
- creating jobs for senior citizens, increasing basic pension and providing government subsidies for Alzheimer's disease treatment; and
- protecting small business owners and restricting establishment of large-scale stores and multi-complex shopping malls.

Government and Politics

Government and Administrative Structure

Governmental authority in the Republic is centralized and concentrated in a strong presidency. The President is elected by popular vote and can only serve one term of five years. The President chairs the State Council, which consists of the President, the prime minister, the deputy prime ministers, the respective heads of Government ministries and the ministers of state. The President can select the members of the State Council and appoint or remove all other Government officials, except for elected local officials.

The President can veto new legislation and take emergency measures in cases of natural disaster, serious fiscal or economic crisis, state of war or other similar circumstances. The President must promptly seek the concurrence of the National Assembly for any emergency measures taken and failing to do so automatically invalidates the emergency measures. In the case of martial law, the President may declare martial law without the consent of the National Assembly; provided, however, that the National Assembly may request the President to rescind such martial law.

The National Assembly exercises the country's legislative power. The Constitution and the Election for Public Offices Act provide for the direct election of about 84% of the members of the National Assembly and the distribution of the remaining seats proportionately among parties winning more than five seats in the direct election or receiving over 3% of the popular vote. National Assembly members serve four-year terms. The National Assembly enacts laws, ratifies treaties and approves the national budget. The executive branch drafts most legislation and submits it to the National Assembly for approval.

The country's judicial branch comprises the Supreme Court, the Constitutional Court and lower courts of various levels. The President appoints the Chief Justice of the Supreme Court and appoints the other Justices of the Supreme Court upon the recommendation of the Chief Justice. All appointments to the Supreme Court require the consent of the National Assembly. The Chief Justice, with the consent of the conference of Supreme Court Justices, appoints all the other judges in Korea. Supreme Court Justices serve for six years and all other judges serve for ten years. Other than the Chief Justice, justices and judges may be reappointed to successive terms.

The President formally appoints all nine judges of the Constitutional Court, but three judges must be designated by the National Assembly and three by the Chief Justice of the Supreme Court. Constitutional Court judges serve for six years and may be reappointed to successive terms.

Administratively, the Republic comprises eight provinces, one special autonomous province (Jeju), one special city (Seoul), six metropolitan cities (Busan, Daegu, Incheon, Gwangju, Daejeon and Ulsan) and one special autonomous city (Sejong). From 1961 to 1995, the national government controlled the provinces and the President appointed provincial officials. Local autonomy, including the election of provincial officials, was reintroduced in June 1995.

Political Parties

The 21st legislative general election was held on April 15, 2020 and the term of the National Assembly members elected in the 21st legislative general election commenced on May 30, 2020. Currently, there are three major political parties: The Democratic Party of Korea, or the DPK, the People Power Party, or the PPP and the Justice Party, or the JP.

As of June 23, 2021, the parties control the following number of seats in the National Assembly:

	DPK	PPP	JP	Others	Total
Number of seats	174	102	6	18	300

Relations with North Korea

Relations between the Republic and North Korea have been tense over most of the Republic's history. The Korean War began with the invasion of the Republic by communist forces from the north in 1950, which was repelled by the Republic and the United Nations forces led by the United States. Following a military stalemate, an armistice was reached establishing a demilitarized zone monitored by the United Nations in the vicinity of the 38th parallel in 1953.

North Korea maintains a military force estimated at more than a million regular troops, mostly concentrated near the northern side of the demilitarized zone, and approximately 7.6 million reserves. The Republic's military forces, composed of approximately 599,000 regular troops and 2.8 million reserves, maintain a state of military preparedness along the southern side of the demilitarized zone. In addition, the United States has maintained its military presence in the Republic since the signing of the armistice and currently has approximately 28,500 troops stationed in the Republic. The Republic and the United States share a joint command structure over their military forces in Korea. In October 2014, the United States and the Republic agreed to implement a conditions-based approach to the dissolution of their joint command structure at an appropriate future date, which would allow the Republic to assume the command of its own armed forces in the event of war on the Korean peninsula. Over the years, the Republic and the United States have entered into a series of Special Measures Agreements, or SMAs, which cover the Republic's contribution to the cost of maintaining the U.S. military presence in the Republic. In March 2021, the Republic and the United States entered into a new six-year SMA under which the Republic would increase its share of the cost of the American military presence in the Republic, subject to legislative approval.

The level of tension between the two Koreas has fluctuated and may increase abruptly as a result of current and future events. In particular, since the death of Kim Jong-il in December 2011, there has been increased uncertainty with respect to the future of North Korea's political leadership and concern regarding its implications for political and economic stability in the region. Kim Jong-il's third son, Kim Jong-eun, has assumed power as his father's designated successor.

In addition, there have been heightened security concerns in recent years stemming from North Korea's nuclear weapons and ballistic missile programs as well as its hostile military and other actions against Korea. Some of the significant incidents in recent years include the following:

- From time to time, North Korea has conducted ballistic missile tests. In February 2016, North Korea launched a long-range rocket in violation of its agreement with the United States as well as United Nations sanctions barring it from conducting launches that use ballistic missile technology. Despite international condemnation, North Korea released a statement that it intends to continue its rocket launch program and it conducted a series of ballistic missile tests in 2016 and 2017. In response, the United Nations Security Council issued unanimous statements condemning North Korea and agreeing to continue to closely monitor the situation and to take further significant measures, and in December 2017, unanimously passed a resolution extending existing sanctions that were imposed on North Korea.

- North Korea renounced its obligations under the Nuclear Non-Proliferation Treaty in January 2003 and conducted three rounds of nuclear tests between October 2006 and February 2013. In January 2016, North Korea conducted a fourth nuclear test, claiming that the test involved its first hydrogen bomb. In September 2016, North Korea conducted a fifth nuclear test, claiming to have successfully detonated a nuclear warhead that could be mounted on ballistic missiles. In September 2017, North Korea announced that it successfully conducted its sixth nuclear test by detonating a hydrogen bomb designed to be mounted on an intercontinental ballistic missile, which resulted in increased tensions in the region and elicited strong objections worldwide. In response to such tests (as well as North Korea's long-range ballistic missile program), the United Nations Security Council unanimously passed several rounds of resolutions condemning North Korea's actions and significantly expanding the scope of the sanctions applicable to North Korea, while the United States and the European Union also imposed additional sanctions on North Korea.
- In August 2015, two Korean soldiers were injured in a landmine explosion near the Korean demilitarized zone. Claiming the landmines were set by North Koreans, the Korean army re-initiated its propaganda program toward North Korea utilizing loudspeakers near the demilitarized zone. In retaliation, the North Korean army fired artillery rounds on the loudspeakers, resulting in the highest level of military readiness for both Koreas.
- In March 2010, a Korean naval vessel was destroyed by an underwater explosion, killing many of the crewmen on board. The Government formally accused North Korea of causing the sinking, while North Korea denied responsibility. Moreover, in November 2010, North Korea fired more than one hundred artillery shells that hit Korea's Yeonpyeong Island near the Northern Limit Line, which acts as the de facto maritime boundary between Korea and North Korea on the west coast of the Korean peninsula, causing casualties and significant property damage. The Government condemned North Korea for the attack and vowed stern retaliation should there be further provocation.

North Korea's economy also faces severe challenges, which may further aggravate social and political pressures within North Korea. Although bilateral summit meetings were held between Korea and North Korea in April and May 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 tension on the Korean peninsula will not escalate in the future or that such escalation will not have a material adverse impact on the Republic's economy and us. Any further increase in tension, which may occur, for example, if North Korea experiences a leadership crisis, high-level contacts between the Republic and North Korea break down or further military hostilities occur, could have a material adverse effect on the Republic's economy and us. Over the longer term, reunification of the two Koreas could occur. Reunification may entail a significant economic commitment by the Republic.

Foreign Relations and International Organizations

The Republic maintains diplomatic relations with most nations of the world, most importantly with the United States with which it entered into a mutual defense treaty and several economic agreements. The Republic also has important relationships with Japan and China, its largest trading partners together with the United States.

The Republic belongs to a number of supranational organizations, including:

- United Nations;
- the International Monetary Fund, or the IMF;
- the World Bank;
- the Asian Development Bank, or the ADB;
- the Multilateral Investment Guarantee Agency;
- the International Finance Corporation;

- the International Development Association;
- the African Development Bank;
- the European Bank for Reconstruction and Development;
- the Bank for International Settlements;
- the World Health Organization, or the WHO;
- the World Trade Organization, or the WTO;
- the International Atomic Energy Agency;
- the Inter-American Development Bank, or the IDB;
- the Organization for Economic Cooperation and Development, or the OECD; and
- the Asian Infrastructure Investment Bank.

The Economy

The following table sets forth information regarding certain of the Republic's key economic indicators for the periods indicated.

	As of or for the year ended December 31,				
	2016	2017	2018	2019	2020
	(billions of dollars and trillions of Won, except percentages)				
GDP Growth (at current prices)	5.0%	5.5%	3.1%	1.3%	0.3%[6]
GDP Growth (at chained 2015 year prices)	2.9%	3.2%	2.7%	2.3%	(1.0)%[6]
Inflation	1.0%	1.9%	1.5%	0.4%	0.5%
Unemployment[1]	3.7%	3.7%	3.8%	3.8%	4.0%
Trade Surplus[2]	$ 89.2	$ 95.2	$ 69.7	$ 38.9	$ 45.2
Foreign Currency Reserves	$ 371.1	$ 389.3	$ 403.7	$ 408.8	$ 443.1
External Liabilities[3]	$ 382.2	$ 412.0	$ 441.2	$ 467.0	$ 542.4[6]
Fiscal Balance	₩ 16.9	₩ 24.0	₩ 31.2	₩ 12.0	₩ (71.2)[6]
Direct Internal Debt of the Government[4] (as % of GDP[5])	34.2%	35.2%	35.6%	37.4%	44.2%[6]
Direct External Debt of the Government[4] (as % of GDP[5])	0.4%	0.4%	0.4%	0.4%	0.5%[6]

(1) Average for year.
(2) Derived from customs clearance statistics on a C.I.F. basis, meaning that the price of goods include insurance and freight cost.
(3) Calculated under the criteria based on the sixth edition of the Balance of Payment Manual published by the International Monetary Fund in December 2010.
(4) Does not include guarantees by the Government. See "—Debt—External and Internal Debt of the Government—Guarantees by the Government" for information on outstanding guarantees by the Government.
(5) At chained 2015 year prices.
(6) Preliminary.

Source: The Bank of Korea

Worldwide Economic and Financial Difficulties

In recent years, the global financial markets have experienced significant volatility as a result of, among other things:

- the ongoing outbreak of the COVID-19 pandemic caused by a new strain of coronavirus, as further described below;
- a deterioration in economic and trade relations between the United States and its major trading partners, including China;
- increased uncertainties resulting from the United Kingdom's exit from the European Union;
- financial and social difficulties affecting many governments worldwide, in particular in Latin America and Europe;
- escalations in trade protectionism globally and geopolitical tensions in East Asia and the Middle East;
- the slowdown of economic growth in China and other major emerging market economies;
- interest rate fluctuations as well as perceived or actual changes in policy rates by, or other monetary and fiscal policies set forth by, the U.S. Federal Reserve and other central banks;
- political and social instability in various countries in the Middle East, including Iraq, Syria and Yemen; and
- fluctuations in oil and commodity prices.

COVID-19, an infectious disease caused by severe acute respiratory syndrome coronavirus 2, has spread globally and was declared a "pandemic" by the WHO in March 2020. The global outbreak of the COVID-19 pandemic has led to significant global economic and financial disruptions, including an adverse impact on international trade and business activities. Although there have been mixed signs of recovery in the global economy resulting from the availability of COVID-19 vaccinations and gradual normalization of business activities, the extent to which the COVID-19 pandemic continues to impact the global economy will depend on future developments, including the scope and duration of the ongoing outbreak of the COVID-19 pandemic as well as the timeliness and effectiveness of actions taken by governmental authorities, central banks, healthcare providers and other third parties around the world in order to contain and mitigate the effects of COVID-19. The possibility of a global recession in major markets due to the impact of COVID-19, including discrepancies in vaccine rollout rates, continued decline in consumer confidence and weakened demand for face-to-face services, could cause significant volatility in the global economic and financial systems.

There has been significant volatility in global financial markets due to the COVID-19 pandemic in 2020 and in recent months. See "—The Financial System—Securities Markets". Declines in the index 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 and banks to raise capital. Moreover, the value of the Won relative to major foreign currencies in general and the U.S. dollar in particular has fluctuated widely throughout 2020 and 2021. A depreciation of the Won generally increases the cost of imported goods and services and the required amount of the Won revenue for Korean companies to service foreign currency-denominated debt.

In light of the high level of interdependence of the global economy, any of the foregoing developments could have a material adverse effect on the Korean economy and financial markets. In addition, in the event of difficult conditions in the global credit markets or a deterioration of the global economy in the future, the Korean economy could be adversely affected and Korean banks may be forced to fund their operations at a higher cost or may be unable to raise as much funding as they need to support their lending and other activities.

In addition to the global developments, domestic developments that could lead to or contribute to a material adverse effect on the Korean economy include, among other things, the following:

- a slowdown in consumer spending and depressed consumer sentiment due to the outbreak of infectious diseases, such as the ongoing outbreak of the COVID-19 pandemic discussed above and the outbreak of the Middle East Respiratory Syndrome, or MERS, in May 2015, and national tragedies, such as the sinking of the Sewol passenger ferry in April 2014, which led to the death of hundreds of passengers;
- increasing delinquencies and credit defaults by consumer and small- and medium-sized enterprise borrowers, which may occur due to, among others, the impact of the ongoing global outbreak of the COVID-19 pandemic;
- steadily rising household debt consisting of housing loans and merchandise credit, which increased to approximately Won 1,726.1 trillion as of December 31, 2020 from Won 843.2 trillion as of December 31, 2010, primarily due to increases in mortgage loans and purchases with credit cards;
- deterioration in economic or diplomatic relations between Korea and other countries resulting from territorial or trade disputes or disagreements in foreign policy (such as the ongoing trade disputes between Korea and Japan);
- a substantial increase in the Government's expenditures for (i) fiscal stimulus measures to provide emergency relief payments to households and emergency loans to corporations in need of funding due to the COVID-19 pandemic and (ii) pension and social welfare programs, due in part to an aging population (defined as the population of people aged 65 years or older) that accounts for approximately 15.7% of the Republic's total population as of December 31, 2020, an increase from 7.2% as of December 31, 2000, and is expected to surpass 20.3% in 2025 that, together, would lead to the Government's budget deficit;
- decreases in the market prices of Korean real estate; and
- the occurrence of severe health epidemics that affect the livestock industry.

The first confirmed case of the COVID-19 disease in Korea was announced in January 2020 and the subsequent spread of the disease has since resulted in more than 150,000 confirmed cases and the death of more than 2,000 people in Korea as of June 23, 2021. The Government has been implementing a number of measures in order to contain the spread of the COVID-19 disease, including, among others, a nationwide order for social distancing, implementation of strict self-isolation and quarantine measures for those who may be infected, or have a higher chance of being infected, and the closure of public facilities until the possibility of further contamination has subsided sufficiently. In addition, the Government has implemented the following measures, among others, in order to alleviate the adverse impact of the COVID-19 pandemic on the Korean economy and stabilize the financial markets:

- lowering of The Bank of Korea's policy rate from 1.25% to 0.75% in March 2020 and subsequently to 0.5% in May 2020 (See "—Monetary Policy—Interest Rates");
- execution of a bilateral currency swap agreement with the U.S. Federal Reserve for the provision of US$60 billion in exchange for the Republic's Won-denominated treasury bonds in March 2020, which agreement was renewed in July and December 2020;
- injection of cash into corporate and financial markets in the form of loans, guarantees and maturity extensions to eligible banks and financial institutions, small- and medium business enterprises, small merchants and self-employed business owners facing liquidity crises; and
- offer of emergency relief payments and expansion of social security contribution reliefs for those impacted by the COVID-19 pandemic, including underserved communities and the unemployed.

In February 2021, the Government began its COVID-19 vaccination campaign, and as of June 21, 2021, more than 15 million people, or approximately 29.0 per cent. of the Korean population, with priority given to

frontline health care professionals and eligible senior citizens, received at least one shot of the COVID-19 vaccine. The Government is continuing its efforts to secure enough COVID-19 vaccines to achieve herd immunity by the end of 2021.

In addition, as part of its efforts to prepare for the post-COVID-19 era, the Government officially announced its plans to pursue a "Korean New Deal" in July 2020. Under such initiative, the Government aims to expedite the Republic's recovery from the COVID-19 pandemic and pursue a digital and green transformation of the Korean economy and to strengthen employment and social safety nets through a total investment of ₩160 trillion and the creation of 1.9 million new jobs by 2025. In order to contain further spread of COVID-19 and to prevent the outbreak of similar epidemics in the future, the Government continues to cooperate actively with regional and international efforts to develop and implement various measures to combat such outbreaks.

As a result of the ongoing impact of the COVID-19 pandemic on the Korean and global economies and financial markets, as well as factors such as fluctuations in oil and commodity prices, interest rates and exchange rates, higher unemployment, lower consumer confidence, stock market volatility, changes in fiscal and monetary policies and continued tensions with North Korea, the outlook for the Republic's economy and its financial services sector in 2021 and for the foreseeable future remains highly uncertain.

Gross Domestic Product

GDP measures the market value of all final goods and services produced within a country for a given period and reveals whether a country's productive output rises or falls over time. Economists present GDP in both current market prices and "real" or "inflation-adjusted" terms. In March 2009, the Republic adopted a method known as the "chain-linked" measure of GDP, replacing the previous fixed-base, or "constant" measure of GDP, to show the real growth of the aggregate economic activity, as recommended by the System of National Accounts 1993. GDP at current market prices values a country's output using the actual prices of each year, whereas the "chain-linked" measure of GDP is compiled by using "chained indices" linking volume growth between consecutive time periods. In March 2014, the Republic published a revised GDP calculation method by implementing the System of National Accounts 2008 and updating the reference year from 2005 to 2010 to align Korean national accounts statistics with the recommendations of the new international standards for compiling national economic accounts and to maintain comparability with other nations' accounts. The main components of these revisions include, among other things, (i) recognizing expenditures for research and development and creative activity for the products of entertainment, literary and artistic originals as fixed investment, (ii) incorporating a wide array of new and revised source data such as the economic census, the population and housing census and 2010 benchmark input-output tables, which provide thorough and detailed information on the structure of the Korean economy, (iii) developing supply-use tables, which provide a statistical tool for ensuring consistency among the production, expenditure and income approaches to measuring GDP and (iv) recording merchandise trade transactions based on ownership changes rather than movements of goods across the national border. The Republic has updated the reference year from 2010 to 2015 in July 2019 to better align Korean national accounts statistics with the recommendations of the previously implemented System of National Accounts 2008 and to maintain comparability with other countries' accounts.

The following table sets out the composition of the Republic's GDP at current market and chained 2015 year prices and the annual average increase in the Republic's GDP.

Gross Domestic Product

	2016	2017	2018	2019[1]	2020[1]	As % of GDP 2020[1]
			(billions of Won)			
Gross Domestic Product at Current Market Prices:						
Private	834,804.8	872,791.4	908,273.7	931,669.5	894,057.1	46.5
Government	265,295.2	283,045.8	305,513.0	329,295.5	349,705.1	18.2
Gross Capital Formation	524,717.6	592,711.4	592,858.4	601,581.4	608,938.7	31.6
Exports of Goods and Services	698,621.0	751,428.5	788,279.0	766,602.0	710,073.6	36.9
Less Imports of Goods and Services	(582,659.1)	(664,278.8)	(701,150.7)	(710,990.2)	(638,551.8)	(33.2)
Statistical Discrepancy	0.0	0.0	(276.4)	881.5	230.2	0.0
Expenditures on Gross Domestic Product	1,740,779.6	1,835,698.2	1,893,497.0	1,919,039.9	1,924,452.9	100.0
Net Factor Income from the Rest of the World	6,363.9	7,482.6	4,955.7	16,675.3	15,895.2	0.8
Gross National Income[2]	1,747,143.5	1,843,180.9	1,898,452.7	1,935,715.2	1,940,348.1	100.8
Gross Domestic Product at Chained 2015 Year Prices:						
Private	825,676.2	848,589.3	872,304.4	890,167.7	846,311.9	46.2
Government	261,162.3	271,428.7	286,644.8	304,760.3	319,816.1	17.5
Gross Capital Formation	520,296.3	576,996.7	566,376.1	555,494.6	557,762.5	30.5
Exports of Goods and Services	729,684.8	747,783.5	773,752.6	790,874.0	771,424.2	42.1
Less Imports of Goods and Services	(630,266.6)	(686,089.2)	(691,374.1)	(693,412.8)	(667,263.1)	(36.4)
Statistical Discrepancy	327.1	(1,130.3)	(2,511.7)	(1,429.8)	(600.8)	0.0
Expenditures on Gross Domestic Product[3]	1,706,880.3	1,760,811.5	1,807,735.9	1,848,958.5	1,831,249.8	100.0
Net Factor Income from the Rest of the World in the Terms of Trade	6,177.2	7,084.6	4,519.5	15,335.4	14,716.2	0.8
Trading Gains and Losses from Changes in the Terms of Trade	23,569.7	25,915.5	3,272.8	(40,224.9)	(26,921.1)	(1.5)
Gross National Income[4]	1,736,627.2	1,793,818.4	1,815,558.4	1,824,136.5	1,819,051.7	99.3
Percentage Increase (Decrease) of GDP over Previous Year:						
At Current Prices	5.0	5.5	3.1	1.3	0.3	
At Chained 2015 Year Prices	2.9	3.2	2.7	2.3	(1.0)	

(1) Preliminary.

(2) GDP plus net factor income from the rest of the world is equal to the Republic's gross national income.

(3) Under the "chain-linked" measure of GDP, the components of GDP will not necessarily add up to the total GDP.

(4) Under the "chain-linked" measure of Gross National Income, the components of Gross National Income will not necessarily add up to the total Gross National Income.

Source: The Bank of Korea

The following table sets out the Republic's GDP by economic sector at current market prices:

Gross Domestic Product by Economic Sector
(at current market prices)

	2016	2017	2018	2019(1)	2020(1)	As % of GDP 2020(1)
			(billions of Won)			
Industrial Sectors:	629,410.8	672,178.8	680,553.1	661,196.9	665,076.9	34.6
Agriculture, Forestry and Fishing	32,361.7	33,974.3	34,528.9	31,134.9	33,833.2	1.8
Manufacturing, Mining and Quarrying	461,198.3	496,993.7	506,854.7	487,889.2	481,935.0	25.0
Mining and Quarrying	2,367.7	2,348.8	2,247.7	1,943.6	1,855.1	0.1
Manufacturing	458,830.6	494,644.9	504,607.0	485,945.6	480,079.9	24.9
Electricity, Gas and Water Supply	44,307.8	40,014.2	36,813.2	36,580.7	42,698.9	2.2
Construction	91,543.0	101,196.6	102,356.3	105,592.1	106,609.8	5.5
Services:	963,671.9	1,006,839.9	1,049,864.7	1,095,424.2	1,097,300.8	57.0
Wholesale and Retail Trade, Accommodation and Food Services	169,240.8	175,124.9	180,661.0	180,358.0	168,030.4	8.7
Transportation and Storage	58,803.1	58,283.7	57,088.1	59,949.6	55,081.9	2.9
Finance and Insurance	89,593.7	96,983.7	104,336.2	104,718.6	109,715.2	5.7
Real Estate	128,539.4	133,152.6	135,890.3	142,735.8	146,737.3	7.6
Information and Communication	74,469.7	76,712.2	79,242.9	82,602.9	85,664.1	4.5
Business Activities	147,218.4	154,495.4	161,832.1	175,225.1	179,329.0	9.3
Public Administration, Defense and Social Security	100,787.1	107,325.6	115,086.1	122,162.4	129,769.1	6.7
Education	84,528.3	87,880.4	90,933.2	93,717.9	92,017.9	4.8
Human Health and Social Work	68,704.8	74,706.8	80,937.0	88,588.1	92,372.2	4.8
Cultural and Other Services	41,786.5	42,174.6	43,857.8	45,365.8	38,583.7	2.0
Taxes Less Subsidies on Products	147,696.8	156,679.6	163,079.3	162,418.6	162,075.2	8.4
Gross Domestic Product at Current Market Prices	1,740,779.6	1,835,698.2	1,893,497.0	1,919,039.9	1,924,452.9	100.0
Net Factor Income from the Rest of the World	6,363.9	7,482.6	4,955.7	16,675.3	15,895.2	0.8
Gross National Income at Current Market Price	1,747,143.5	1,843,180.9	1,898,452.7	1,935,715.1	1,940,348.1	100.8

(1) Preliminary.

Source: The Bank of Korea

The following table sets out the Republic's GDP per capita:

Gross Domestic Product per capita
(at current market prices)

	2016	2017	2018	2019(1)	2020(1)
GDP per capita (thousands of Won)	33,988	35,740	36,782	37,112	37,166
GDP per capita (U.S. dollar)	29,287	31,605	33,429	31,838	31,495
Average Exchange Rate (in Won per U.S. dollar)	1,160.5	1,130.8	1,100.3	1,165.7	1,180.1

(1) Preliminary.

Source: The Bank of Korea

The following table sets out the Republic's Gross National Income, or GNI, per capita:

Gross National Income per capita
(at current market prices)

	2016	2017	2018	2019(1)	2020(1)
GNI per capita (thousands of Won)	34,112	35,886	36,930	37,435	37,473
GNI per capita (U.S. dollar)	29,394	31,734	33,564	32,115	31,755
Average Exchange Rate (in Won per U.S. dollar)	1,160.5	1,130.8	1,100.3	1,165.7	1,180.1

(1) Preliminary.

Source: The Bank of Korea

The following table sets out the Republic's GDP by economic sector:

Gross Domestic Product by Economic Sector
(at chained 2015 year prices)

	2016	2017	2018	2019[1]	2020[1]	As % of GDP 2020[1]
			(billions of Won)			
Industrial Sectors:	615,346.0	640,516.9	654,072.8	658,741.5	654,911.0	35.8
Agriculture, Forestry and Fishing	31,353.2	32,059.8	32,540.4	32,859.2	31,736.3	1.7
Manufacturing, Mining and Quarrying	453,590.20	470,274.80	485,854.0	491,476.4	486,950.5	26.6
Mining and Quarrying	2,296.0	2,204.5	2,030.9	1,863.6	1,844.4	0.1
Manufacturing	451,294.2	468,070.3	483,823.1	489,612.8	485,106.1	26.5
Electricity, Gas and Water Supply	41,262.6	43,813.8	45,116.2	44,921.8	47,527.2	2.6
Construction	89,140.0	94,368.5	90,562.2	89,484.1	88,697.0	4.8
Services:	948,419.20	973,106.40	1,003,834.7	1,039,879.8	1,027,498.5	56.1
Wholesale and Retail Trade, Accommodation and Food Services	164,704.5	167,746.5	171,599.5	174,419.9	164,427.5	9.0
Transportation and Storage	58,713.7	60,289.1	61,888.5	62,746.9	52,879.1	2.9
Finance and Insurance	89,948.0	93,709.2	98,999.7	103,386.2	111,858.4	6.1
Real Estate	126,461.1	129,307.2	132,057.6	136,593.8	138,777.0	7.6
Information and Communication	73,517.0	75,814.3	78,941.7	82,473.3	83,786.7	4.6
Business Activities	145,077.1	147,949.8	150,522.3	157,790.8	156,895.7	8.6
Public Administration, Defense and Social Security	98,023.2	100,722.8	104,100.3	108,219.5	112,664.5	6.2
Education	83,160.6	84,806.1	86,440.9	87,493.6	85,356.6	4.7
Human Health and Social Work	67,974.6	72,330.1	78,160.0	85,046.7	86,055.3	4.7
Cultural and Other Services	40,839.4	40,495.8	41,218.1	41,709.1	34,797.7	1.9
Taxes Less Subsidies on Products	143,115.2	147,105.4	149,966.5	150,812.7	149,232.4	8.1
Gross Domestic Product[2]	1,706,880.3	1,760,811.5	1,807,735.9	1,848,958.5	1,831,249.8	100.0

(1) Preliminary.

(2) Under the "chain-linked" measure of GDP, the components of GDP will not necessarily add up to the total GDP.

Source: The Bank of Korea

GDP growth in 2016 was 2.9% at chained 2015 year prices, as aggregate private and general government consumption expenditures increased by 3.0%, gross domestic fixed capital formation increased by 6.6% and exports of goods and services increased by 2.4%, which more than offset an increase in imports of goods and services by 5.2%, each compared with 2015.

GDP growth in 2017 was 3.2% at chained 2015 year prices, as aggregate private and general government consumption expenditures increased by 3.1%, gross domestic fixed capital formation increased by 9.8% and exports of goods and services increased by 2.5%, which more than offset an increase in imports of goods and services by 8.9%, each compared with 2016.

GDP growth in 2018 was 2.7% at chained 2015 year prices, as aggregate private and general government consumption expenditures increased by 3.5% and exports of goods and services increased by 3.5%, which more than offset a decrease in gross domestic fixed capital formation by 2.4% and an increase in imports of goods and services by 0.8%, each compared with 2017.

GDP growth in 2019 was 2.3% at chained 2015 year prices, as aggregate private and general government consumption expenditures increased by 3.1%, exports of goods and services increased by 2.2% and imports of goods and services decreased by 0.3%, which more than offset a decrease in gross domestic fixed capital formation by 2.9%, each compared with 2018.

Based on preliminary data, GDP in 2020 contracted by 1.0% at chained 2015 year prices, primarily due to a 5.0% decrease in private consumption expenditures and a 2.5% decrease in exports of goods and services, which were offset in part by a 5.0% increase in general government consumption expenditures, a 2.6% increase in gross domestic fixed capital formation and a 3.8% decrease in imports of goods and services, each compared with 2019. The contraction of the Republic's GDP in 2020 was primarily due to the ongoing global outbreak of the COVID-19 pandemic.

Based on preliminary data, GDP growth in the first quarter of 2021 was 1.9% at chained 2015 year prices, as exports of goods and services increased by 5.1%, gross domestic fixed capital formation increased by 12.4% and aggregate private and general government consumption expenditures increased by 1.5%, which more than offset an increase in imports of goods and services by 4.1%, each compared with the corresponding period of 2020.

If the COVID-19 pandemic is prolonged, the Republic's GDP may continue to be adversely affected in 2021.

Principal Sectors of the Economy

Industrial Sectors

The following table sets out production indices for the principal industrial products of the Republic and their relative contribution to total industrial production:

Industrial Production
(2015 = 100)

	Index Weight[1]	2016	2017	2018	2019	2020[2]
Industries	10,000.0	102.2	104.8	106.3	106.7	106.3
Mining and Manufacturing	9,517.1	102.3	104.6	106.1	106.5	106.2
Mining	32.6	103.4	100.2	89.5	85.4	84.1
Manufacturing	9,484.5	102.3	104.7	106.1	106.6	106.3
Food Products	560.0	102.7	102.9	104.1	108.0	109.4
Beverage Products	141.6	103.7	105.7	105.4	103.8	100.3
Tobacco Products	63.2	113.0	122.7	111.1	121.1	126.5
Textiles	135.0	98.5	95.2	88.7	83.5	74.7
Wearing Apparel, Clothing Accessories and Fur Articles	103.9	96.8	95.9	93.6	87.4	70.1
Tanning and Dressing of Leather, Luggage and Footwear	28.6	92.5	82.0	82.8	71.5	49.4
Wood and Products of Wood and Cork (Except Furniture)	36.6	99.3	103.7	95.3	87.0	85.5
Pulp, Paper and Paper Products	162.2	99.4	97.5	97.0	95.6	93.7
Printing and Reproduction of Recorded Media	52.5	101.3	102.0	100.4	95.3	95.4
Coke, hard-coal and lignite fuel briquettes and Refined Petroleum Products	163.1	106.9	114.8	117.0	115.0	107.8
Chemicals and Chemical Products	883.8	105.5	109.1	111.6	110.1	106.8
Pharmaceuticals, Medicinal Chemicals and Botanical Products	273.8	109.8	118.5	128.1	131.6	142.8
Rubber and Plastic Products	504.7	100.6	99.9	95.1	93.3	87.5
Non-metallic Minerals	258.8	109.0	111.2	107.2	104.3	96.7
Basic Metals	621.0	101.9	102.9	100.1	97.8	91.7
Fabricated Metal Products	575.2	102.1	96.6	88.9	87.5	80.3
Electronic Components, Computer, Radio, Television and Communication Equipment and Apparatuses	1,844.5	105.1	112.6	125.9	132.0	147.7
Medical, Precision and Optical Instruments, Watches and Clocks	370.9	101.1	119.5	136.1	121.1	125.8
Electrical Equipment	513.1	103.5	106.6	106.5	109.6	108.7
Other Machinery and Equipment	819.2	101.6	115.4	111.8	105.2	109.0
Motor Vehicles, Trailers and Semitrailers	981.6	97.6	95.1	93.9	93.4	84.1
Other Transport Equipment	283.5	88.8	68.0	61.6	72.3	70.1
Furniture	60.1	106.2	109.5	101.9	99.9	106.8
Other Products	47.6	104.4	108.2	102.7	108.0	101.7
Electricity, Gas	482.9	100.8	106.3	110.3	108.6	106.6
Total Index	10,000.0	102.2	104.8	106.3	106.7	106.3

(1) Index weights were established on the basis of an industrial census in 2015 and reflect the average annual value added by production in each of the classifications shown, expressed as a percentage of total value added in the mining, manufacturing and electricity and gas industries in that year.

(2) Preliminary.

Source: The Bank of Korea; Korea National Statistical Office

Industrial production increased by 2.2% in 2016, primarily due to increased domestic consumption. Industrial production increased by 2.5% in 2017, primarily due to increased domestic consumption and exports.

Industrial production increased by 1.4% in 2018, primarily due to increased domestic consumption and exports. Industrial production increased by 0.4% in 2019, primarily due to increased domestic consumption. Based on preliminary data, industrial production decreased by 0.4% in 2020, primarily due to decreased domestic consumption and exports resulting from the COVID-19 pandemic.

Manufacturing

The manufacturing sector increased production by 2.3% in 2016 and by 2.3% in 2017, primarily due to increased demand for consumer electronics products, electronic components (including semiconductors), communication equipment and chemical products, which more than offset decreased demand for motor vehicles, trailers and semitrailers. The manufacturing sector increased production by 1.3% in 2018, primarily due to increased demand for consumer electronics products and electronic components (including semiconductors). The manufacturing sector increased production by 0.5% in 2019, primarily due to increased demand for consumer electronics products and electronic components (including semiconductors). Based on preliminary data, the manufacturing sector decreased production by 0.3% in 2020, primarily due to decreased demand for automobiles.

Automobiles. In 2016, automobile production decreased by 7.2% and export sales volume recorded a decrease of 11.8%, compared with 2015, primarily due to the slowdown of the global economy, and domestic sales volume recorded an increase of 1.0%, compared with 2015, primarily due to the reduction of individual consumption tax on cars. In 2017, automobile production decreased by 2.7%, domestic sales volume recorded a decrease of 2.5% and exports sales volume recorded a decrease of 3.5%, compared with 2016, primarily due to decreased domestic production of automobiles resulting mainly from partial strikes by unionized workers of automobile manufacturers, increased overseas production and decreased exports to the United States and China. In 2018, automobile production decreased by 2.1%, domestic sales volume recorded a decrease of 0.5% and exports sales volume recorded a decrease of 3.2%, compared with 2017, primarily due to decreased domestic production of automobiles resulting mainly from partial strikes by unionized workers of automobile manufacturers and the restructuring of GM Korea's production units and decreased exports to countries in South America and the Middle East. In 2019, automobile production decreased by 1.9%, domestic sales volume recorded a decrease of 1.8% and export sales volume recorded a decrease of 2.0%, compared with 2018, primarily due to decreased domestic production of automobiles resulting mainly from partial strikes by unionized workers of automobile manufacturers, increased overseas production, decreased domestic demand for automobiles and decreased demand for automobiles in China. Based on preliminary data, in 2020, automobile production decreased by 11.2% and export sales volume recorded a decrease of 21.4%, compared with 2019, primarily due to a general decline in global demand for automobiles caused by the COVID-19 pandemic, which outpaced a 4.7% increase in domestic sales volume from 2019 to 2020, primarily due to increased domestic demand for automobiles.

Electronics. In 2016, electronics production amounted to ₩309,016 billion, a decrease of 2.4% from the previous year, and exports amounted to US$162.5 billion, a decrease of 6.0% from the previous year, primarily due to continued adverse global economic conditions and the expansion of overseas production. In 2016, export sales of semiconductor memory chips constituted approximately 12.6% of the Republic's total exports. In 2017, electronics production amounted to ₩342,755 billion, an increase of 10.9% from the previous year, and exports amounted to US$197.6 billion, an increase of 21.6% from the previous year, primarily due to increases in demand for semiconductors, organic light-emitting diode, or OLED, display panels and computers. In 2017, export sales of semiconductor memory chips constituted approximately 17.4% of the Republic's total exports. In 2018, electronics production amounted to ₩365,548 billion, an increase of 6.6% from the previous year, and exports amounted to US$220.3 billion, an increase of 11.5% from the previous year, primarily due to increases in demand for semiconductors and lithium-ion batteries. In 2018, export sales of semiconductor memory chips constituted approximately 21.2% of the Republic's total exports. In 2019, electronics production amounted to ₩322,729 billion, a decrease of 11.7% from the previous year, and exports amounted to US$176.9 billion, a decrease of 19.7% from the previous year, primarily due to a significant decrease in semiconductor prices. In 2019, export sales of semiconductor memory chips constituted approximately 17.6% of the Republic's total

exports. Based on preliminary data, in 2020, electronic production amounted to ₩332,084 billion, an increase of 2.9% from the previous year, and exports of electronics amounted to US$183.6 billion, an increase of 3.8% from the previous year, primarily due to an increase in demand for semiconductors, computers and other electronic apparatuses. In 2020, export sales of semiconductor memory chips constituted approximately 19.5% of the Republic's total exports.

Iron and Steel. In 2016, crude steel production totaled 68.6 million tons, a decrease of 1.6% from 2015, and export sales volume of iron and steel products decreased by 1.8%, primarily due to intensified export competition and adverse conditions in the global shipbuilding and construction industries, but domestic sales volume of iron and steel products increased by 2.2%, primarily due to the recovery of the domestic construction industry. In 2017, crude steel production totaled 71.1 million tons, an increase of 3.7% from 2016, and export sales volume of iron and steel products increased by 2.3%, primarily due to an increase in global demand for crude steel products but domestic sales volume of iron and steel products decreased by 1.2%, primarily due to adverse conditions in the domestic shipbuilding and automobile industries. In 2018, crude steel production totaled 72.5 million tons, an increase of 1.9% from 2017, primarily due to the recovery of the domestic shipbuilding industry, but export sales volume of iron and steel products decreased by 3.9%, primarily due to restrictions on imports of steel products imposed by the United States, Canada and the European Union. In 2019, crude steel production totaled 71.4 million tons, a decrease of 1.5% from 2018, primarily due to adverse conditions in the construction and shipbuilding industries, and export sales volume of iron and steel products decreased by 0.2%, primarily due to continued restrictions on imports of steel products imposed by the United States, Canada and the European Union. Based on preliminary data, in 2020, crude steel production totaled 67.1 million tons, a decrease of 6.0% from 2019, primarily due to adverse conditions in the construction and shipbuilding industries in light of the COVID-19 pandemic, and export sales volume of iron and steel products decreased by 4.9%, primarily due to a decrease in global demand for crude steel products resulting from the COVID-19 pandemic.

Shipbuilding. In 2016, the Republic's shipbuilding orders amounted to approximately 2 million compensated gross tons, a decrease of 81.8% compared to 2015, primarily due to the continued adverse conditions in the domestic and global shipbuilding industry. In 2017, the Republic's shipbuilding orders amounted to approximately 8 million compensated gross tons, an increase of 300% compared to 2016, primarily due to increased demand for LNG carriers, bulk carriers and container carriers. In 2018, the Republic's shipbuilding orders amounted to approximately 13 million compensated gross tons, an increase of 62.5% compared to 2017, primarily due to increased demand for LNG carriers, oil tankers and container carriers. In 2019, the Republic's shipbuilding orders amounted to approximately 9 million compensated gross tons, a decrease of 30.8% compared to 2018, primarily due to decreased demand for container carriers and bulk carriers, which more than offset increased demand for LNG carriers. Based on preliminary data, in 2020, the Republic's shipbuilding orders amounted to approximately 8 million compensated gross tons, a decrease of 11.1% compared to 2019, primarily due to the adverse conditions in the domestic and global shipbuilding industry resulting from the COVID-19 pandemic.

Agriculture, Forestry and Fisheries

The Government's agricultural policy has traditionally focused on:

- grain production;
- development of irrigation systems;
- land consolidation and reclamation;
- seed improvement;
- mechanization measures to combat drought and flood damage; and
- increasing agricultural incomes.

Recently, however, the Government has increased emphasis on cultivating profitable crops and strengthening international competitiveness as a result of the continued opening of the domestic agricultural market.

In 2016, rice production decreased 2.3% from 2015 to 4.2 million tons. In 2017, rice production decreased 5.3% from 2016 to 4.0 million tons. In 2018, rice production decreased 2.5% from 2017 to 3.9 million tons. In 2019, rice production decreased 5.1% from 2018 to 3.7 million tons. In 2020, rice production decreased 5.4% from 2019 to 3.5 million tons. Due to limited crop yields resulting from geographical and physical constraints, the Republic depends on imports for certain basic foodstuffs.

The Government is seeking to develop the fishing industry by encouraging the building of large fishing vessels and modernizing fishing equipment, marketing techniques and distribution outlets.

In 2016, the agriculture, forestry and fisheries industry decreased by 5.6% compared to 2015, primarily due to unfavorable weather conditions and a decrease in fishing catch. In 2017, the agriculture, forestry and fisheries industry increased by 2.3% compared to 2016, primarily due to an increase in aquafarming production. In 2018, the agriculture, forestry and fisheries industry increased by 0.2% compared to 2017, primarily due to an increase in livestock production. In 2019, the agriculture, forestry and fisheries industry increased by 2.3% compared to 2018, primarily due to an increase in farming and livestock production. Based on preliminary data, in 2020, the agriculture, forestry and fisheries industry decreased by 3.4% compared to 2019, primarily due to a decrease in farming and livestock production.

Construction

In 2016, the construction industry increased by 9.8% compared to 2015, primarily due to an increase in the construction of residential and commercial buildings. In 2017, the construction industry increased by 5.9% compared to 2016, primarily due to an increase in the construction of residential and commercial buildings. In 2018, the construction industry decreased by 2.8% compared to 2017, primarily due to a decrease in the construction of residential and commercial buildings. In 2019, the construction industry decreased by 2.5% compared to 2018, primarily due to a continued decrease in the construction of residential buildings. Based on preliminary data, in 2020, the construction industry decreased by 0.9% compared to 2019, primarily due to a decrease in the construction of residential buildings.

Electricity and Gas

The following table sets out the Republic's dependence on imports for energy consumption:

Dependence on Imports for Energy Consumption

	Total Primary Energy Supply	Imports	Imports Dependence Ratio
	(millions of tons of oil equivalents[1], except ratios)		
2016	293.8	277.9	94.6
2017	302.1	284.0	94.0
2018	307.6	288.1	93.7
2019	303.1	283.4	93.5
2020[2]	290.1	273.6	94.3

(1) Conversion to tons of oil equivalents was calculated based on energy conversion factors under the Energy Act Enforcement Decree as amended in July 2017.

(2) Preliminary.

Source: Korea Energy Economics Institute; Korea National Statistical Office

Korea has almost no domestic oil or gas production and depends on imported oil and gas to meet its energy requirements. Accordingly, the international prices of oil and gas significantly affect the Korean economy. Any significant long-term increase in the prices of oil and gas will increase inflationary pressures in Korea and adversely affect the Republic's balance of trade.

To reduce its dependence on oil and gas imports, the Government has encouraged energy conservation and energy source diversification emphasizing nuclear energy. The following table sets out the principal primary sources of energy supplied in the Republic, expressed in oil equivalents and as a percentage of total energy consumption.

Primary Energy Supply by Source

	Coal		Petroleum		Nuclear		Others[1]		Total	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%	Quantity	%
	(millions of tons of oil equivalents[2], except percentages)									
2016	81,499	27.7	117,605	40.0	34,181	11.6	60,493	20.6	293,778	100.0
2017	86,177	28.5	119,400	39.5	31,615	10.5	64,874	21.5	302,066	100.0
2018	86,707	28.2	118,521	38.5	28,437	9.2	73,892	24.0	307,557	100.0
2019	82,147	27.1	117,314	38.7	31,079	10.3	72,553	23.9	303,092	100.0
2020[3]	72,348	24.9	110,322	38.0	34,119	11.8	73,337	25.3	290,126	100.0

(1) Includes natural gas, hydroelectric power and renewable energy.
(2) Conversion to tons of oil equivalents was calculated based on energy conversion factors under the Energy Act Enforcement Decree as amended in July 2017.
(3) Preliminary.

Source: Korea Energy Economics Institute; The Bank of Korea

The Republic's first nuclear power plant went into full operation in 1978 with a rated generating capacity of 587 megawatts. As of December 31, 2020, the Republic had 24 nuclear plants with a total estimated nuclear power installed generating capacity of 23,250 megawatts and four nuclear plants under construction. In December 2020, the Government released the Ninth Basic Plan which serves as the guideline for stable medium and long-term supply of electric power. The Ninth Basic Plan replaced and superseded the Eighth Basic Plan, which covered the period from 2017 to 2031 and focused on, among other things, (i) increasing efforts to address environmental and safety concerns, including reducing greenhouse gas emission and yellow dust, (ii) decreasing the portion of electricity supplied using nuclear and coal energy sources, (iii) increasing the portion of electricity supplied from renewable energy, in particular solar and wind power and (iv) promoting the replacement of coal with LNG as an energy source by reducing the gap in expenses incurred in using the respective fuel types, for example, by adjusting the consumption tax rates applicable to the respective fuel types. The objectives of the Ninth Basic Plan include, among other things, (i) changing energy policy to a safe and clean energy mix by reducing coal and nuclear power generation and increasing renewable energy, (ii) preparing implementation measures for further reduction of greenhouse gas, (iii) accelerating investments in renewable energy and expanding infrastructure for the transition to a low-carbon economy/society and (iv) improving the electricity market system to promote fair competition and lay the foundation for expansion of eco-friendly energy. Furthermore, the Ninth Basic Plan includes the following implementation measures: (i) six coal-fired generation plants will be retired by 2022, (ii) 24 other coal-fired generation plants will be retired and converted to LNG fuel use by 2034, (iii) domestic renewable energy generation capacity will be expanded to 77.8 gigawatts by 2034 to meet the target set in the Third Basic National Energy Plan and (iv) the extension of life of eleven nuclear generation units will not be granted and such units will be retired by 2034.

Services Sector

In 2016, the service industry increased by 2.9% compared to 2015 as the health and social work sector increased by 7.3%, the wholesale and retail trade, restaurants and hotels sector increased by 2.7% and the finance

and insurance sector increased by 1.9%, each compared with 2015. In 2017, the service industry increased by 2.6% compared to 2016 as the health and social work sector increased by 6.4%, the finance and insurance sector increased by 4.2% and the public administration and defense sector increased by 2.8%, each compared with 2016. In 2018, the service industry increased by 3.8% compared to 2017 as the health and social work sector increased by 8.2%, the finance and insurance sector increased by 5.6% and the public administration and defense sector increased by 3.4%, each compared with 2017. In 2019, the service industry increased by 2.9% compared to 2018 as the health and social work sector increased by 8.7%, the public administration and defense sector increased by 4.0% and the finance and insurance sector increased by 4.4%, each compared with 2018. Based on preliminary data, in 2020, the service industry decreased by 1.1% compared to 2019 as the wholesale and retail trade, accommodation and food services sector decreased by 5.7%, the transportation and storage sector decreased by 15.7% and the cultural and other services sector decreased by 16.6%, each compared with 2019, primarily due to the COVID-19 pandemic.

Prices, Wages and Employment

The following table shows selected price and wage indices and unemployment rates:

	Producer Price Index[1]	Increase (Decrease) Over Previous Year	Consumer Price Index[1]	Increase (Decrease) Over Previous Year	Wage Index[1][2]	Increase (Decrease) Over Previous Year	Unemployment Rate[1][3]
	(2015=100)	(%)	(2015=100)	(%)	(2015=100)	(%)	(%)
2016	98.2	(1.8)	101.0	1.0	104.2	4.2	3.7
2017	101.6	3.5	102.9	1.9	106.4	2.1	3.7
2018	103.5	1.9	104.5	1.5	113.6	6.8	3.8
2019	103.5	0.0	104.9	0.4	116.2	2.3	3.8
2020	103.0	(0.5)	105.4	0.5	115.5	(0.6)	4.0

(1) Average for year.
(2) Nominal wage index of average earnings in the manufacturing industry.
(3) Expressed as a percentage of the economically active population.

Source: The Bank of Korea; Korea National Statistical Office

In 2016, the inflation rate increased to 1.0%, primarily due to increases in agricultural and livestock product prices and private service fees, which more than offset a decrease in oil prices. In 2017, the inflation rate increased to 1.9%, primarily due to increases in the prices of agricultural and livestock products and oil. In 2018, the inflation rate decreased to 1.5%, primarily due to a slowdown in the growth rate of agricultural goods and oil prices. In 2019, the inflation rate decreased to 0.4%, primarily due to decreases in the prices of agricultural and livestock products and oil. In 2020, the inflation rate increased to 0.5%, primarily due to increases in agricultural and livestock product prices. Based on preliminary data, the inflation rate was 1.1% in the first quarter of 2021.

In 2016, the unemployment rate increased to 3.7%, primarily due to the continued sluggishness of the domestic economy. In 2017, the unemployment rate remained unchanged at 3.7%. In 2018, the unemployment rate increased to 3.8%, primarily due to the continued sluggishness of the domestic economy. In 2019, the unemployment rate remained constant at 3.8%. In 2020, the unemployment rate increased to 4.0%, primarily due to the COVID-19 pandemic. Based on preliminary data, the unemployment rate was 5.0% in the first quarter of 2021.

From 1992 to 2009, the economically active population of the Republic increased by approximately 24.8% to 24.3 million, while the number of employees increased by approximately 23.7% to 23.5 million. The economically active population over 15 years old as a percentage of the total over-15 population has remained between 61% and 63% over the past decade. Literacy among workers under 50 is almost universal. As of December 31, 2020, the economically active population of the Republic was 28.0 million and the number of employees was 26.9 million.

The following table shows selected employment information by industry and by gender:

	2016	2017	2018	2019	2020
	(all figures in percentages, except as indicated)				
Labor force (in thousands of persons)	26,409	26,725	26,822	27,123	26,904
Employment by Industry:					
Agriculture, Forestry and Fishing	4.9	4.8	5.0	5.1	5.4
Mining and Manufacturing	17.2	17.2	16.9	16.4	16.3
S.O.C & Services	77.9	78.0	78.1	78.5	78.3
Electricity, Transport, Communication and Finance	11.8	11.4	11.8	11.7	11.8
Business, Private & Public Service and Other Services	36.3	36.4	36.5	37.4	38.0
Construction	7.0	7.4	7.6	7.4	7.5
Wholesale & Retail Trade, Hotels and Restaurants	22.9	22.8	22.2	22.0	21.0
Total Employed	100.0	100.0	100.0	100.0	100.0
Employment by Gender:					
Male	57.6	57.5	57.3	57.0	57.2
Female	42.4	42.5	42.7	43.0	42.8
Total Employed	100.0	100.0	100.0	100.0	100.0

Source: The Bank of Korea

Pursuant to certain amendments to the Labor Standards Act that became effective on July 1, 2018, the maximum working hours of employees is in the process of being reduced from 68 hours per week to 52 hours per week, and the number of special industries that are exempt from restrictions on maximum working hours will be significantly reduced. This new maximum working hours restriction under the amended Labor Standards Act is in effect for workplaces with 300 or more workers from July 1, 2018, and has been extended to workplaces with 50 or more but fewer than 300 workers from January 1, 2020, and will further be extended to workplaces with five or more but fewer than 50 workers from July 1, 2021.

Approximately 12.5% of the Republic's workers were unionized as of December 31, 2019. Labor unrest in connection with demands by unionized workers for better wages and working conditions and greater job security occur from time to time in the Republic. Some of the significant incidents in recent years include the following:

- In September 2016, unionized subway and railroad workers launched a joint nationwide strike, the first in 22 years, demanding that the Government scrap its proposed merit pay system for subway and railroad workers.
- In October 2016, unionized workers at Hyundai Motor went on full strike, the first in 12 years, demanding higher wages, while unionized workers at Kia Corporation, or Kia, went on partial strike protesting the wage gap between workers at Kia and workers at Hyundai Motor.
- In September 2017, several thousand unionized workers at KBS and MBC, Korea's two largest television and radio broadcasters, went on strike, which lasted several months, to protest against alleged management interference in news coverage and unfair labor practices.
- In 2017, unionized workers at Hyundai Motor went on a series of partial strikes demanding higher wages and bonuses.
- In July 2018, unionized workers at Hyundai Heavy Industries went on full strike demanding higher wages.

- In May 2019, unionized bus drivers launched a nationwide strike seeking higher wages and increased manpower in time for the 52-hour work week that was implemented in July 2019.
- In September 2019, unionized workers at GM Korea went on full strike, the first in more than 20 years, demanding higher wages and protesting against GM Korea's restructuring plans.
- In October and November 2019, several thousand members of the National Railroad Workers' Union went on full strike demanding a normalization of wages and requesting the hiring of additional personnel.
- In October, November and December 2020, unionized workers at GM Korea went on partial strikes during wage and collective agreement negotiations.
- In November and December 2020, unionized workers at Kia went on partial strikes demanding higher wages, performance-based incentives and other benefits.

Actions such as these by labor unions may hinder implementation of the labor reform measures and disrupt the Government's plans to create a more flexible labor market. Although much effort is being expended to resolve labor disputes in a peaceful manner, there can be no assurance that further labor unrest will not occur in the future. Continued labor unrest in key industries of the Republic may have an adverse effect on the economy.

In 1997, the Korean Confederation of Trade Unions organized a political alliance, which led to the formation of the Democratic Labor Party in January 2000. The Democratic Labor Party merged with The New People's Participation Party and changed its name to The Unified Progressive Party, or the UPP, in December 2011. In October 2012, the UPP split and seven UPP members of the National Assembly and their supporters formed a new party, the Progressive Justice Party, which changed its name to the Justice Party in July 2013. In December 2014, the Constitutional Court ordered the dissolution of the UPP and the removal of the party's five lawmakers from the National Assembly for violating the Republic's Constitution after certain of its members were convicted of trying to instigate an armed rebellion and supporting North Korea. In the legislative general election held on April 13, 2016, the Justice Party won six seats in the National Assembly, and the members-elect began their four-year terms on May 30, 2016. As of December 31, 2020, the Justice Party held six seats in the National Assembly.

The Financial System

Structure of the Financial Sector

The Republic'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. The Government also strengthened confidentiality protection for private financial transactions.

In July 2007, the Korean National Assembly passed the Financial Investment Services and Capital Markets Act, or the FSCMA, under which various industry-based capital markets regulatory systems 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.

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 licensing 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 categorizes 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, the 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 future companies are subject to the same regulations, 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 license based on the FSCMA.

Banking Industry

The banking industry comprises commercial banks and specialized 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 the Republic since 1967 but provide a relatively small proportion of the country's banking services. As of December 31, 2020, there were six nationwide banks, six regional banks, two internet banks and 36 foreign banks with branches operating in the Republic.

Specialized banks meet the needs of specific sectors of the economy in accordance with Government policy; they are organized under, or chartered by, special laws. Specialized banks include (i) The Korea Development Bank, (ii) The Export-Import Bank of Korea, (iii) The Industrial Bank of Korea, (iv) SuHyup Bank and (v) NongHyup Bank. The Government has made capital contributions to three of these specialized banks as follows:

- The Korea Development Bank: the Government owns directly all of its paid-in capital and has made capital contributions since its establishment in 1954. Recent examples include the Government's

contributions to its capital of ₩308 billion in 2016, ₩395 billion in 2017, ₩170 billion in 2018, ₩555 billion in 2019 and ₩2,102.6 billion in 2020. Taking into account these capital contributions, its total paid-in capital was ₩20,766 billion as of December 31, 2020.

- The Export-Import Bank of Korea: the Government owns, directly and indirectly, all of its paid-in capital and has made capital contributions since its establishment in 1976. Recent examples include the Government's contributions to its capital of ₩1,620 billion in 2016, ₩1,417 billion in 2017, ₩0 billion in 2018, ₩56 billion in 2019 and ₩578 billion in 2020. Taking into account these capital contributions, its total paid-in capital was ₩12,449 billion as of December 31, 2020.
- The Industrial Bank of Korea: the Government owned, directly and indirectly, 66.0% of its common shares and all of its preferred shares as of December 31, 2020. The Government had owned all of the issued share capital of The Industrial Bank of Korea until 1994, but the Government's minimum share ownership requirement was repealed in 1997, and the Government has since periodically adjusted its ownership percentage in the Industrial Bank of Korea through transactions involving the purchase and sale of its common shares. In 2016, the Industrial Bank of Korea issued an aggregate of 3,576,857 new common shares to the Government for ₩40 billion in cash. In 2019, the Industrial Bank of Korea issued an aggregate of 17,178,164 new common shares to the Government for a total of ₩225 billion in cash. In 2020, the Industrial Bank of Korea issued an aggregate of 161,507,381 new common shares to the Government for a total of ₩1,266 billion in cash. In November 2020, the Industrial Bank of Korea acquired from the Government and cancelled an aggregate of 44,847,038 perpetual preferred shares that it had previously issued to the Government. Taking into account such transactions, its total paid-in capital was ₩4,183 billion as of December 31, 2020.

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 Financial Services Commission 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 as of the dates indicated.

	Total Loans	Non-Performing Assets[1]	Percentage of Total
	(trillions of won)		(percentage)
December 31, 2016	1,732.9	24.6	1.4
December 31, 2017	1,775.9	21.1	1.2
December 31, 2018	1,872.6	18.2	1.0
December 31, 2019	1,980.6	15.3	0.8
December 31, 2020[2]	2,171.7	13.9	0.6

(1) Assets classified as substandard or below.
(2) Preliminary.

Source: Financial Supervisory Service

In 2016, these banks posted an aggregate net profit of ₩3.0 trillion, compared to an aggregate net profit of ₩4.4 trillion in 2015, primarily due to increased loan loss provisions. In 2017, these banks posted an aggregate net profit of ₩11.2 trillion, compared to an aggregate net profit of ₩3.0 trillion in 2016, primarily due to decreased loan loss provisions and increased net interest income. In 2018, these banks posted an aggregate net profit of ₩15.6 trillion, compared to an aggregate net profit of ₩11.2 trillion in 2017, primarily due to increased net interest income and decreased loan loss provisions, which more than offset a decrease in net non-interest income. In 2019, these banks posted an aggregate net profit of ₩13.9 trillion, compared to an aggregate net profit of ₩15.6 trillion in 2018, primarily due to losses on investments in subsidiaries and associates in 2019 compared to gains on investments in subsidiaries and associates in 2018, which more than offset decreased loan

loss provisions. Based on preliminary data, in 2020, these banks posted an aggregate net profit of ₩12.3 trillion, compared to an aggregate net profit of ₩13.9 trillion in 2019, primarily due to increased loan loss provisions.

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 December 31, 2020, 79 mutual savings banks, 24 life insurance institutions, which includes joint venture life insurance institutions and wholly-owned subsidiaries of foreign life insurance companies, and eight credit card companies operated in the Republic.

Money Markets

In the Republic, the money markets consist of the call market and markets for a wide range of other short-term financial instruments, including treasury bills, monetary stabilization bonds, negotiable certificates of deposits, repurchase agreements and commercial paper.

Securities Markets

On January 27, 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., or the KOSDAQ, and the KOSDAQ Committee of the Korea Securities Dealers Association, which had formerly managed the KOSDAQ. There are three major markets operated by the Korea Exchange: the KRX KOSPI Market, the KRX KOSDAQ Market, and the KRX Derivatives Market. The Korea Exchange has two trading floors located in Seoul, one for the KRX KOSPI 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 Korea Composite Stock Price Index every ten seconds, which is an index of all equity securities listed on the Korea Exchange. The Korea Composite Stock Price Index is computed using the aggregate value method, whereby the market capitalizations of all listed companies are aggregated, subject to certain adjustments, and this aggregate is expressed as a percentage of the aggregate market capitalization of all listed companies as of the base date, January 4, 1980.

The following table shows the value of the Korea Composite Stock Price Index as of the dates indicated:

December 29, 2016	2,026.5
January 31, 2017	2,067.6
February 28, 2017	2,091.6
March 31, 2017	2,160.2
April 28, 2017	2,205.4
May 31, 2017	2,347.4
June 30, 2017	2,391.8
July 31, 2017	2,402.7
August 31, 2017	2,363.2
September 29, 2017	2,394.5
October 31, 2017	2,523.4
November 30, 2017	2,476.4
December 28, 2017	2,467.5
January 31, 2018	2,566.5
February 28, 2018	2,427.4
March 30, 2018	2,445.9
April 30, 2018	2,515.4
May 31, 2018	2,423.0
June 29, 2018	2,326.1
July 31, 2018	2,295.3
August 31, 2018	2,322.9
September 28, 2018	2,343.1
October 31, 2018	2,029.7
November 30, 2018	2,096.9
December 28, 2018	2,041.0
January 31, 2019	2,204.9
February 28, 2019	2,195.4
March 29, 2019	2,140.7
April 30, 2019	2,203.6
May 31, 2019	2,041.7
June 28, 2019	2,130.6
July 31, 2019	2,024.6
August 30, 2019	1,967.8
September 30, 2019	2,063.1
October 31, 2019	2,083.5
November 29, 2019	2,088.0
December 30, 2019	2,197.7
January 31, 2020	2,119.0
February 28, 2020	1,987.0
March 31, 2020	1,754.6
April 29, 2020	1,947.6
May 29, 2020	2,029.6
June 30, 2020	2,108.3
July 31, 2020	2,249.4
August 31, 2020	2,326.2
September 29, 2020	2,327.9
October 30, 2020	2,267.2
November 30, 2020	2,591.3
December 30, 2020	2,873.5
January 29, 2021	2,976.2
February 26, 2021	3,013.0
March 31, 2021	3,061.4
April 30, 2021	3,147.9
May 31, 2021	3,203.9

As liquidity and credit concerns and volatility in the global financial markets increased significantly since September 2008, there was a significant overall decline in the stock prices of Korean companies during the fourth quarter of 2008 and first half of 2009 and the index has fluctuated since then. In 2020 and in recent months, there was significant volatility in the stock prices of Korean companies due to deteriorating market conditions domestically and abroad due to the global outbreak of the COVID-19 pandemic. The index was 3,286.1 on June 24, 2021.

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 Financial Supervisory Service. The Financial Services Commission acts as the executive body over the Financial Supervisory Service. The Financial Services Commission reports to, but operates independently of, the Prime Minister's office.

The Ministry of Economy and Finance focuses on financial policy and foreign currency regulations. The Bank of Korea manages monetary policy focusing on price stabilization.

Deposit Insurance System

The Republic'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.

The Government 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, 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 Monetary Policy Committee 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 Monetary Policy Committee'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

On July 9, 2010, The Bank of Korea raised the policy rate to 2.25% from 2.0%, which was further raised to 2.5% on November 16, 2010, in response to signs of inflationary pressures and the continued growth of domestic economy. On January 13, 2011, The Bank of Korea raised the policy rate to 2.75%, which was further increased to 3.0% on March 10, 2011 and to 3.25% on June 10, 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% on July 12, 2012, which was further lowered to 2.75% on October 11, 2012, 2.5% on May 9, 2013, 2.25% on August 14, 2014, 2.0% on October 15, 2014, 1.75% on March 12, 2015, 1.5% on June 11, 2015 and 1.25% on June 9, 2016, in order to address the sluggishness of the global and domestic economy. On November 30, 2017, The Bank of Korea raised its policy rate to 1.5% from 1.25%, which was further raised to 1.75% on November 30, 2018, in response to signs of inflationary pressures and the continued growth of the global and domestic economy. The Bank of Korea lowered its policy rate to 1.5% from 1.75% on July 18, 2019 and to 1.25% from 1.5% on October 16, 2019 to address the sluggishness of the global and domestic economy. On March 16, 2020, The Bank of Korea further lowered its policy rate to 0.75% from 1.25%, which was further lowered to 0.5% on May 28, 2020, in response to deteriorating economic conditions resulting from the global outbreak of the COVID-19 pandemic.

With the deregulation of interest rates on banks' demand deposits on February 2, 2004, The Bank of Korea completed the interest rate deregulation based upon the "Four-Stage Interest Rate Liberalization 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 the Republic's money supply:

	December 31,				
	2016	**2017**	**2018**	**2019**	**2020**
			(billions of Won)		
Money Supply (M1)[(1)]	795,531.1	849,862.4	865,851.8	952,922.8	1,197,828.9
Quasi-money[(2)]	1,611,928.0	1,680,491.2	1,834,510.6	1,960,686.8	2,002,006.8
Money Supply (M2)[(3)]	2,407,459.1	2,530,353.6	2,700,362.4	2,913,609.6	3,199,835.7
Percentage Increase Over Previous Year	7.1%	5.1%	6.7%	7.9%	9.8%

(1) Consists of currency in circulation and demand and instant access savings deposits at financial institutions.
(2) Includes time and installment 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.

Source: The Bank of Korea

Exchange Controls

Authorized foreign exchange banks, as registered with the Ministry of Economy and Finance, handle foreign exchange transactions. The ministry has designated other types of financial institutions to handle foreign exchange transactions on a limited basis.

Korean laws and regulations generally require a report to either the Ministry of Economy and Finance, The Bank of Korea or authorized foreign exchange banks, as applicable, for issuances of international bonds and other instruments, overseas investments and certain other transactions involving foreign exchange payments.

In 1994 and 1995, the Government relaxed regulations of foreign exchange position ceilings and foreign exchange transaction documentation and created free Won accounts which may be opened by non-residents at Korean foreign exchange banks. The Won funds deposited into the free Won accounts may be converted into foreign currencies and remitted outside Korea without any governmental approval. In December 1996, after joining the OECD, the Republic freed the repatriation of investment funds, dividends and profits, as well as loan repayments and interest payments. The Government continues to reduce exchange controls in response to changes in the world economy, including the new trade regime under the WTO, anticipating that such foreign exchange reform will improve the Republic's competitiveness and encourage strategic alliances between domestic and foreign entities.

In September 1998, the National Assembly passed the Foreign Exchange Transactions Act, which became effective in April 1999 and has subsequently been amended numerous times. In principle, most currency and capital transactions, including, among others, the following transactions, have been liberalized:

- the investment in real property located overseas by Korean companies and financial institutions;
- the establishment of overseas branches and subsidiaries by Korean companies and financial institutions;
- the investment by non-residents in deposits and trust products having more than one year maturities; and
- the issuance of debentures by non-residents in the Korean market.

To minimize the adverse effects from further opening of the Korean capital markets, the Ministry of Economy and Finance is authorized to introduce a variable deposit requirement system to restrict the influx of short-term speculative funds.

The Government has also embarked on a second set of liberalization initiatives starting in January 2001, under which ceilings on international payments for Korean residents have been eliminated, including overseas travel expenses, overseas inheritance remittances and emigration expenses. Overseas deposits, trusts, acquisitions of foreign securities and other foreign capital transactions made by residents and the making of deposits in Korean currency by non-residents have also been liberalized. In line with the foregoing liberalization, measures will also be adopted to curb illegal foreign exchange transactions and to stabilize the foreign exchange market.

Effective as of January 1, 2006, the Government liberalized the regulations governing "capital transactions". The regulations provide that no regulatory approvals are required for any capital transactions. The capital transactions previously subject to approval requirements are now subject only to reporting requirements.

In January 2010, the Financial Supervisory Services released *FX Derivative Transactions Risk Management Guideline* to prevent over-hedging of foreign exchange risk by corporate investors. According to the guideline as amended in July 2010, if a corporate investor, other than a financial institution or a public enterprise, wishes to enter into a foreign exchange forward, option or swap agreement with a bank, the bank is required to verify whether the corporate investor's assets, liabilities or contracts face foreign exchange risks that could be mitigated by a foreign exchange forward, option or swap agreement. In addition, the bank is required to ensure that the corporate investor's risk hedge ratio, which is the ratio of the aggregate notional amount to the aggregate amount of risk, does not exceed 100%.

Foreign Exchange

The following table shows the exchange rate between the Won and the U.S. Dollar (in Won per U.S. Dollar) as announced by the Seoul Money Brokerage Services, Ltd. as of the dates indicated:

	Won/U.S. Dollar Exchange Rate
December 30, 2016	1,208.5
January 31, 2017	1,157.8
February 28, 2017	1,132.1
March 31, 2017	1,116.1
April 28, 2017	1,130.1
May 31, 2017	1,123.9
June 30, 2017	1,139.6
July 31, 2017	1,119.1
August 31, 2017	1,122.8
September 29, 2017	1,146.7
October 31, 2017	1,125.0
November 30, 2017	1,082.4

	Won/U.S. Dollar Exchange Rate
December 29, 2017	1,071.4
January 31, 2018	1,071.5
February 28, 2018	1,071.0
March 30, 2018	1,066.5
April 30, 2018	1,076.2
May 31, 2018	1,081.3
June 29, 2018	1,121.7
July 31, 2018	1,116.7
August 31, 2018	1,108.8
September 28, 2018	1,112.7
October 31, 2018	1,140.6
November 30, 2018	1,121.8
December 31, 2018	1,118.1
January 31, 2019	1,117.2
February 28, 2019	1,117.8
March 29, 2019	1,137.8
April 30, 2019	1,158.2
May 31, 2019	1,190.0
June 28, 2019	1,156.8
July 31, 2019	1,182.0
August 30, 2019	1,215.2
September 30, 2019	1,201.3
October 31, 2019	1,168.4
November 29, 2019	1,179.3
December 31, 2019	1,157.8
January 31, 2020	1,183.5
February 28, 2020	1,215.9
March 31, 2020	1,222.6
April 29, 2020	1,225.2
May 29, 2020	1,239.4
June 30, 2020	1,200.7
July 31, 2020	1,191.4
August 31, 2020	1,185.1
September 29, 2020	1,173.5
October 30, 2020	1,133.4
November 30, 2020	1,104.4
December 31, 2020	1,088.0
January 29, 2021	1,114.6
February 26, 2021	1,108.4
March 31, 2021	1,133.5
April 30, 2021	1,107.4
May 31, 2021	1,116.0

During the period from January 2, 2008 through April 16, 2009, the value of the Won relative to the U.S. dollar declined by approximately 29.9%, due primarily to adverse economic conditions resulting from liquidity and credit concerns and volatility in the global credit and financial markets and repatriations by foreign investors of their investments in the Korean stock market. The exchange rate between the Won and the U.S. Dollar has fluctuated since then. In 2020 and in recent months, the value of the Won relative to the U.S. dollar fluctuated significantly, due primarily to the impact of the global outbreak of the COVID-19 pandemic. The market average exchange rate was Won 1,135.6 to US$1.00 on June 24, 2021.

Balance of Payments and Foreign Trade

Balance of Payments

Balance of payments figures measure the relative flow of goods, services and capital into and out of the country as represented in the current balance and the capital balance. The current balance tracks a country's trade in goods and services and transfer payments and measures whether a country is living within its income from trading and investments. The capital balance covers all transactions involving the transfer of capital into and out of the country, including loans and investments. The overall balance represents the sum of the current and capital balances. An overall balance surplus indicates a net inflow of foreign currencies, thereby increasing demand for and strengthening the local currency. An overall balance deficit indicates a net outflow of foreign currencies, thereby decreasing demand for and weakening the local currency. The financial account mirrors the overall balance. If the overall balance is positive, the surplus, which represents the nation's savings, finances the overall deficit of the country's trading partners. Accordingly, the financial account will indicate cash outflows equal to the overall surplus. If, however, the overall balance is negative, the nation has an international deficit which must be financed. Accordingly, the financial account will indicate cash inflows equal to the overall deficit.

The following table sets out certain information with respect to the Republic's balance of payments:

Balance of Payments[1]

Classification	2016	2017	2018	2019	2020[4]
			(millions of dollars)		
Current Account	97,923.7	75,230.9	77,466.5	59,676.1	75,275.7
Goods	116,461.7	113,592.9	110,086.8	79,812.1	81,945.2
Exports[2]	511,926.1	580,310.2	626,266.5	556,667.9	516,604.1
Imports[2]	395,464.4	466,717.3	516,179.7	476,855.8	434,658.9
Services	(17,338.4)	(36,734.1)	(29,369.4)	(26,845.3)	(16,190.1)
Income	4,567.1	5,336.9	4,901.9	12,856.0	12,050.3
Current Transfers	(5,766.7)	(6,964.8)	(8,152.8)	(6,146.7)	(2,529.7)
Capital and Financial Account	99,879.1	84,489.6	76,790.1	58,857.6	76,776.5
Capital Account	(46.2)	(26.8)	316.7	(169.3)	(339.4)
Financial Account[3]	99,925.3	84,516.4	76,473.4	59,026.9	77,115.9
Net Errors and Omissions	2,047.8	9,312.3	(1,309.8)	(479.9)	2,179.6

(1) Figures are prepared based on the sixth edition of the Balance of Payment Manual published by International Monetary Fund in December 2010 and implemented by the Government in December 2013. In December 2018, The Bank of Korea revised the Republic's balance of payments information to capture new economic activities and reflect the changes in raw data.

(2) These entries are derived from trade statistics and are valued on a free on board basis, meaning that the insurance and freight costs are not included.

(3) Includes borrowings from the IMF, syndicated bank loans and short-term borrowings.

(4) Preliminary.

Source: The Bank of Korea

The current account surplus in 2019 decreased to US$59.7 billion from the current account surplus of US$77.5 billion in 2018, primarily due to a decrease in surplus from the goods account, which more than offset an increase in surplus from the income account and a decrease in deficit from the services account. The current account surplus in 2020 increased to US$75.3 billion from the current account surplus of US$59.7 billion in 2019, primarily due to a decrease in deficit from the services account, and to a lesser extent, a decrease in deficit from the current transfers account and an increase in surplus from the goods account. Based on preliminary data, the current account surplus in the first quarter of 2021 increased to US$22.8 billion from the current account surplus of US$12.9 billion in the corresponding period of 2020, primarily due to a decrease in deficit from the services account, an increase in surplus from the goods account and an increase in surplus from the income account, which more than offset an increase in deficit from the current transfers account.

Foreign Direct Investment

Since 1960, the Government has adopted a broad range of related laws, administrative rules and regulations that provide a framework for the conduct and regulation of foreign investment activities. In September 1998, the Government promulgated the Foreign Investment Promotion Act, or the FIPA, which replaced previous foreign direct investment related laws, rules and regulations, to promote inbound foreign investments by providing incentives to, and facilitating investment activities in the Republic by, foreign nationals. The FIPA prescribes, among others, procedural requirements for inbound foreign investments, incentives for foreign investments such as tax reductions, and requirements relating to designation and development of foreign investment target regions. The Government believes that providing a stable and receptive environment for foreign direct investment will accelerate the inflow of foreign capital, technology and management techniques.

The following table sets forth information regarding annual foreign direct investment in the Republic for the periods indicated.

Foreign Direct Investment

	2016	2017	2018	2019	2020[2]
	(billions of dollars)				
Contracted and Reported Investment					
Greenfield Investment[1]	15.0	15.7	20.0	15.9	14.4
Merger & Acquisition	6.3	7.2	6.9	7.4	6.2
Total	21.3	22.9	26.9	23.3	20.6
Actual Investment	10.8	13.8	17.3	13.4	11.4

(1) Includes building new factories and operational facilities.
(2) Preliminary.

Source: Ministry of Trade, Industry and Energy

In 2019, the contracted and reported amount of foreign direct investment in the Republic decreased to US$23.3 billion from US$26.9 billion in 2018, primarily due to a decrease in foreign investment in the manufacturing sector to US$8.2 billion in 2019 from US$10.0 billion in 2018.

Based on preliminary data, in 2020, the contracted and reported amount of foreign direct investment in the Republic decreased to US$20.6 billion from US$23.3 billion in 2019, primarily due to a decrease in foreign investment in the manufacturing sector to US$5.9 billion in 2020 from US$8.2 billion in 2019.

The following table sets forth information regarding the source of foreign direct investment by region and country for the periods indicated:

Foreign Direct Investment by Region and Country

	2016	2017	2018	2019	2020
	(billions of dollars)				
North America					
U.S.A.	3.9	4.7	5.9	6.8	5.3
Others	1.4	1.6	1.9	1.7	3.5
	5.3	6.3	7.8	8.6	8.8
Asia					
Japan	1.2	1.8	1.3	1.4	0.7
Hong Kong	2.1	1.8	1.5	1.9	1.1
Singapore	2.3	1.8	1.5	1.3	2.3
China	2.0	0.8	2.7	1.0	2.0
Others	0.5	2.0	2.4	1.0	0.4
	8.1	8.2	9.4	6.6	6.5
Europe					
Malta	4.1	1.1	2.6	1.5	2.0
Netherlands	1.5	1.7	1.4	1.7	0.6
England	0.4	2.2	1.2	2.1	0.7
Germany	0.3	0.7	0.5	0.4	0.5
France	0.2	0.3	0.7	0.1	0.2
Luxembourg	0.2	0.2	0.2	0.1	0.2
Others	0.8	1.1	2.4	1.4	0.6
	7.5	7.3	9.0	7.4	4.8
Others regions and countries	0.4	1.1	0.6	0.7	0.5
Total	21.3	22.9	26.9	23.3	20.6

Source: Ministry of Trade, Industry and Energy

Trade Balance

Trade balance figures measure the difference between a country's exports and imports. If exports exceed imports the country has a trade balance surplus while if imports exceed exports the country has a deficit. A deficit, indicating that a country's receipts from abroad fall short of its payments to foreigners, must be financed, rendering the country a debtor nation. A surplus, indicating that a country's receipts exceed its payments to foreigners, allows the country to finance its trading partners' net deficit to the extent of the surplus, rendering the country a creditor nation.

The following table summarizes the Republic's trade balance for the periods indicated:

Trade Balance

	Exports[1]	As % of GDP[2]	Imports[1]	As % of GDP[2]	Balance of Trade	Exports as % of Imports
	(billions of dollars, except percentages)					
2016	495.4	33.0%	406.2	27.1%	89.2	122.0
2017	573.7	35.3%	478.5	29.5%	95.2	119.9
2018	604.9	35.2%	535.2	31.1%	69.7	113.0
2019	542.2	33.0%	503.3	30.7%	38.9	107.7
2020[3]	512.8	31.4%	467.6	28.7%	45.2	109.7

(1) These entries are derived from customs clearance statistics on a C.I.F. basis, meaning that the price of goods include insurance and freight cost.
(2) At current market prices.
(3) Preliminary.

Source: The Bank of Korea; Korea Customs Service

The Republic, due to its lack of natural resources, relies on extensive trading activity for growth. The country meets virtually all domestic requirements for petroleum, wood and rubber with imports, as well as much of its coal and iron needs. Exports consistently represent a high percentage of GDP and, accordingly, the international economic environment is of crucial importance to the Republic's economy. See "—The Economy—Worldwide Economic and Financial Difficulties".

The following tables give information regarding the Republic's exports and imports by major commodity groups:

Exports by Major Commodity Groups (C.I.F.)[1]

	2016	As % of 2016 Total	2017	As % of 2017 Total	2018	As % of 2018 Total	2019	As % of 2019 Total	2020[2]	As % of 2020 Total[2]
	(billions of dollars, except percentages)									
Foods & Consumer Goods	7.4	1.5	7.8	1.4	7.9	1.3	8.2	1.5	8.6	1.7
Raw Materials and Fuels	33.0	6.7	43.1	7.5	55.1	9.1	48.8	9.0	32.1	6.3
Petroleum & Derivatives	26.8	5.4	35.4	6.2	47.0	7.8	41.3	7.6	24.7	4.8
Others	6.2	1.3	7.7	1.3	8.1	1.3	7.5	1.4	7.4	1.4
Light Industrial Products	35.4	7.1	36.0	6.3	35.8	5.9	34.2	6.3	32.4	6.3
Heavy & Chemical Industrial Products	419.7	84.7	486.8	84.9	506.1	83.7	451.0	83.2	439.6	85.7
Electronic & Electronic Products	159.4	32.2	192.0	33.5	214.8	35.5	171.4	31.6	178.5	34.8
Chemicals & Chemical Products	55.3	11.2	65.7	11.5	74.0	12.2	67.4	12.4	66.8	13.0
Metal Goods	39.9	8.1	46.9	8.2	48.1	8.0	44.1	8.1	39.6	7.7
Machinery & Precision Equipment	55.2	11.1	63.3	11.0	69.4	11.5	67.6	12.5	63.4	12.4
Transport Equipment	101.0	20.4	108.8	19.0	87.4	14.4	87.7	16.2	77.6	15.1
Passenger Cars	37.5	7.6	38.8	6.8	38.2	6.3	40.5	7.5	35.6	6.9
Ship & Boat	33.5	6.8	41.4	7.2	20.7	3.4	19.5	3.6	19.2	3.7
Others	30.0	6.1	28.6	5.0	28.4	4.7	27.7	5.1	22.8	4.4
Others	8.9	1.8	10.1	1.8	12.5	2.1	12.7	2.3	13.7	2.7
Total	495.4	100.0	573.7	100.0	604.9	100.0	542.2	100.0	512.8	100.0

(1) These entries are derived from customs clearance statistics. C.I.F. means that the price of goods includes insurance and freight costs.
(2) Preliminary.

Source: The Bank of Korea; Korea Customs Service

Imports by Major Commodity Groups (C.I.F.)[1]

	2016	As % of 2016 Total	2017	As % of 2017 Total	2018	As % of 2018 Total	2019	As % of 2019 Total	2020[2]	As % of 2020 Total[2]
	(billions of dollars, except percentages)									
Industrial Materials and Fuels	191.0	47.0	233.1	48.7	279.0	52.1	254.0	50.5	206.3	44.1
Crude Petroleum	44.3	10.9	59.6	12.5	80.4	15.0	70.3	14.0	44.5	9.5
Mineral	15.5	3.8	20.3	4.2	22.0	4.1	21.7	4.3	21.4	4.6
Chemicals	39.1	9.6	44.0	9.2	50.0	9.3	47.0	9.3	46.3	9.9
Iron & Steel Products	18.9	4.7	20.3	4.2	19.7	3.7	19.8	3.9	15.2	3.3
Non-ferrous Metal	10.7	2.6	12.1	2.5	12.8	2.4	12.0	2.4	11.7	2.5
Others	62.5	15.4	76.8	16.1	94.1	17.6	83.2	16.5	67.2	14.4
Capital Goods	147.8	36.4	171.8	35.9	174.6	32.6	164.9	32.8	177.1	37.9
Machinery & Precision Equipment	47.8	11.8	63.1	13.2	60.5	11.3	50.7	10.1	57.9	12.4
Electric & Electronic Machines	84.9	20.9	95.8	20.0	100.4	18.8	100.4	20.0	105.1	22.5
Transport Equipment	13.0	3.2	10.8	2.3	11.5	2.1	11.6	2.3	11.9	2.5
Others	2.1	0.5	2.1	0.4	2.2	0.4	2.1	0.4	2.2	0.5
Consumer Goods	67.4	16.6	73.6	15.4	81.6	15.2	84.5	16.8	84.2	18.0
Cereals	6.2	1.5	6.0	1.3	6.8	1.3	6.9	1.4	7.1	1.5
Goods for Direct Consumption	17.8	4.4	19.7	4.1	22.3	4.2	22.2	4.4	22.3	4.8
Consumer Durable Goods	27.0	6.6	30.0	6.3	32.2	6.0	34.5	6.9	34.9	7.5
Consumer Nondurable Goods	16.4	4.0	17.9	3.7	20.3	3.8	20.9	4.2	20.0	4.3
Total	406.2	100.0	478.5	100.0	535.2	100.0	503.3	100.0	467.6	100.0

(1) These entries are derived from customs clearance statistics. C.I.F. means that the price of goods includes insurance and freight costs.
(2) Preliminary.

Source: The Bank of Korea; Korea Customs Service

In 2016, the Republic recorded a trade surplus of US$89.2 billion. Exports decreased by 6.0% to US$495.4 billion in 2016 from US$526.8 billion in 2015, primarily due to the continued slowdown of the global economy. Imports decreased by 6.9% to US$406.2 billion in 2016 from US$436.5 billion in 2015, primarily due to a continued decrease in oil prices, which also led to decreased unit prices of other major raw materials.

In 2017, the Republic recorded a trade surplus of US$95.2 billion. Exports increased by 15.8% to US$573.7 billion in 2017 from US$495.4 billion in 2016, primarily due to increased demand for semiconductors and steel products. Imports increased by 17.8% to US$478.5 billion in 2017 from US$406.2 billion in 2016, primarily due to an increase in oil prices, which also led to increased unit prices of other major raw materials, and increased imports of machinery, precision equipment and electronic machines.

In 2018, the Republic recorded a trade surplus of US$69.7 billion. Exports increased by 5.4% to US$604.9 billion in 2018 from US$573.7 billion in 2017, primarily due to increased demand for semiconductors and petroleum products. Imports increased by 11.8% to US$535.2 billion in 2018 from US$478.5 billion in 2017, primarily due to an increase in oil prices, which also led to increased unit prices of other major raw materials.

In 2019, the Republic recorded a trade surplus of US$38.9 billion. Exports decreased by 10.4% to US$542.2 billion in 2019 from US$604.9 billion in 2018, primarily due to a significant decrease in semiconductor prices. Imports decreased by 6.0% to US$503.3 billion in 2019 from US$535.2 billion in 2018, primarily due to a decrease in oil prices, which also led to decreased unit prices of other major raw materials.

Based on preliminary data, the Republic recorded a trade surplus of US$45.2 billion in 2020. Exports decreased by 5.4% to US$512.8 billion in 2020 from US$542.2 billion in 2019, primarily due to a slowdown of the global economy resulting from the COVID-19 pandemic. Imports decreased by 7.1% to US$467.6 billion in

2020 from US$503.3 billion in 2019, primarily due to a decrease in oil prices, which also led to decreased unit prices of other major raw materials, as well as decreased domestic consumption, which were mainly attributed to the ongoing global outbreak of the COVID-19 pandemic.

Based on preliminary data, the Republic recorded a trade surplus of US$10.4 billion in the first quarter of 2021. Exports increased by 12.5% to US$146.4 billion in the first quarter of 2021 from US$130.2 billion in the corresponding period of 2020, primarily due to increased demand for semiconductors, automobiles and bio-health products. Imports increased by 12.0% to US$136.1 billion in the first quarter of 2021 from US$121.5 billion in the corresponding period of 2020, primarily due to an increase in oil prices, which also led to increased unit prices of other major raw materials.

The following table sets forth the Republic's exports trading partners:

Exports

	2016	As % of 2016 Total	2017	As % of 2017 Total	2018	As % of 2018 Total	2019	As % of 2019 Total	2020(1)	As % of 2020 Total(1)
	(millions of dollars, except percentages)									
China	124,432.9	25.1	142,120.0	24.8	162,125.1	26.8	136,202.5	25.1	132,565.4	25.9
United States	66,462.3	13.4	68,609.7	12.0	72,719.9	12.0	73,343.9	13.5	74,115.8	14.5
Japan	24,355.0	4.9	26,816.1	4.7	30,528.6	5.0	28,420.2	5.2	25,097.7	4.9
Hong Kong	32,782.4	6.6	39,112.3	6.8	45,996.4	7.6	31,912.9	5.9	30,653.8	6.0
Singapore	12,458.9	2.5	11,651.9	2.0	11,782.2	1.9	12,768.0	2.4	9,828.4	1.9
Vietnam	32,630.5	6.6	47,753.8	8.3	48,622.1	8.0	48,177.7	8.9	48,510.6	9.5
Taiwan	12,220.5	2.5	14,898.4	2.6	20,783.5	3.4	15,666.3	2.9	16,465.4	3.2
India	11,596.3	2.3	15,055.5	2.6	15,606.2	2.6	15,096.3	2.8	11,937.3	2.3
Indonesia	6,608.5	1.3	8,403.7	1.5	8,833.2	1.5	7,650.1	1.4	6,312.9	1.2
Mexico	9,720.8	2.0	10,932.6	1.9	11,458.2	1.9	10,927.0	2.0	8,241.0	1.6
Australia	7,500.7	1.5	19,861.6	3.5	9,610.4	1.6	7,890.6	1.5	6,188.5	1.2
Russia	4,768.8	1.0	6,906.6	1.2	7,320.9	1.2	7,774.1	1.4	6,900.0	1.3
Germany	6,443.0	1.3	8,483.8	1.5	9,372.7	1.5	8,685.7	1.6	9,576.1	1.9
Others(1)	143,445.3	29.0	153,088.4	26.7	150,100.2	24.8	137,717.3	25.4	126,395.8	24.6
Total	495,425.9	100.0	573,694.4	100.0	604,859.7	100.0	542,232.6	100.0	512,788.7	100.0

(1) Preliminary.
(2) Includes more than 200 countries and regions.

Source: The Bank of Korea; Korea Customs Service

The following table sets forth the Republic's imports trading partners:

Imports

	2016	As % of 2016 Total	2017	As % of 2017 Total	2018	As % of 2018 Total	2019	As % of 2019 Total	2020[1]	As % of 2020 Total[1]
	(millions of dollars, except percentages)									
China	86,980.1	21.4	97,860.1	20.5	106,488.6	19.9	107,228.7	21.3	108,884.6	23.3
Japan	47,466.6	11.7	55,124.7	11.5	54,603.7	10.2	47,580.9	9.5	46,023.0	9.8
United States	43,215.9	10.6	50,749.4	10.6	58,868.3	11.0	61,878.6	12.3	57,492.2	12.3
Saudi Arabia	15,741.7	3.9	19,590.5	4.1	26,335.8	4.9	21,840.6	4.3	15,979.6	3.4
Qatar	10,081.3	2.5	11,267.1	2.4	16,293.6	3.0	13,036.6	2.6	7,562.1	1.6
Australia	15,175.9	3.7	19,159.7	4.0	20,718.6	3.9	20,608.2	4.1	18,707.1	4.0
Germany	18,917.0	4.7	19,748.7	4.1	20,854.0	3.9	19,936.9	4.0	20,680.9	4.4
Kuwait	7,262.3	1.8	9,594.0	2.0	12,794.3	2.4	10,771.1	2.1	5,827.9	1.2
Taiwan	16,403.1	4.0	18,073.0	3.8	16,738.4	3.1	15,717.7	3.1	17,837.0	3.8
United Arab Emirates	6,941.1	1.7	9,557.1	2.0	9,287.4	1.7	8,991.1	1.8	5,692.7	1.2
Indonesia	8,285.3	2.0	9,571.0	2.0	11,161.2	2.1	8,819.8	1.8	7,594.7	1.6
Malaysia	7,507.8	1.8	8,714.7	1.8	10,205.7	1.9	9,279.9	1.8	8,892.6	1.9
Others[2]	122,214.8	30.1	149,468.3	31.2	170,852.9	31.9	157,652.8	31.3	146,458.4	31.3
Total	406,192.9	100.0	478,478.3	100.0	535,202.4	100.0	503,342.9	100.0	467,632.8	100.0

(1) Preliminary.
(2) Includes more than 200 countries and regions.

Source: The Bank of Korea; Korea Customs Service

The outbreak of severe health epidemics in Korea and various parts of the world, including the ongoing global outbreak of the COVID-19 pandemic, raises significant uncertainty about prospects for international trade and economic growth for affected countries, as well as world economic prospects in general. Global economic uncertainties in relation to COVID-19, including uncertainty due to the extent and effectiveness of extensive control measures and vaccination programs, among others, are expected to continue in 2021. Although there have been mixed signs of recovery in the domestic and global economy resulting from the availability of COVID-19 vaccinations and gradual normalization of business activities, the extent to which the COVID-19 pandemic affects international trade is highly uncertain and difficult to predict. In order to contain further spread of such epidemics and to prevent the outbreak of similar epidemics in the future, the Government continues to cooperate actively with regional and international efforts to develop and implement various measures to combat such outbreaks. See "—The Economy—Worldwide Economic and Financial Difficulties".

In 2020 and in recent months, the value of the Won relative to the U.S. dollar and Japanese Yen has fluctuated widely, in particular due to the impact of the ongoing global outbreak of the COVID-19 pandemic. See "—The Economy—Worldwide Economic and Financial Difficulties". An appreciation of the Won against the U.S. dollar and Japanese Yen increases the Won value of the Republic's export sales and diminishes the price-competitiveness of export goods in foreign markets in U.S. dollar and Japanese Yen terms, respectively. However, it also decreases the cost of imported raw materials in Won terms and the cost in Won of servicing the Republic's U.S. dollar and Japanese Yen denominated debt. In general, when the Won appreciates, export dependent sectors of the Korean economy, including automobiles, electronics and shipbuilding, suffer from the resulting pressure on the price-competitiveness of export goods, which may lead to reduced profit margins and loss in market share, more than offsetting a decrease in the cost of imported raw materials. If the export dependent sectors of the Korean economy suffer reduced profit margins or a net loss, it could result in a material adverse effect on the Korean economy.

Since the Government announced its plans to pursue free trade agreements, or FTAs, in 2003, the Republic has entered into FTAs with key trading partners. The Republic has had bilateral FTAs in effect with Chile since 2004, Singapore since 2006, India since 2010, Peru since 2011, the United States since 2012, Turkey since 2013, Australia since 2014, Canada, China, New Zealand and Vietnam since 2015,Colombia since July 2016 and the United Kingdom since January 2021. The Republic is currently in negotiations with a number of other key trading partners. In addition, the Republic has had regional FTAs in effect with the European Free Trade Association since 2006, the Association of Southeast Asian Nations since 2009, the European Union since 2011 and with each of Panama, Costa Rica, Guatemala, Honduras, El Salvador and Nicaragua since 2021, and is currently negotiating additional regional FTAs. The Republic and Turkey have completed revisions to their bilateral FTA, which became effective in August 2018. The Republic and the United States have also recently completed revisions to their bilateral FTA, which became effective in January 2019.

Non-Commodities Trade Balance

The Republic had non-commodities trade deficits of US$18.5 billion in 2016, US$49.0 billion in 2017, US$32.6 billion in 2018 and US$20.1 billion in 2019. Based on preliminary data, the Republic had a non-commodities trade deficit of US$6.7 billion in 2020.

Foreign Currency Reserves

The foreign currency reserves are external assets that are readily available to and controlled by monetary authorities for meeting balance of payments financing needs and for other related purposes. The following table shows the Republic's total official foreign currency reserves:

Total Official Reserves

	December 31,				
	2016	2017	2018	2019	2020
	(millions of dollars)				
Gold	$ 4,794.8	$ 4,794.8	$ 4,794.8	$ 4,794.8	$ 4,794.8
Foreign Exchange[(1)]	361,701.4	379,476.6	393,332.5	397,876.1	430,117.2
Total Gold and Foreign Exchange	366,496.2	384,271.3	398,127.2	402,670.9	434,912.0
Reserve Position at IMF	1,727.5	1,621.1	2,140.4	2,792.9	4,815.3
Special Drawing Rights	2,878.0	3,374.3	3,426.6	3,352.4	3,370.8
Total Official Reserves	$371,101.6	$389,266.7	$403,694.3	$408,816.1	$443,098.1

(1) More than 95% of the Republic's foreign currency reserves are comprised of convertible foreign currencies.

Source: The Bank of Korea; International Monetary Fund

The Government's foreign currency reserves increased to US$262.2 billion as of December 31, 2007 from US$8.9 billion as of December 31, 1997, primarily due to continued balance of trade surpluses and capital inflows. In 2008, the Government's foreign currency reserves decreased, falling to US$201.2 billion as of December 31, 2008, partially as a result of the Government's use of the foreign currency reserve to provide foreign currency liquidity to Korean financial institutions. The Government's foreign currency reserves increased to US$371.1 billion as of December 31, 2016, US$389.3 billion as of December 31, 2017, US$403.7 billion as of December 31, 2018, US$408.8 billion as of December 31, 2019 and US$443.1 billion as of December 31, 2020, primarily due to continued trade surpluses and capital inflows. The amount of the Government's foreign currency reserve was US$456.5 billion as of May 31, 2021.

Government Finance

The Ministry of Economy and Finance prepares the Government budget and administers the Government's finances.

The Government's fiscal year commences on January 1. The Government must submit the budget, which is drafted by the Minister of Economy and Finance and approved by the President of the Republic, to the National Assembly not later than 90 days prior to the start of the fiscal year and may submit supplementary budgets revising the original budget at any time during the fiscal year.

2019 budgeted revenues increased by 7.3% to ₩446.4 trillion from ₩416.1 trillion in 2018, led by an increase in budgeted tax revenues (including taxes on income, profits and capital gains). 2019 budgeted expenditures and net lending increased by 10.6% to ₩439.9 trillion from ₩397.7 trillion in 2018, led by increases in budgeted expenditures on economic growth (including job creation and research and development), child care and education, welfare services for senior citizens, children, disabled people, unemployed people and temporary workers and military services. The 2019 budget anticipated a ₩6.5 billion budget surplus.

2020 budgeted revenues increased by 1.0% to ₩450.9 trillion from ₩446.4 trillion in 2019, led by an increase in budgeted tax revenues (including social security contributions and tax on property). 2020 budgeted expenditures and net lending increased by 9.4% to ₩481.4 trillion from ₩439.9 trillion in 2019, led by increases in budgeted expenditures on economic growth (including job creation, research and development and support for start-ups and small businesses), social security, welfare services for senior citizens, unemployed people and temporary workers, and public housing. The 2020 budget anticipated a ₩30.5 billion budget deficit.

2021 budgeted revenues remained relatively stable at ₩450.9 trillion from 2020. 2021 budgeted expenditures and net lending increased by 9.3% to ₩526.3 trillion from ₩481.4 trillion in 2020, led by increases in budgeted expenditures on recovery from the COVID-19 pandemic (including support for individuals and businesses adversely impacted by the COVID-19 pandemic, procurement of COVID-19 vaccines and enhancement of medical facilities and other infrastructure, among others) and revitalization of the economy (public housing, job creation, research and development, social security and welfare services, among others). The 2021 budget anticipated a ₩75.4 trillion budget deficit.

In March 2020, the National Assembly approved a supplementary budget for 2020 in the amount of ₩11.7 trillion as part of the Government's efforts to mitigate adverse effects on the Korean economy resulting from the ongoing global outbreak of the COVID-19 pandemic. See "—The Economy—Worldwide Economic and Financial Difficulties". In April 2020, the National Assembly approved the second supplementary budget in the amount of ₩7.6 trillion, which amount was subsequently increased to ₩12.2 trillion, and in July 2020, the National Assembly approved the third supplementary budget in the amount of ₩35.1 trillion. In September 2020, the National Assembly approved the fourth supplementary budget amounting to ₩7.8 trillion, and the Government announced its COVID-19 relief package plan amounting to ₩9.4 trillion in December 2020, following a resurgence of COVID-19 cases in Korea. In March 2021, the National Assembly approved a 2021 supplementary budget in the amount of ₩14.9 trillion to be spent on initiatives for relief from the COVID-19 pandemic, including support for small businesses, job retention and creation programs and disease control measures. These supplementary budgets (including relief packages), the largest of their kind drawn up in response to an outbreak of an infectious disease in Korea, focus on the provision of financial support for certain industries that are most vulnerable to, or adversely impacted by, the COVID-19 pandemic, such as tourism, aviation, shipping, logistics and food services, among others. The Government has used, and will continue to use, the supplementary budgets for the following purposes: (i) provision of loans and guarantees for small businesses, (ii) household support, including daycare vouchers and emergency livelihood support, (iii) disease prevention and treatment, (iv) various forms of financial support for local communities most affected by the COVID-19 pandemic and (v) measures to revitalize the economy from the impact of the COVID-19 pandemic. The supplementary budgets have been, and will continue to be, funded through the issuance of treasury bonds by the Government, The Bank of Korea's unappropriated surplus and other surplus funds available to the Government, among others.

Given the additional spending measures as stipulated by the supplementary budgets (including relief packages), the Government expects a budget deficit for 2021, which would likely result in a deterioration in the Government's fiscal position and an increase in borrowings. The impact of such effects is highly uncertain and will depend on, among others, the speed and extent of the economic recovery in Korea and internationally, which in turn will likely depend significantly on the scope and duration of the COVID-19 pandemic.

The following table shows consolidated Government revenues and expenditures:

Consolidated Central Government Revenues and Expenditures

	Actual					Budget		
	2016	2017	2018	2019	2020[2]	2019	2020	2021[1]
				(billions of Won)				
Total Revenues	371,264	403,839	438,262	443,853	446,628	446,398	450,873	450,905
Current Revenues	367,888	400,659	435,558	441,148	443,694	443,271	447,925	447,865
Total Tax Revenues	299,451	325,845	358,424	363,005	360,129	364,539	365,389	359,775
Taxes on income, profits and capital gains	120,612	134,242	155,399	155,736	148,622	159,618	152,837	143,121
Social security contributions	56,889	60,460	64,854	69,550	74,583	69,747	73,392	77,032
Tax on property	11,112	12,945	15,473	15,474	22,735	14,611	16,013	19,300
Taxes on goods and services	89,221	95,535	99,056	98,614	91,047	97,263	98,154	95,658
Taxes on international trade and transaction	8,045	8,529	8,815	7,882	7,059	9,056	8,791	8,347
Other tax	13,571	14,133	14,828	15,748	16,084	14,244	16,202	16,316
Non-Tax Revenues	68,437	74,814	77,134	78,143	83,565	78,732	82,536	88,091
Operating surpluses of departmental enterprise sales and property income	24,489	27,692	28,616	29,345	33,571	28,692	31,026	32,791
Administration fees & charges and non-industrial sales	8,469	9,067	9,004	10,181	9,929	9,940	10,355	10,724
Fines and forfeits	22,266	23,769	24,455	22,554	23,583	23,726	24,643	26,950
Contributions to government employee pension fund	11,289	12,311	13,206	13,523	13,876	13,445	13,944	15,385
Current revenue of non-financial public enterprises	1,924	1,974	1,853	2,540	2,606	2,929	2,568	2,241
Capital Revenues	3,376	3,180	2,703	2,705	2,934	3,127	2,948	3,040
Total Expenditures and Net Lending	354,354	379,809	407,099	455,850	517,781	439,868	481,352	526,292
Total Expenditures	342,612	363,671	389,610	436,698	489,966	425,270	460,064	496,661
Current Expenditures	309,981	332,719	360,176	387,100	455,098	394,567	426,741	459,333
Expenditure on goods and service	65,145	67,536	71,459	60,196	79,460	80,219	85,521	94,636
Interest payment	13,964	13,976	14,287	13,837	14,452	14,362	15,525	17,254
Subsidies and other current transfers	228,349	248,513	272,080	309,575	357,295	295,970	321,672	343,636
Current expenditure of non-financial public enterprises	2,524	2,694	2,350	3,492	3,891	4,016	4,023	3,807
Capital Expenditures	32,631	30,952	29,434	49,598	34,868	30,704	33,323	37,328
Net Lending	11,741	16,138	17,489	19,152	27,815	14,597	21,288	29,631

(1) Preliminary.

Source: Ministry of Economy and Finance; The Bank of Korea; Korea National Statistical Office

The consolidated Government account consists of a General Account, Special Accounts (including a non-financial public enterprise special account) and Public Funds. The Government segregates the accounts of certain functions of the Government into Special Accounts and Public Funds for more effective administration and

fiscal control. The Special Accounts and Public Funds relate to business type activities, such as economic development, road and railway construction and maintenance, monopolies, and communications developments and the administration of loans received from official international financial organizations and foreign governments.

Revenues derive mainly from national taxes and non-tax revenues. Taxes in Korea can be roughly classified into the following types:

- income tax and capital gains tax,
- property tax,
- value-added tax,
- customs duty tax, and
- other taxes.

Income tax and capital gains tax are imposed on income derived from labor, business operation and ownership of assets and profits derived from capital appreciation. Income tax and capital gains tax, depending on the type of taxpayer, can be further classified into corporate income tax and individual income tax. Property tax is imposed on exchange or ownership of property and includes inheritance tax and gift tax. Value-added tax is imposed on value added to goods and services. Customs duty tax is imposed on imported goods. Other taxes include tax on certain securities transactions and a stamp tax for certain documents.

Expenditures include general administration, national defense, community service, education, health, social security, certain annuities and pensions and local finance, which involves the transfer of tax revenues to local governments.

For 2016, the Republic recorded total revenues of ₩371.3 trillion and total expenditures and net lending of ₩354.4 trillion. The Republic had a fiscal surplus of ₩16.9 trillion in 2016.

For 2017, the Republic recorded total revenues of ₩403.8 trillion and total expenditures and net lending of ₩379.8 trillion. The Republic had a fiscal surplus of ₩24.0 trillion in 2017.

For 2018, the Republic recorded total revenues of ₩438.3 trillion and total expenditures and net lending of ₩407.1 trillion. The Republic had a fiscal surplus of ₩31.2 trillion in 2018.

For 2019, the Republic recorded total revenues of ₩443.9 trillion and total expenditures and net lending of ₩455.9 trillion. The Republic had a fiscal deficit of ₩12.0 trillion in 2019.

Based on preliminary data, the Republic recorded total revenues of ₩446.6 trillion and total expenditures and net lending of ₩517.8 trillion in 2020. The Republic had a fiscal deficit of ₩71.2 trillion in 2020.

The Government expects that the Republic's fiscal deficit will increase in 2021, primarily due to a significant increase in expenditures and a significant decrease in tax revenues, primarily due to the adverse impact of the ongoing global outbreak of the COVID-19 pandemic on the Korean economy.

Debt

The Government estimates that the total outstanding debt of the Government (including guarantees by the Government) as of December 31, 2019 amounted to approximately ₩713.8 trillion, an increase of 6.7% over the previous year.

The Government estimates that the total outstanding debt of the Government (including guarantees by the Government) as of December 31, 2020 amounted to approximately ₩831.7 trillion, an increase of 16.5% over the previous year.

The Government expects that the amount of the Government's debt will further increase in 2021 as it continues to execute large stimulus plans to support the Korean economy in light of the ongoing global outbreak of the COVID-19 pandemic. The Ministry of Economy and Finance administers the national debt of the Republic.

External and Internal Debt of the Government

The following table sets out, by currency and the equivalent amount in U.S. dollars, the estimated outstanding direct external debt of the Government as of December 31, 2020:

Direct External Debt of the Government

	Amount in Original Currency	Equivalent Amount in U.S. Dollars[1]
	(millions)	
US$	US$6,525.0	US$6,525.0
Euro (EUR)	EUR1,825.0	2,244.8
Total		US$8,769.8

(1) Amounts expressed in currencies other than US$ are converted to US$ at the arbitrage rate announced by the Seoul Money Brokerage Services, Ltd. in effect on December 31, 2020.

The following table summarizes, as of December 31 of the years indicated, the outstanding direct internal debt of the Republic:

Direct Internal Debt of the Government

	(billions of Won)
2016	584,785.0
2017	619,971.9
2018	643,550.9
2019	690,524.1
2020	808,941.0

The following table sets out all guarantees by the Government of indebtedness of others:

Guarantees by the Government

	December 31,				
	2016	2017	2018	2019	2020
	(billions of Won)				
Domestic	24,241.6	21,130.5	17,016.3	14,760.0	12,490.0
External[1]	—	—	—	—	—
Total	24,241.6	21,130.5	17,016.3	14,760.0	12,490.0

(1) Converted to Won at foreign exchange banks' telegraphed transfer selling rates to customers or the market average exchange rates in effect on December 31 of each year.

For further information on the outstanding indebtedness, including guarantees, of the Republic, see "—Tables and Supplementary Information".

External Liabilities

The following tables set out certain information regarding the Republic's external liabilities calculated under the criteria based on the sixth edition of the Balance of Payment Manual published by the International Monetary Fund in December 2010 and implemented by the Government in December 2013. Under BPM6, in particular, prepayments received in connection with the construction of ships are excluded from the external liabilities.

	December 31,				
	2016	2017	2018	2019	2020[1]
	(billions of dollars)				
Long-term Liabilities	277.4	296.1	315.6	332.5	385.0
General Government	64.5	78.0	83.5	91.2	119.4
Monetary Authorities	10.8	14.5	15.2	14.4	15.0
Banks	93.8	91.7	100.1	103.1	112.2
Other Sectors	108.3	111.8	116.8	123.7	138.3
Short-term Liabilities	104.8	116.0	125.6	134.5	157.5
General Government	2.5	2.0	1.0	1.6	2.1
Monetary Authorities	6.9	8.1	12.8	10.9	10.8
Banks	78.4	85.5	90.3	101.9	120.4
Other Sectors	17.0	20.4	21.5	20.1	24.2
Total External Liabilities	382.2	412.0	441.2	467.0	542.4

(1) Preliminary.

Commitments to Assume Treasury Obligations

The Government may, if deemed necessary for recovery from disasters and calamities, make commitments to assume treasury obligations to the extent resolved by the National Assembly each fiscal year. In such cases, such commitments shall be executed in accordance with the procedures for spending reserve funds within general accounts. As of December 31, 2020, such commitments assumed by the Government amounted to ₩1.3 trillion.

Debt Record

The Government has always paid when due the full amount of principal of, interest on, and amortization of sinking fund requirements of, all of its indebtedness.

Tables and Supplementary Information

A. External Debt of the Government

(1) External Bonds of the Government

Series	Issue Date	Maturity Date	Interest Rate (%)	Currency	Original Principal Amount	Principal Amount Outstanding as of December 31, 2020
2005-001	November 2, 2005	November 3, 2025	5.625	USD	400,000,000	400,000,000
2006-002	December 7, 2006	December 7, 2021	4.250	EUR	375,000,000	375,000,000
2013-001	September 11, 2013	September 11, 2023	3.875	USD	1,000,000,000	1,000,000,000
2014-001	June 10, 2014	June 10, 2044	4.125	USD	1,000,000,000	1,000,000,000
2014-002	June 10, 2014	June 10, 2024	2.125	EUR	750,000,000	750,000,000
2017-001	January 19, 2017	January 19, 2027	2.750	USD	1,000,000,000	1,000,000,000
2018-001	September 20, 2018	September 20, 2028	3.500	USD	500,000,000	500,000,000
2018-002	September 20, 2018	September 20, 2048	3.875	USD	500,000,000	500,000,000
2019-001	June 19, 2019	June 19, 2029	2.500	USD	1,000,000,000	1,000,000,000
2019-002	June 19, 2019	June 19, 2024	2.000	USD	500,000,000	500,000,000
2020-001	September 16, 2020	September 16, 2030	1.000	USD	625,000,000	625,000,000
2020-002	September 16, 2020	September 16, 2025	0.000	EUR	700,000,000	700,000,000
Total External Bonds in Original Currencies						USD 6,525,000,000
						EUR 1,825,000,000
Total External Bonds in Equivalent Amount of Won[(1)]						₩ 9,541,488,000,000

(1) U.S. dollar amounts are converted to Won amounts at the rate of US$1.00 to ₩1,088.0, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd. Euro amounts are converted to Won amounts at the rate of EUR 1.00 to ₩1,338.24, the market average exchange rate in effect on December 31, 2020, as announced by Seoul Money Brokerage Services, Ltd.

(2) External Borrowings of the Government

None.

B. External Guaranteed Debt of the Government

None.

C. Internal Debt of the Government

Title	Range of Interest Rates (%)	Range of Years of Issue	Range of Years of Original Maturity	Principal Amounts Outstanding as of December 31, 2020 (billions of Won)
1. Bonds				
Interest-Bearing Treasury Bond for Treasury Bond Management Fund	0.875-5.750	2006-2020	2021-2070	726,766.1
Interest-Bearing Treasury Bond for National Housing I	1.00-3.00	2011-2020	2016-2025	78,862.8
Interest-Bearing Treasury Bond for National Housing II	0.0-3.0	1996-2017	2016-2029	34.6
Interest-Bearing Treasury Bond for National Housing III	0	2005	2015	0
Non-interest-Bearing Treasury Bond for Contribution to International Organizations(1)	0	1968-1985	—	9.4
Total Bonds				805,672.9
2. Borrowings				
Borrowings from The Bank of Korea	0.712	2020	2021	213.0
Borrowings from the Sports Promotion Fund	0.785-1.575	2019-2020	2021-2022	927.0
Borrowings from The Korea Foundation Fund	0.955-1.825	2019-2020	2021-2022	118.1
Borrowings from the Labor Welfare Promotion Fund	1.07-1.26	2020	2021	50.0
Borrowings from Korea Technology Finance Corporation	0.81-2.34	2018-2020	2022	195.0
Borrowings from the Credit Guarantee Fund for Agriculture, Forestry and Fisheries Suppliers	1.285-1.825	2019	2021	850.0
Borrowings from the Government Employees' Pension Fund	1.51	2018	2021	10.0
Borrowings from the Film Industry Development Fund	1.43-1.575	2019	2021	75.0
Borrowings from the Korea Credit Guarantee Fund	0.81	2020	2023	250.0
Borrowings from the Housing Finance Credit Guarantee Fund	0.815-1.285	2020	2023	530.0
Borrowings from the Korea Infrastructure Credit Guarantee Fund	0.81	2020	2023	50.0
Total Borrowings				3,268.1
Total Internal Funded Debt				808,941.0

(1) Interest Rates and Years of Original Maturity not applicable.

D. Internal Guaranteed Debt of the Government

Title	Range of Interest Rates	Range of Years of Issue	Range of Years of Original Maturity	Principal Amounts Outstanding as of December 31, 2020
	(%)			(billions of Won)
1. Bonds of Government-Affiliated Corporations				
Korea Deposit Insurance Corporation	2.14-2.52	2018	2021	1,480.0
Korea Student Aid Foundation	0.00-4.79	2011-2020	2021-2040	10,490.0
Key Industry Stabilization Fund	0.73-1.45	2020	2021-2025	520.0
Total Internal Guaranteed Debt				12,490.0

E. Others

Commitments to Assume Treasury Obligations

The Government may, if deemed necessary for recovery from disasters and calamities, make commitments to assume treasury obligations to the extent resolved by the National Assembly each fiscal year. In such cases, such commitments shall be executed in accordance with the procedures for spending reserve funds within general accounts. As of December 31, 2020, such commitments assumed by the Government amounted to ₩1.3 trillion.

DESCRIPTION OF THE SECURITIES

Description of Debt Securities

We will issue debt securities under a fiscal agency agreement or agreements. The description below summarizes the material provisions of the debt securities and the fiscal agency agreement. Since it is only a summary, the description may not contain all of the information that may be important to you as a potential investor in the debt securities. Therefore, we urge you to read the form of fiscal agency agreement and the form of global debt security before deciding whether to invest in the debt securities. We have filed a copy of these documents with the Securities and Exchange Commission as exhibits to the registration statement of which this prospectus is a part. You should refer to such exhibits for more complete information.

The financial terms and other specific terms of your debt securities will be described in the prospectus supplement relating to your debt securities. The description in the prospectus supplement will supplement this description or, to the extent inconsistent with this description, replace it.

We will appoint a fiscal agent or agents in connection with debt securities whose duties will be governed by the fiscal agency agreement. We may replace the fiscal agent or appoint different fiscal agents for different series of debt securities.

General Terms of the Debt Securities

We may issue debt securities in separate series at various times. The Republic may irrevocably guarantee the payment of principal of, and interest on, one or more series of debt securities. The prospectus supplement that relates to your debt securities will specify some or all of the following terms:

- the aggregate principal amount;
- the currency of denomination and payment;
- any limitation on principal amount and authorized denominations;
- the percentage of their principal amount at which the debt securities will be issued;
- the maturity date or dates;
- the interest rate for the debt securities and, if variable, the method by which the interest rate will be calculated;
- whether any amount payable in respect of the debt securities will be determined based on an index or formula, and how any such amount will be determined;
- the dates from which interest, if any, will accrue for payment of interest and the record dates for any such interest payments;
- where and how we will pay principal and interest;
- whether and in what circumstances the debt securities may be redeemed before maturity;
- any sinking fund or similar provision;
- whether any part or all of the debt securities will be in the form of a global security and the circumstances in which a global security is exchangeable for certificated securities;
- if issued in certificated form, whether the debt securities will be in bearer form with interest coupons, if any, or in registered form without interest coupons, or both forms, and any restrictions on exchanges from one form to the other;
- whether any of the terms set out herein will differ for the debt securities;

- whether the Republic will irrevocably guarantee the payment of principal of, and interest on, the debt securities; and
- other specific provisions.

Depending on the terms of the debt securities we issue, the prospectus supplement relating to the debt securities may also describe applicable U.S. federal income tax and other considerations additional to the disclosure in this prospectus.

Unless otherwise specified in the applicable prospectus supplement, we will maintain at an office in the Borough of Manhattan, The City of New York, a register for the registration of transfers of debt securities issued in registered form.

Payments of Principal, Premium and Interest

On every payment date specified in the relevant prospectus supplement, we will pay the principal, premium and/or interest due on that date to the registered holder of the relevant debt security at the close of business on the related record date. We will make all payments at the place and in the currency set out in the prospectus supplement. Unless otherwise specified in the relevant prospectus supplement or the debt securities, we will make payments in U.S. dollars at the New York office of the fiscal agent or, outside the United States, at the office of any paying agent. Unless otherwise specified in the applicable prospectus supplement or debt securities, we will pay interest by check, payable to the registered holder.

We will make any payments on debt securities in bearer form at the offices and agencies of the fiscal agent or any other paying agent outside the United States as we may designate. At the option of the holder of the bearer debt securities, we will make such payments by check or by transfer to an account maintained by the holder with a bank located outside of the United States. We will not make payments on bearer debt securities at the corporate trust office of the fiscal agent in the United States or at any other paying agency in the United States. In addition, we will not make any payment by mail to an address in the United States or by transfer to an account maintained by a holder of bearer debt securities with a bank in the United States. Nevertheless, we will make payments on a bearer debt security denominated and payable in U.S. dollars at an office or agency in the United States if:

- payment outside the United States is illegal or effectively precluded by exchange controls or other similar restrictions; and
- the payment is then permitted under United States law, without material adverse consequences to us.

If we issue bearer debt securities, we will designate the offices of at least one paying agent outside the United States as the location for payment.

Repayment of Funds; Prescription

If no one claims money paid by us to the fiscal agent for the payment of principal or interest in respect of any series of debt securities for two years after the payment was due and payable, the fiscal agent or paying agent will repay the money to us. After such repayment, the fiscal agent or paying agent will not be liable with respect to the amounts so repaid, and you may look only to us for any payment under the debt securities.

Under Korean law, you will not be permitted to file a claim against us for payment of principal or interest on any series of debt securities unless you do so within five years, in the case of principal, and two years, in the case of interest, from the date on which payment was due.

Global Securities

The prospectus supplement relating to a series of debt securities will indicate whether any of that series of debt securities will be represented by a global security. The prospectus supplement will also describe any unique

specific terms of the depositary arrangement with respect to that series. Unless otherwise specified in the prospectus supplement, we anticipate that the following provisions will apply to depositary arrangements.

Registered Ownership of the Global Security

The global security will be registered in the name of a depositary identified in the prospectus supplement, or its nominee, and will be deposited with the depositary, its nominee or a custodian. The depositary, or its nominee, will therefore be considered the sole owner or holder of debt securities represented by the global security for all purposes under the fiscal agency agreement. Except as specified below or in the applicable prospectus supplement, beneficial owners:

- will not be entitled to have any of the debt securities represented by the global security registered in their names;
- will not receive physical delivery of any debt securities in definitive form;
- will not be considered the owners or holders of the debt securities;
- must rely on the procedures of the depositary and, if applicable, any participants (institutions that have accounts with the depositary or a nominee of the depositary, such as securities brokers and dealers) to exercise any rights of a holder; and
- will receive payments of principal and interest from the depositary or its participants rather than directly from us.

We understand that, under existing industry practice, the depositary and participants will allow beneficial owners to take all actions required of, and exercise all rights granted to, the registered holders of the debt securities.

We will register debt securities in the name of a person other than the depositary or its nominee only if:

- the depositary for a series of debt securities is unwilling or unable to continue as depositary; or
- we determine, in our sole discretion, not to have a series of debt securities represented by a global security.

In either such instance, an owner of a beneficial interest in a global security will be entitled to registration of a principal amount of debt securities equal to its beneficial interest in its name and to physical delivery of the debt securities in definitive form.

Beneficial Interests in and Payments on a Global Security

Only participants, and persons that may hold beneficial interests through participants, can own a beneficial interest in the global security. The depositary keeps records of the ownership and transfer of beneficial interests in the global security by its participants. In turn, participants keep records of the ownership and transfer of beneficial interests in the global security by other persons (such as their customers). No other records of the ownership and transfer of beneficial interests in the global security will be kept.

All payments on a global security will be made to the depositary or its nominee. When the depositary receives payment of principal or interest on the global security, we expect the depositary to credit its participants' accounts with amounts that correspond to their respective beneficial interests in the global security. We also expect that, after the participants' accounts are credited, the participants will credit the accounts of the owners of beneficial interests in the global security with amounts that correspond to the owners' respective beneficial interests in the global security.

The depositary and its participants establish policies and procedures governing payments, transfers, exchanges and other important matters that affect owners of beneficial interests in a global security. The

depositary and its participants may change these policies and procedures from time to time. We have no responsibility or liability for the records of ownership of beneficial interests in the global security, or for payments made or not made to owners of such beneficial interests. We also have no responsibility or liability for any aspect of the relationship between the depositary and its participants or for any aspect of the relationship between participants and owners of beneficial interests in the global security.

Bearer Securities

We may issue debt securities in a series in the form of one or more bearer global debt securities deposited with a common depositary for the Euroclear and Clearstream, or with a nominee identified in the applicable prospectus supplement. The specific terms and procedures, including the specific terms of the depositary arrangement, with respect to any portion of a series of debt securities to be represented by a global security will be described in the applicable prospectus supplement.

Additional Amounts

We will make all payments of principal of, and premium and interest, if any, on the debt securities without withholding or deducting any present or future taxes imposed by the Republic or any of its political subdivisions, unless required by law. If Korean law requires us to deduct or withhold taxes, we will pay additional amounts as necessary to ensure that you receive the same amount as you would have received without such withholding or deduction.

We will not pay, however, any additional amounts if you are liable for Korean tax because:

- you are connected with the Republic other than by merely owning the debt security or receiving income or payments on the debt security;
- you failed to complete and submit a declaration of your status as a non-resident of the Republic after we or the relevant tax authority requested you to do so; or
- you failed to present your debt security for payment within 30 days of when the payment is due or, if the fiscal agent did not receive the money prior to the due date, the date notice is given to holders that the fiscal agent has received the full amount due to holders. Nevertheless, we will pay additional amounts to the extent you would have been entitled to such amounts had you presented your debt security for payment on the last day of the 30-day period.

We will not pay any additional amounts for taxes on the debt securities except for taxes payable through deduction or withholding from payments of principal, premium or interest. Examples of the types of taxes for which we will not pay additional amounts include the following: estate or inheritance taxes, gift taxes, sales or transfer taxes, personal property or related taxes, assessments or other governmental charges. We will also not pay any additional amounts for taxes imposed pursuant to Sections 1471 through 1474 of the U.S. Internal Revenue Code of 1986, as amended, U.S. Treasury regulations or administrative guidance promulgated thereunder or any law implementing an intergovernmental approach thereto, or FATCA. We will pay stamp or other similar taxes that may be imposed by the Republic, the United States or any political subdivision or taxing authority in one of those two countries on the fiscal agency agreement or be payable in connection with the issuance of the debt securities.

Status of Debt Securities

The debt securities will:

- constitute our direct, unconditional, unsecured and unsubordinated obligations; and

- rank without any preference among themselves and equally with all of our other unsecured and unsubordinated obligations. It is understood that this provision shall not be construed so as to require us to make payments under the debt securities ratably with payments being made under any of our other debt securities.

Negative Pledge Covenant

If any debt securities are outstanding, we will not create or permit any security interests on our assets as security for any of our indebtedness or guarantees issued by us, unless the security interest also secures our obligations under the debt securities.

We may, however, create or permit a security interest:

- on any promissory debt securities or commercial paper discounted or otherwise provided as security to or issued or held by us created in favor of The Bank of Korea in the normal operation of The Bank of Korea's discount facilities or facilities for the funding of loans by us to our customers; or
- on any asset (or documents of title to such asset) incurred when the asset was purchased or improved to secure payment of the cost of the activity; or
- of a statutory nature arising in the ordinary course of our business but unrelated to our activities of borrowing or raising money; or
- on any real estate owned by us imposed by a tenant of such real estate as security for repayment of any key money paid by the tenant; or
- arising by operation of Korean law or given preference by law following our failure to meet an obligation, although we will not permit such a security interest to exist for more than 30 days.

Events of Default

Unless otherwise specified in the applicable prospectus supplement in connection with a particular offering of debt securities, each of the following constitutes an event of default with respect to any series of debt securities:

1. *Non-Payment*: we do not pay principal or interest or premium or deposit any sinking fund payment on any debt securities of the series when due and such failure to pay continues for 30 days.
2. *Breach of Other Obligations*: we fail to observe or perform any of the covenants in the series of debt securities (other than non-payment) for 60 days after written notice of the default is delivered to us at the corporate trust office of the fiscal agent in New York City by holders representing at least 10% of the aggregate principal amount of the debt securities of the series.
3. *Cross Default and Cross Acceleration*:
    - we default on any External Indebtedness, and, as a result, becomes obligated to pay an amount equal to or greater than US$10,000,000 in aggregate principal amount prior to its due date; or
    - we fail to pay when due, including any grace period, any of our External Indebtedness in aggregate principal amount equal to or greater than US$10,000,000 or we fail to pay when requested and required by the terms thereof any guarantee for External Indebtedness of another person equal to or greater than US$10,000,000 in aggregate principal amount.
4. *Moratorium/Default:*
    - the Republic declares a general moratorium on the payment of its External Indebtedness, including obligations under guarantees;

- the Republic becomes liable to repay prior to maturity any amount of External Indebtedness, including obligations under guarantees, as a result of a default under such External Indebtedness or obligations; or
- the international monetary reserves of the Republic become subject to a security interest or segregation or other preferential arrangement for the benefit of any creditors.

5. *Bankruptcy*:
   - we are declared bankrupt or insolvent by any court or administrative agency with jurisdiction over us;
   - we pass a resolution to apply for bankruptcy or to request the appointment of a receiver or trustee or similar official in insolvency;
   - a substantial part of our assets are liquidated; or
   - we cease to conduct the banking business.
6. *Cessation of Government Control or Failure of Support:* the Republic ceases to (directly or indirectly) control us or fails to provide financial support for us as required under Article 32 of the KDB Act as of the issue date of the debt securities of such series.

For purposes of the foregoing, "External Indebtedness" means any obligation for the payment or repayment of money borrowed that is denominated in a currency other than the currency of the Republic.

As used in paragraph 6 above, "control" means the acquisition or control of a majority of our voting share capital or the right to appoint and/or remove all or the majority of the members of our board of directors or other governing body, whether obtained directly or indirectly, and whether obtained by ownership of share capital, the possession of voting rights, contract or otherwise.

If an event of default occurs, any holder may declare the principal amount of debt securities that it holds to be immediately due and payable by written notice to us and the fiscal agent.

You should note that:

- *despite the procedure described above, no debt securities may be declared due and payable if we cure the applicable event of default before we receive the written notice from the debt security holder;*
- we are not required to provide periodic evidence of the absence of defaults; and
- the fiscal agency agreement does not require us to notify holders of the debt securities of an event of default or grant any debt security holder a right to examine the security register.

Modifications and Amendments; Debt Securityholders' Meetings

Each holder of a series of debt securities must consent to any amendment or modification of the terms of that series of debt securities or the fiscal agency agreement that would, among other things:

- change the stated maturity of the principal of the debt securities or any installment of interest;
- reduce the principal amount of such series of debt securities or the portion of the principal amount payable upon acceleration of such debt securities;
- change the debt security's interest rate or premium payable;
- change the currency of payment of principal, interest or premium;
- amend either the procedures provided for a redemption event or the definition of a redemption event;

- shorten the period during which we are not allowed to redeem the debt securities or grant us a right to redeem the debt securities which we previously did not have; or
- reduce the percentage of the outstanding principal amount needed to modify or amend the fiscal agency agreement or the terms of such series of debt securities.

We may, with the exception of the above changes, with the consent of the holders of at least $66\,^2/_3\%$ in principal amount of the debt securities of a series that are outstanding, modify and amend other terms of that series of debt securities.

We may at any time call a meeting of the holders of a series of debt securities to seek the holders of the debt securities' approval of the modification, or amendment, or obtain a waiver, of any provision of that series of debt securities. The meeting will be held at the time and place in the Borough of Manhattan in New York City as determined by the fiscal agent. The notice calling the meeting must be given at least 30 days and not more than 60 days prior to the meeting.

While an event of default with respect to a series of debt securities is continuing, holders of at least 10% of the aggregate principal amount of that series of debt securities may compel the fiscal agent to call a meeting of all holders of debt securities of that series.

Holders of debt securities who hold, in the aggregate, a majority in principal amount of the debt securities of the series that are outstanding at the time will constitute a quorum at a meeting. At the reconvening of any meeting adjourned for a lack of a quorum, the persons entitled to vote 25% in principal amount of the debt securities of the series that are outstanding at the time will constitute a quorum for taking any action set out in the original notice. To vote at a meeting, a person must either hold outstanding debt securities of the relevant series or be duly appointed as a proxy for a debt securityholder. The fiscal agent will make all rules governing the conduct of any meeting.

The fiscal agency agreement and a series of debt securities may be modified or amended, without the consent of the holders of the debt securities, to:

- add covenants made by us that benefit holders of the debt securities;
- surrender any right or power given to us;
- secure the debt securities;
- permit registered securities to be exchanged for bearer securities or relax or eliminate restrictions on the payment of principal, premium or interest on bearer securities to the extent permitted under United States Department of Treasury regulations, provided that holders of the debt securities do not suffer any adverse tax consequences as a result; and
- cure any ambiguity or correct or supplement any defective provision in the fiscal agency agreement or the debt securities, without materially and adversely affecting the interests of the holders of the debt securities.

Fiscal Agent

The fiscal agency agreement governs the duties of each fiscal agent. We may maintain bank accounts and a banking relationship with each fiscal agent. The fiscal agent is our agent and does not act as a trustee for the holders of the debt securities.

Further Issues of Debt Securities

We may, without the consent of the holders of the debt securities, create and issue additional debt securities with the same terms and conditions as any series of debt securities (or that are the same except for the amount of

the first interest payment and for the interest paid on the series of debt securities prior to the issuance of the additional debt securities). We may consolidate such additional debt securities with the outstanding debt securities to form a single series.

Description of Warrants

The description below summarizes some of the provisions of warrants for the purchase of debt securities that we may issue from time to time and of the warrant agreement. Copies of the forms of warrants and the warrant agreement are or will be filed as exhibits to the registration statement of which this prospectus is a part. Since it is only a summary, the description may not contain all of the information that is important to you as a potential investor in the warrants.

The description of the warrants that will be contained in the prospectus supplement will supplement this description and, to the extent inconsistent with this description, replace it.

General Terms of the Warrants

Each series of warrants will be issued under a warrant agreement to be entered into between us and a bank or trust company, as warrant agent. The prospectus supplement relating to the series of warrants will describe:

- the terms of the debt securities purchasable upon exercise of the warrants, as described above under "—Description of Debt Securities—General Terms of the Debt Securities";
- the principal amount of debt securities purchasable upon exercise of one warrant and the exercise price;
- the procedures and conditions for the exercise of the warrants;
- the dates on which the right to exercise the warrants begins and expires;
- whether and under what conditions the warrants may be terminated or canceled by us;
- whether and under what conditions the warrants and any debt securities issued with the warrants will be separately transferable;
- whether the warrants will be issued in bearer or registered form;
- whether the warrants will be exchangeable between registered and bearer form, and, if issued in registered form, where they may be transferred and registered; and
- other specific provisions.

Terms Applicable to Debt Securities and Warrants

Governing Law

The fiscal agency agreement, any warrant agreement and the debt securities and any warrants will be governed by the laws of the State of New York without regard to any principles of New York law requiring the application of the laws of another jurisdiction. Nevertheless, all matters governing our authorization, execution and delivery of the debt securities and the fiscal agency agreement and any warrants and warrant agreement by us will be governed by the laws of the Republic.

Jurisdiction and Consent to Service

We are owned by a foreign sovereign government and all of our directors and executive officers and some of the experts named in this prospectus are residents of Korea. In addition, all or most of our assets and the assets of the people named in the preceding sentence are located outside of the United States. For that reason, you may have difficultly serving process on us or the individuals described above in the United States or enforcing in a

U.S. court a U.S.-court judgment based on the U.S. federal securities laws. Our Korean counsel has informed us that there would be certain conditions to be met under Korean law regarding the enforceability in Korea, either in original actions or in actions for the enforcement of U.S.-court judgments, of civil liabilities based on the U.S. federal securities laws. The enforcement of U.S.-court judgments against KDB may be affected or limited by the general principle of good morals and other social order and the general principle of good faith and fairness provided in the Civil Code of Korea. The courts of Korea will recognize as a valid judgment and enforce any judgment obtained in a U.S. court without re-examination of the merits; provided, that (a) such judgment was finally and conclusively given by a court having valid jurisdiction in accordance with the international jurisdiction principles under Korean law and applicable treaties, (b) KDB was duly served with service of process (otherwise than by publication or similar means) in sufficient time to enable KDB to prepare our defense in conformity with applicable laws or responded to the action without being served with process, (c) in light of the substance of such judgment and the procedures of litigation, recognition of such judgment is not contrary to the public policy of Korea, and (d) judgments of the courts of Korea are accorded reciprocal treatment in the jurisdiction of the court which had issued such judgment or the requirements for the recognition of a foreign judgment in the jurisdiction of the court which had issued such judgment are neither manifestly inequitable nor substantially different in material respects from the requirements for recognition of a foreign judgment in Korea.

We have appointed the General Manager of our New York Branch, Mr. Byung Soo Kim, and the Deputy General Manager of our New York Branch, Mr. Ki Cheon Chang, and each of their successors in the future, as our authorized agents to receive service of process in any suit which a holder of any series of debt securities or warrants may bring in any state or federal court in New York City and we have accepted the jurisdiction of those courts for those actions. Our New York Branch is located at 320 Park Avenue, 32nd Floor, New York, New York 10022. These appointments are irrevocable as long as any amounts of principal, premium or interest remain payable by us to the Fiscal Agent under any series of debt securities or any warrants have not expired or otherwise terminated under their terms. If for any reason either of these two men ceases to act as our authorized agent or ceases to have an address in Manhattan, we shall appoint a replacement. The appointment of agents for receipt of service of process and the acceptance of jurisdiction of state or federal courts in New York City do not, however, apply to actions brought under the United States federal securities laws. We may also be sued in courts having jurisdiction over us located in the Republic.

We will irrevocably consent to any relief and process in connection with a suit against us in relation to the debt securities or warrants, including the enforcement or execution of any order or judgment of the court. To the extent permitted by law, we will waive irrevocably any immunity from jurisdiction to which we might otherwise be entitled in any suit based on any series of debt securities or warrants.

Foreign Exchange Controls

Before we may issue debt securities outside the Republic, the Minister of Economy and Finance of Korea must receive a report with respect to the issuance by us of debt securities in accordance with the Foreign Exchange Transaction Act and the Foreign Exchange Transaction Regulation of Korea. After issuance of debt securities outside the Republic, we are required to notify the Minister of Economy and Finance of such issuance. No further approval or authorization is required for us to pay principal of or interest on the debt securities.

Description of Guarantees to be Issued by Us

The description below summarizes some of the provisions of the guarantees that we may issue from time to time. Copies of the forms of guarantees are or will be filed as exhibits to the registration statement of which this prospectus is a part. Since it is only a summary, the description may not contain all of the information that is important to you as a potential beneficiary of a guarantee.

The description of a guarantee that will be contained in the prospectus supplement will supplement this description and, to the extent inconsistent with this description, replace it.

General Terms of the Guarantees

Each guarantee will be issued by us as guarantor. The prospectus supplement relating to a guarantee will specify:

- the relevant obligor and the obligations guaranteed under the guarantee;
- the nature and scope of the guarantee, including whether or not it is irrevocable and unconditional;
- the status of the guarantee in relation to our other obligations;
- the governing law of the guarantee; and
- other relevant provisions of the guarantee.

Description of Guarantees to be Issued by The Republic of Korea

The description below summarizes some of the provisions of the guarantees that the Republic may issue from time to time to guarantee our debt securities. Since it is only a summary, the description may not contain all of the information that is important to you as a potential beneficiary of a guarantee.

The prospectus supplement relating to a guarantee to be issued by the Republic will specify other specific provisions. The description of a guarantee to be issued by the Republic that will be contained in the prospectus supplement will supplement this description and, to the extent inconsistent with this description, replace it.

General Terms of the Guarantees

Each guarantee will be issued by the Republic as guarantor. The prospectus supplement relating to a guarantee will specify:

- the relevant obligor and the obligations guaranteed under the guarantee;
- the nature and scope of the guarantee, including whether or not it is irrevocable and unconditional;
- the status of the guarantee in relation to the Republic's other obligations;
- the governing law of the guarantee; and
- other relevant provisions of the guarantee.

LIMITATIONS ON ISSUANCE OF BEARER DEBT SECURITIES AND BEARER WARRANTS

Bearer securities will not be offered, sold or delivered in the United States or its possessions or to a United States person; except in certain circumstances permitted by United States tax regulations. Bearer securities will initially be represented by temporary global securities, without interest coupons, deposited with a common depositary in London for Euroclear and Clearstream for credit to designated accounts. Unless otherwise indicated in the prospectus supplement:

- each temporary global security will be exchangeable for definitive bearer securities on or after the date that is 40 days after issuance only upon receipt of certification of non-United States beneficial ownership of the temporary global security as provided for in United States tax regulations, provided that no bearer security will be mailed or otherwise delivered to any location in the United States in connection with the exchange; and
- any interest payable on any portion of a temporary global security with respect to any interest payment date occurring prior to the issuance of definitive bearer securities will be paid only upon receipt of certification of non-United States beneficial ownership of the temporary global security as provided for in United States tax regulations.

Bearer securities, other than temporary global debt securities, and any related coupons will bear the following legend: "Any United States person who holds this obligation will be subject to limitations under the United States federal income tax laws, including the limitations provided in Section 165(j) and 1287(a) of the Internal Revenue Code." The sections referred to in the legend provide that, with certain exceptions, a United States person who holds a bearer security or coupon will not be allowed to deduct any loss realized on the disposition of the bearer security, and any gain, which might otherwise be characterized as capital gain, recognized on the disposition will be treated as ordinary income.

For purposes of this section, "United States person" means:

- a citizen or resident of the United States;
- a corporation, partnership or other entity created or organized in or under the laws of the United States or any political subdivision thereof; or
- an estate or trust the income of which is subject to United States federal income taxation regardless of its source.

For purposes of this section, "United States" means the United States of America, including each state and the District of Columbia, its territories, possessions and other areas subject to its jurisdiction.

TAXATION

The following discussion summarizes certain Korean tax and U.S. federal income tax considerations that may be relevant to you if you invest in debt securities. This summary is based on laws, regulations, rulings and decisions in effect as of the date of this Prospectus. These laws, regulations, rulings and/or decisions may change; any such change could apply retroactively and could affect the continued validity of this summary.

This summary does not describe all of the tax considerations that may be relevant to you or your situation, particularly if you are subject to special tax rules. You should consult your tax adviser about the tax consequences of holding the debt securities, including the relevance to your particular situation of the considerations discussed below, as well as of state, local or other tax laws.

Korean Taxation

The following summary of Korean tax considerations applies to you so long as you are not:

- a resident of Korea;
- a corporation with registered head office or main office located in Korea;
- a corporation of which the place of effective management is located in Korea; or
- engaged in a trade or business in Korea through a permanent establishment or a fixed base to which the relevant income is attributable or with which the relevant income is effectively connected.

Tax on Interest Payments

Under current Korean tax laws, when we make payments of interest to you (excluding payments to your permanent establishment in Korea) on the debt securities denominated in a foreign currency, no amount will be withheld from such payments for, or on account of, taxes of any kind imposed, levied, withheld or assessed by Korea or any political subdivision or taxing authority thereof or therein, provided that the offering of the debt securities is deemed to be an overseas issuance under Korean tax law.

Tax on Capital Gains

You will not be subject to any Korean income or withholding taxes in connection with the sale, exchange or other disposition of the debt securities, if (i) such sale, exchange or disposition is made to other non-residents or non-Korean corporations (other than their permanent establishments in Korea) or (ii) such sale, exchange or disposition takes place outside Korea, provided that the issuance of the debt securities is deemed to be an overseas issuance under Korean tax law. If you sell, exchange or otherwise dispose of the debt securities to a Korean resident or a Korean corporation (or the Korean permanent establishment of a non-resident or a non-Korean corporation) and such sale, exchange or disposition is made within Korea, any gain realized on the transaction will be taxable at ordinary Korean withholding tax rates (the lower of (subject to the production of satisfactory evidence of the acquisition costs and certain direct transaction costs) 22% (including local income tax) of net gain or 11% (including local income tax) of the gross sale proceeds with respect to such transaction), unless an exemption is available under an applicable income tax treaty. For example, if you are a resident of the United States for the purposes of the income tax treaty currently in force between Korea and the United States, you are generally entitled to an exemption from Korean taxation in respect of any gain realized on a disposition of the debt securities, regardless of whether the disposition is to a Korean resident. For more information regarding tax treaties, please refer to the heading "—Tax Treaties" below.

Inheritance Tax and Gift Tax

If you die while you are the holder of the debt security, the subsequent transfer of the debt security by way of succession will be subject to Korean inheritance tax. Similarly, if you transfer the debt security as a gift, the

donee will be subject to Korean gift tax and you may be required to pay the gift tax if the donee fails to do so or the donee is a non-resident.

Stamp Duty

You will not be subject to any Korean securities transaction tax, stamp duty, registration tax or similar documentary tax in respect of or in connection with a transfer of any debt securities or in connection with the exercise of exchange rights or conversion rights that may be acquired with the debt securities.

Guarantees

Although there are no Korean tax laws, regulations, rulings or decisions specific to the payment under the guarantee herein, we believe any payments of interest on and principal amount of the debt securities (or the issue price if the debt securities were originally issued at a discount) by the Republic under the Republic's guarantee on the debt securities denominated in a foreign currency (provided that the offering of the debt securities is deemed to be an overseas issuance under Korean tax law) and issued by us or any payments of interest on and principal amount of the debt securities (or the issue price if the debt securities were originally issued at a discount) by us under our guarantee on the debt securities denominated in a foreign currency (provided that the offering of the debt securities is deemed to be an overseas issuance under Korean tax law) and issued by a third-party Korean issuer are not subject to withholding tax. Further details of the tax consequences of the holders of our debt securities guaranteed by the Republic or third-party debt securities guaranteed by us may be provided in the relevant prospectus supplement.

Tax Treaties

At the date of this prospectus, Korea has tax treaties with, among others, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, China, Czech Republic, Denmark, Egypt, Finland, France, Germany, Hungary, India, Indonesia, Ireland, Italy, Japan, Luxembourg, Malaysia, Mexico, Mongolia, the Netherlands, New Zealand, Norway, Pakistan, Philippines, Poland, Republic of Fiji, Romania, Singapore, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Tunisia, Turkey, the United Kingdom, the United States of America and Vietnam under which the rate of withholding tax on interest and dividends is reduced, generally to between 5% and 15%, and the tax on capital gains is often eliminated.

With respect to any gains subject to Korean withholding tax, as described under "—Tax on Capital Gains" above, you should inquire for yourself whether you are entitled to the benefit of a tax treaty with Korea. It will be your responsibility to claim the benefits of any tax treaty that may exist between your country and Korea in respect of capital gains, and to provide to the purchaser of the debt securities, or the relevant securities company handling the debt securities, as applicable, a certificate as to your country of tax residence. In the absence of sufficient proof, the purchaser, or the relevant securities company, as the case may be, must withhold tax at the normal rates.

Furthermore, in order to claim the benefit of a tax rate reduction or tax exemption available under the applicable tax treaties, you should submit to the payer of such Korean source 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 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, or a BO Application. 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), or an 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 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.

At present, Korea has not entered into tax treaties regarding inheritance or gift tax.

Warrants

A description of the tax consequences of an investment in warrants will be provided in the applicable prospectus supplement.

U.S. Federal Income Tax Considerations

The following discussion summarizes certain U.S. federal income tax considerations that may be relevant to you if you invest in debt securities and are a U.S. holder, and, to a limited extent, if you are a non-U.S. holder. You will be a U.S. holder if you are a beneficial owner of the debt securities and are an individual who is a citizen or resident of the United States, a U.S. domestic corporation, or any other person that is subject to U.S. federal income tax on a net income basis in respect of its investment in a debt security. This summary deals only with U.S. holders that hold debt securities as capital assets for tax purposes. This summary does not apply to you if you are an investor that is subject to special tax rules, such as:

- a bank or thrift;
- a real estate investment trust;
- a regulated investment company;
- an insurance company;
- a dealer in securities or currencies;
- a trader in securities or commodities that elects mark-to-market treatment;
- a person that will hold debt securities as a hedge against currency risk or as a position in a straddle or conversion transaction for tax purposes, or as part of a "synthetic security" or other integrated financial transaction;
- nonresident alien individuals present in the United States for more than 182 days in a taxable year;
- an entity taxed as a partnership or a partner therein;
- a tax exempt organization; or
- a person whose functional currency for tax purposes is not the U.S. dollar.

A non-U.S. holder is a beneficial owner of a debt security that is not a U.S. holder.

This summary is based on the Internal Revenue Code of 1986, as amended, or the Code, its legislative history, existing and proposed regulations promulgated thereunder, and published rulings and court decisions, all as currently in effect. These laws are subject to change, possibly on a retroactive basis. This summary addresses only U.S. federal income tax consequences, and does not address state, local, or non-U.S. tax laws, the alternative minimum tax, or the Medicare tax on net investment income or under special timing rules prescribed under section 451(b) of the Code. This summary does not discuss tax considerations relevant to the ownership and disposal of bearer securities.

This summary deals only with debt securities that are properly treated as indebtedness for U.S. federal income tax purposes. Any special U.S. federal income tax considerations relevant to a particular issuance of debt securities will be discussed in the applicable prospectus supplement. You should consult your tax adviser about the tax consequences of holding debt securities, including the relevance to your particular situation of the considerations discussed below, as well as of state, local or other tax laws.

Payments or Accruals of Interest

Payments or accruals of "qualified stated interest" (as defined below) on a debt security, but excluding any pre-issuance accrued interest, will be taxable to you as ordinary interest income at the time that you receive or accrue such amounts, in accordance with your regular method of tax accounting. If you use the cash method of tax accounting and you receive payments of interest pursuant to the terms of a debt security in a currency other than U.S. dollars, a "foreign currency", the amount of interest income you will realize will be the U.S. dollar value of the foreign currency payment based on the exchange rate in effect on the date you receive the payment regardless of whether you convert the payment into U.S. dollars. If you are an accrual-basis U.S. holder, the amount of interest income you will realize will be based on the average exchange rate in effect during the interest accrual period or, with respect to an interest accrual period that spans two taxable years, at the average exchange rate for the partial period within the taxable year. Alternatively, as an accrual-basis U.S. holder you may elect to translate all interest income on foreign currency-denominated debt securities at the spot rate on the last day of the accrual period (or the last day of the taxable year, in the case of an accrual period that spans more than one taxable year), or on the date that you receive the interest payment if that date is within five business days of the end of the accrual period. If you make this election you must apply it consistently to all debt instruments from year to year and you cannot change the election without the consent of the U.S. Internal Revenue Service, or the IRS. If you use the accrual method of accounting for tax purposes you will recognize foreign currency gain or loss on the receipt of a foreign currency interest payment if the exchange rate in effect on the date the payment is received differs from the rate applicable to a previous accrual of that interest income. 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 debt security.

Purchase, Sale and Retirement of Debt Securities

Initially, your tax basis in a debt security generally will equal the cost of the debt security to you. Your basis will increase by any amounts that you are required to include in income under the rules governing original issue discount and market discount, and will decrease by the amount of any amortized premium and any payments other than qualified stated interest made on the debt security. The rules for determining these amounts are discussed below. If you purchase a debt security that is denominated in a foreign currency, the cost to you, and therefore generally your initial tax basis, will be the U.S. dollar value of the foreign currency purchase price on the date of purchase calculated at the exchange rate in effect on that date. If the foreign currency-denominated debt security is traded on an established securities market and you are a cash-basis taxpayer, or if you are an accrual-basis taxpayer that makes a special election, then you will determine the U.S. dollar value of the cost of the debt security by translating the amount of the foreign currency that you paid for the debt security at the spot rate of exchange on the settlement date of your purchase. The amount of any subsequent adjustments to your tax basis in a foreign currency-denominated debt security in respect of original issue discount, market discount and premium will be determined in the manner described below. If you convert U.S. dollars into a foreign currency and then immediately use that foreign currency to purchase a debt security, you generally will not have any taxable gain or loss as a result of the purchase.

When you sell or exchange a debt security, or if a debt security is retired, you generally will recognize gain or loss equal to the difference between the amount you realize on the transaction, less any accrued qualified stated interest, which will be subject to tax in the manner described above, and your tax basis in the debt security. If you sell or exchange a debt security for a foreign currency, or receive foreign currency on the retirement of a debt security, the amount you will realize for U.S. federal income tax purposes generally will be the U.S. dollar value of the foreign currency that you receive calculated at the exchange rate in effect on the date the foreign currency debt security is disposed of or retired. If you dispose of a foreign currency debt security that is traded on an established securities market and you are a cash-basis U.S. holder, or if you are an accrual-basis holder that makes a special election, then you will determine the U.S. dollar value of the amount realized by translating the amount received at the spot rate of exchange on the settlement date of the sale, exchange or retirement. Furthermore, regardless of which of the foregoing methods applies, if Korean tax is withheld on the sale,

exchange or retirement of a debt security, the amount you realize will include the gross amount of the proceeds of that sale, exchange or retirement before deduction of the Korean tax.

The special election available to you if you are an accrual-basis taxpayer in respect of the purchase and sale of foreign currency debt securities traded on an established securities market, which is discussed in the two preceding paragraphs, 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 debt securities and foreign currency gain or loss, the gain or loss that you recognize on the sale, exchange or retirement of a debt security generally will be long-term capital gain or loss if you have held the debt security for more than one year. The Code provides preferential treatment under certain circumstances for net long-term capital gains recognized by individual investors. The ability of U.S. holders to offset capital losses against ordinary income is limited.

Under certain circumstances as described above under "Taxation—Korean Taxation—Tax on Capital Gains" and "Taxation—Korean Taxation—Tax Treaties", you may be subject to Korean withholding tax upon the sale or other disposition of a debt security. If you are eligible for benefits of the Korea-United States tax treaty, which exempts capital gains from tax in Korea, or if such Korean tax is not otherwise compulsory for you, you would not be eligible to credit against your U.S. federal income tax liability any such Korean tax withheld. In addition, any gain or loss that you recognize on the sale, exchange or retirement of a debt security generally will be treated as U.S. source income. Consequently, even if you are not eligible for an exemption from such taxes under the Korea-United States tax treaty or otherwise, you may not be able to claim a credit for any Korean tax imposed upon the sale, exchange or retirement of a debt security unless such credit can be applied (subject to applicable limitations) against tax due on other income treated as derived from foreign sources. You should consult your own tax advisers with respect to your eligibility for benefits under the Korea-United States tax treaty and, if you are not eligible for treaty benefits, your ability to credit any Korean tax withheld upon sale, exchange or retirement of the debt securities against your U.S. federal income tax liability.

Despite the foregoing, the gain or loss that you recognize on the sale, exchange or retirement of a foreign currency debt security 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 you held the debt security. This foreign currency gain or loss will not be treated as an adjustment to interest income that you receive on the debt security.

Original Issue Discount

If we issue debt securities at a discount from their stated redemption price at maturity, and the discount is equal to or more than the product of one-fourth of one percent (0.25%) of the stated redemption price at maturity of the debt securities multiplied by the number of whole years to their maturity (the "*de minimis* threshold"), the debt securities will be "Original Issue Discount Debt Securities." The difference between the issue price and their stated redemption price at maturity will be the "original issue discount." The "issue price" of the debt securities will be the first price at which a substantial amount of the debt securities are sold to the public (i.e., excluding sales of debt securities to underwriters, placement agents, wholesalers, or similar persons). The "stated redemption price at maturity" will include all payments under the debt securities 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 Company, at least annually during the entire term of a debt security at a single fixed interest rate or, subject to certain conditions, based on one or more interest indices.

If you invest in Original Issue Discount Debt Securities you generally will be subject to the special tax accounting rules for original issue discount obligations provided by the Code and certain Treasury regulations, or the OID regulations. You should be aware that, as described in greater detail below, if you invest in an Original Issue Discount Debt Security you generally will be required to include original issue discount in ordinary gross income for U.S. federal income tax purposes as it accrues, before you receive the cash attributable to that income.

In general, and regardless of whether you use the cash or the accrual method of tax accounting, if you are the holder of an Original Issue Discount Debt Security with a maturity greater than one year, you will be required to include in ordinary gross income the sum of the "daily portions" of original issue discount on that debt security for all days during the taxable year that you own the debt security. The daily portions of original issue discount on an Original Issue Discount Debt Security are determined by allocating to each day in any accrual period a ratable portion of the original issue discount allocable to that accrual period. Accrual periods may be any length and may vary in length over the term of an Original Issue Discount Debt Security, so long as no accrual period is longer than one year and each scheduled payment of principal or interest occurs on the first or last day of an accrual period. If you are the initial holder of the debt security, the amount of original issue discount on an Original Issue Discount Debt Security allocable to each accrual period is determined by:

(i) multiplying the "adjusted issue price" (as defined below) of the debt security at the beginning of the accrual period by a fraction, the numerator of which is the annual yield to maturity of the debt security and the denominator of which is the number of accrual periods in a year; and

(ii) subtracting from that product the amount, if any, payable as qualified stated interest allocable to that accrual period.

In the case of an Original Issue Discount Debt Security that is a floating rate debt security, both the "annual yield to maturity" and the qualified stated interest will be determined for these purposes as though the debt security had borne interest in all periods at a fixed rate generally equal to the rate that would be applicable to interest payments on the debt security on its date of issue or, in the case of some floating rate debt securities, the rate that reflects the yield that is reasonably expected for the debt security. Additional rules may apply if interest on a floating rate debt security is based on more than one interest index. The "adjusted issue price" of an Original Issue Discount Debt Security at the beginning of any accrual period will generally be the sum of its issue price, including any accrued interest, and the amount of original issue discount allocable to all prior accrual periods, reduced by the amount of all payments other than any qualified stated interest payments on the debt security in all prior accrual periods. All payments on an Original Issue Discount Debt Security, other than qualified stated interest, will generally be viewed first as payments of previously accrued original issue discount, to the extent of the previously accrued discount, with payments considered made from the earliest accrual periods first, and then as a payment of principal. The "annual yield to maturity" of a debt security is the discount rate, appropriately adjusted to reflect the length of accrual periods, that causes the present value on the issue date of all payments on the debt security to equal the issue price. As a result of this "constant yield" method of including original issue discount income, the amounts you will be required to include in your gross income if you invest in an Original Issue Discount Debt Security denominated in U.S. dollars will generally be less in the early years and greater in the later years than amounts that would be includible on a straight-line basis.

You generally may make an irrevocable election to include in income your entire return on a debt security (i.e., the excess of all remaining payments to be received on the debt security, including payments of qualified stated interest, over the amount you paid for the debt security) under the constant yield method described above. For debt securities purchased at a premium or bearing market discount in your hands, if you make this election you will also be deemed to have made the election (discussed below under "Premium and Market Discount") to amortize premium or to accrue market discount in income currently on a constant yield basis.

In the case of an Original Issue Discount Debt Security that is also a foreign currency-denominated debt security, you should determine the U.S. dollar amount includible as original issue discount for each accrual period by (i) calculating the amount of original issue discount allocable to each accrual period in the foreign currency using the constant yield method, and (ii) translating the foreign currency amount so determined at the average exchange rate in effect during that accrual period (or, with respect to an interest accrual period that spans two taxable years, at the average exchange rate for each partial period). Alternatively, you may translate the foreign currency amount so determined at the spot rate of exchange on the last day of the accrual period (or the last day of the taxable year, for an accrual period that spans two taxable years), or at the spot rate of exchange on the date of receipt, if that date is within five business days of the last day of the accrual period, provided that you

have made the election described under "—Payments or Accruals of Interest" above. Because exchange rates may fluctuate, if you are the holder of an Original Issue Discount Debt Security that is also a foreign currency debt security you may recognize a different amount of original issue discount income in each accrual period than would be the case if you were the holder of an otherwise similar Original Issue Discount Debt Security denominated in U.S. dollars. Upon the receipt of an amount attributable to original issue discount, 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 Debt Security, you will recognize 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 Debt Security, as the case may be, and the amount accrued, using the exchange rate applicable to such previous accrual.

If you purchase an Original Issue Discount Debt Security outside of the initial offering at a cost less than its "remaining redemption amount", or if you purchase an Original Issue Discount Debt Security in the initial offering at a price other than the debt security's issue price, you will also generally be required to include in gross income the daily portions of original issue discount, calculated as described above. However, if you acquire an Original Issue Discount Debt Security at a price greater than its adjusted issue price, you will be required to reduce your periodic inclusions of original issue discount to reflect the premium paid over the adjusted issue price. The remaining redemption amount for an Original Issue Discount Debt Security is the total of all future payments to be made on the debt security other than qualified stated interest.

Floating rate debt securities generally will be treated as "variable rate debt instruments" under the OID regulations. Accordingly, the stated interest on a floating rate debt security generally will be treated as qualified stated interest, and such a debt security will not have original issue discount solely as a result of the fact that it provides for interest at a variable rate. A floating rate debt security that does not qualify as a variable rate debt instrument will be subject to special rules (the "contingent payment regulations") that govern the tax treatment of debt obligations that provide for contingent payments ("contingent debt obligations"). A detailed description of the tax considerations relevant to U.S. holders of any such debt securities will be provided in the applicable prospectus supplement.

Certain debt securities may be redeemed prior to maturity, either at our option or at the option of the holder, or may have special repayment or interest rate reset features as indicated in the prospectus supplement. Original Issue Discount Debt Securities containing these features may be subject to rules that differ from the general rules discussed above. If you purchase Original Issue Discount Debt Securities with these features, you should carefully examine the prospectus supplement and consult your tax adviser about their treatment since the tax consequences with respect to original issue discount will depend, in part, on the particular terms and features of the debt securities.

If a debt security provides for a scheduled accrual period that is longer than one year (for example, as a result of a long initial period on a debt security with interest that is generally paid on an annual basis), then stated interest on the debt security will not qualify as "qualified stated interest" under the OID Regulations. As a result, the debt security would be an Original Issue Discount Debt Security. In that event, among other things, if you are a cash-method U.S. holder you will be required to accrue stated interest on the debt security under the rules for original issue discount described above, and regardless of your method of accounting for U.S. federal income tax purposes, you will be required to accrue original issue discount that would otherwise fall under the *de minimis* threshold.

Short-Term Debt Securities

The rules described above will also generally apply to Original Issue Discount Debt Securities with maturities of one year or less ("short-term debt securities"), but with some modifications.

First, the original issue discount rules treat none of the interest on a short-term debt security as qualified stated interest, but treat a short-term debt security as having original issue discount. Thus, all short-term debt

securities will be Original Issue Discount Debt Securities. Except as noted below, if you are a cash-basis holder of a short-term debt security and are not a bank, securities dealer, regulated investment company or common trust fund and you do not identify the short-term debt security as part of a hedging transaction you will generally not be required to accrue original issue discount currently, but you will be required to treat any gain realized on a sale, exchange or retirement of the debt security as ordinary income to the extent such gain does not exceed the original issue discount accrued with respect to the debt security during the period you held the debt security. You may not be allowed to deduct all of the interest paid or accrued on any indebtedness incurred or maintained to purchase or carry a short-term debt security until the maturity of the debt security or its earlier disposition in a taxable transaction. Notwithstanding the foregoing, if you are a cash-basis U.S. holder of a short-term debt security you may elect to accrue original issue discount on a current basis, in which 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 some cash method holders, including banks, securities dealers, regulated investment companies and common trust funds, generally will be required to include original issue discount on a short-term debt security in gross income on a current basis. Original issue discount will be treated as accruing for these purposes on a ratable basis or, at the election of the holder, on a constant yield basis based on daily compounding.

Second, regardless of whether you are a cash- or accrual-basis holder, if you are the holder of a short-term debt security you can elect to accrue any "acquisition discount" with respect to the debt security on a current basis. Acquisition discount is the excess of the debt security's stated redemption price at maturity (i.e., all amounts payable on the short-term debt security) over the purchase price. Acquisition discount will be treated as accruing ratably or, at the election of the holder, under a constant yield method based on daily compounding. If you elect to accrue acquisition discount, the original issue discount rules will not apply.

Finally, the market discount rules described below will not apply to short-term debt securities.

As described above, certain of the debt securities may be subject to special redemption features. These features may affect the determination of whether a debt security has a maturity of one year or less and thus is a short-term debt security. If you purchase debt securities with these features, you should carefully examine the prospectus supplement and consult your tax adviser about these features.

Premium and Market Discount

If you purchase a debt security at a cost greater than the debt security's remaining redemption amount, you will be considered to have purchased the debt security at a premium, and you may elect to amortize the premium as an offset to interest income, using a constant yield method, over the remaining term of the debt security. If you make this election, it generally will apply to all debt instruments that you hold at the time of the election, as well as any debt instruments that you subsequently acquire. In addition, you may not revoke the election without the consent of the IRS. If you elect to amortize the premium you will be required to reduce your tax basis in the debt security by the amount of the premium amortized during your holding period. Original Issue Discount Debt Securities purchased at a premium will not be subject to the original issue discount rules described above. In the case of premium on a foreign currency debt security, you should calculate the amortization of the premium in the foreign currency. Amortization deductions attributable to a period reduce interest payments in respect of that period, and therefore are translated into U.S. dollars at the rate that you use for those interest payments. Exchange gain or loss will be realized with respect to amortized premium on a foreign currency debt security based on the difference between the exchange rate computed on the date or dates the premium is amortized against interest payments on the debt security and the exchange rate on the date when the holder acquired the debt security. For a U.S. holder that does not elect to amortize premium, the amount of premium will be included in your tax basis when the debt security matures or is disposed of. Therefore, if you do not elect to amortize premium and you hold the debt security to maturity, you generally will be required to treat the premium as capital loss when the debt security matures.

If you purchase a debt security at a price that is lower than the debt security's remaining redemption amount, or in the case of an Original Issue Discount Debt Security, the debt security's adjusted issue price, by

0.25% or more of the remaining redemption amount, or adjusted issue price, multiplied by the number of remaining whole years to maturity, the debt security will be considered to bear "market discount" in your hands. In this case, any gain that you realize on the disposition of the debt security generally will be treated as ordinary interest income to the extent of the market discount that accrued on the debt security during your holding period. In addition, you could be required to defer the deduction of a portion of the interest paid on any indebtedness that you incurred or continued to purchase or carry the debt security. In general, market discount will be treated as accruing ratably over the term of the debt security, or, at your election, under a constant yield method. You must accrue market discount on a foreign currency debt security in the specified currency. The amount that you will be required to include in income in respect of accrued market discount will be the U.S. dollar value of the accrued amount, generally calculated at the exchange rate in effect on the date that you dispose of the debt security.

You may elect to include market discount in gross income currently as it accrues (on either a ratable or constant yield basis), in lieu of treating a portion of any gain realized on a sale of the debt security as ordinary income. If you elect to include market discount on a current basis, the interest deduction deferral rule described above will not apply. If you do make such an election, it will apply to all market discount debt instruments that you acquire on or after the first day of the first taxable year to which the election applies. The election may not be revoked without the consent of the IRS. Any accrued market discount on a foreign currency debt security 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 your taxable year).

Indexed Debt Securities and Other Debt Securities Providing for Contingent Payments

The contingent payment regulations generally require accrual of interest income on a constant yield basis in respect of contingent debt obligations at a yield determined at the time of issuance of the obligation, and may require adjustments to these accruals when any contingent payments are made. In addition, special rules may apply to floating rate debt securities if the interest payable on the debt securities is based on more than one interest index. We will provide a detailed description of the tax considerations relevant to U.S. holders of any debt securities that are subject to the special rules discussed in this paragraph in the relevant prospectus supplement.

Foreign Currency-Denominated Debt Securities and 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 is not entirely clear. A U.S. holder may be required to treat a foreign currency exchange loss relating to a foreign currency-denominated debt security as a reportable transaction if the loss exceeds $50,000 in a single taxable year if the U.S. holder is an individual or trust, or higher amounts for other U.S. holders. In the event the acquisition, ownership or disposition of a foreign currency-denominated debt security constitutes participation in a "reportable transaction" for purposes of these rules, a U.S. holder will be required to disclose its investment to the Internal Revenue Service, currently on IRS Form 8886. Prospective purchasers should consult their tax advisors regarding the application of these rules to the acquisition, ownership or disposition of foreign currency-denominated debt securities.

Specified Foreign Financial Assets

Individual U.S. holders that own "specified foreign financial assets" with an aggregate value in excess of $50,000 on the last day of the taxable year or $75,000 at any time during the taxable year are generally required to file an information statement along with their tax returns, currently on IRS 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 may include debt securities issued in certificated form) that are not held in accounts maintained by financial institutions. Higher reporting thresholds apply to certain individuals living abroad and to certain married individuals. 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. In addition, the statute of limitations for assessment of tax would be suspended, in whole or part. Prospective investors should consult their own tax advisors concerning the application of these rules to their investment in the debt securities, including the application of the rules to their particular circumstances.

Information Reporting and Backup Withholding

The paying agent must file information returns with the IRS in connection with debt security payments made to certain United States persons. If you are a United States person, you generally will not be subject to U.S. backup withholding tax on such payments if you provide your taxpayer identification number to the paying agent. You may also be subject to information reporting and backup withholding tax requirements with respect to the proceeds from a sale of the debt securities. If you are not a United States person, in order to avoid information reporting and backup withholding tax requirements you may have to comply with certification procedures to establish that you are not a United States person. The amount of any backup withholding from a payment to a United States or non-United States person will be allowed as a credit against the holder's U.S. federal income tax liability and may entitle the holder to a refund, provided that the required information is timely furnished to the IRS.

Foreign Account Tax Compliance Act

We or a non-U.S. financial institution through which payments are made may be required pursuant to FATCA to collect and provide to the IRS or another tax authority substantial information regarding investors in debt securities. As such, holders may be required to provide information and tax documentation regarding their tax identities as well as that of their direct and indirect owners. Moreover, we, any paying agents, and other 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) paid to an investor who does not provide information sufficient for the institution to determine whether the investor is a United States person or should otherwise be treated as holding a "United States account" of the institution, or to an investor that is, or holds the debt securities directly or indirectly through, a non-U.S. financial institution that is not in compliance with FATCA. Under a grandfathering rule, this withholding tax will not apply unless the debt securities are issued or materially modified after the date that is six months after the date on which final U.S. Treasury Regulations defining the term "foreign passthru payment" are filed with the U.S. Federal Register.

By purchasing the debt securities, U.S. holders agree to provide an IRS form W-9, and whatever other information may be necessary for us to comply with these reporting obligations. If an amount of, or in respect of, U.S. withholding tax were to be deducted or withheld from payments on the debt securities as a result of an investor's failure to comply with these rules, neither we nor any paying agent nor any other person would be required to pay additional amounts with respect to any debt securities as a result of the deduction or withholding of such tax. You should consult your tax advisors on how FATCA may apply to payments you receive under the debt securities.

Warrants

A description of the tax consequences of an investment in warrants will be provided in the applicable prospectus supplement.

Guarantees

A description of the tax consequences of an investment in guarantees will be provided in the applicable prospectus supplement.

PLAN OF DISTRIBUTION

We and the Republic, if a guarantee by the Republic is furnished, may sell or issue the debt securities, warrants or guarantees in any of three ways:

- through underwriters or dealers;
- directly to one or more purchasers; or
- through agents.

The prospectus supplement relating to a particular series of debt securities, warrants or guarantees will state:

- the names of any underwriters;
- the purchase price of the securities;
- the proceeds to us from the sale;
- any underwriting discounts and other compensation;
- the initial public offering price;
- any discounts or concessions allowed or paid to dealers; and
- any securities exchanges on which the securities will be listed.

Any underwriter involved in the sale of securities will acquire the securities for its own account. The underwriters may resell the securities from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices to be determined at the time of sale. The securities may be offered to the public either by underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Unless the prospectus supplement states otherwise, certain conditions must be satisfied before the underwriters become obligated to purchase securities from us and the Republic, if applicable, and they will be obligated to purchase all of the securities if any are purchased. The underwriters may change any initial public offering price and any discounts or concessions allowed or reallowed or paid to dealers.

If we and the Republic, if a guarantee by the Republic is furnished, sell any securities through agents, the prospectus supplement will identify the agent and indicate any commissions payable by us and the Republic, if applicable. Unless the prospectus supplement states otherwise, all agents will act on a best efforts basis and will not acquire the securities for their own account.

We and the Republic, if a guarantee by the Republic is furnished, may authorize agents, underwriters or dealers to solicit offers by certain specified entities to purchase the securities from us and the Republic, if applicable, at the public offering price set forth in a prospectus supplement pursuant to delayed delivery contracts. The prospectus supplement will set out the conditions of the delayed delivery contracts and the commission receivable by the agents, underwriters or dealers for soliciting the contracts.

We and the Republic, if a guarantee by the Republic is furnished, may offer debt securities as consideration for the purchase of other of our debt securities, either in connection with a publicly announced tender offer or in privately negotiated transactions. The offer may be in addition to or in lieu of sales of debt securities directly or through underwriters or agents. We may offer guarantees as consideration for transactions involving securities of other issuers.

Agents and underwriters may be entitled to indemnification by us against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or to contribution from us with respect to certain payments which the agents or underwriters may be required to make. Agents and underwriters may be customers of, engage in transactions with, or perform services (including commercial and investment banking services) for us and the Republic in the ordinary course of business.

LEGAL MATTERS

The validity of any particular series of debt securities or warrants issued with debt securities or any guarantees will be passed upon for us and any underwriters or agents by United States and Korean counsel identified in the related prospectus supplement.

AUTHORIZED REPRESENTATIVES IN THE UNITED STATES

Our authorized agents in the United States are Mr. Byung Soo Kim, General Manager of our New York Branch, or Mr. Ki Cheon Chang, Deputy General Manager of our New York Branch. The address of our New York Branch is 320 Park Avenue, 32nd Floor, New York, New York 10022. The authorized representative of the Republic in the United States is Mr. Minsik Shin, Financial Attaché, Korean Consulate General in New York, located at 460 Park Avenue, 9th Floor, New York, New York 10022.

OFFICIAL STATEMENTS AND DOCUMENTS

Our President and Chairman of the Board of Directors, in his official capacity, has supplied the information set forth under "The Korea Development Bank" (except for the information set out under "The Korea Development Bank—Business—Government Support and Supervision"). Such information is stated on his authority.

The Minister of Economy and Finance of The Republic of Korea, in his official capacity, has supplied the information set out under "The Korea Development Bank—Business—Government Support and Supervision" and "The Republic of Korea." Such information is stated on his authority. The documents identified in the portion of this prospectus captioned "The Republic of Korea" as the sources of financial or statistical data are official public documents of the Republic or its agencies and instrumentalities.

EXPERTS

Our separate financial statements as of and for the years ended December 31, 2020 and 2019 have been included in this prospectus in reliance upon the report of Nexia Samduk, independent auditors, appearing elsewhere herein, and upon the authority of said firm as experts in accounting and auditing.

FORWARD-LOOKING STATEMENTS

This prospectus includes future expectations, projections or "forward-looking statements", as defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. The words "believe", "expect", "anticipate", "estimate", "project" and similar words identify forward-looking statements. In addition, all statements other than statements of historical facts included in this prospectus are forward-looking statements. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we can give no assurance that such expectations will prove correct. This prospectus discloses important factors that could cause actual results to differ materially from our expectations, or Cautionary Statements. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the Cautionary Statements.

Factors that could adversely affect the future performance of the Korean economy include:

- the occurrence of severe health pandemics, such as the ongoing global outbreak of the COVID-19 pandemic, or other severe health epidemics in Korea or other parts of the world, such as the Middle East Respiratory Syndrome outbreak in Korea in 2015;
- adverse conditions or developments in the economies of countries and regions that are important export markets for Korea, such as the United States, Europe, Japan and China, or in emerging market economies in Asia or elsewhere, including as a result of deteriorating economic and trade relations between the United States and China and increased uncertainties resulting from the United Kingdom's exit from the European Union, or Brexit;
- 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 yuan and the overall impact of Brexit on the value of the Korean Won), interest rates, inflation rates or stock markets;
- difficulties in the financial sectors in Europe and elsewhere and increased sovereign default risks in select countries and the resulting adverse effects on the global financial markets;
- a substantial decrease in tax revenues and a substantial increase in the Government's expenditures for fiscal stimulus measures, unemployment compensation and other economic and social programs, in particular in light of the Government's ongoing efforts to provide emergency relief payments relating to COVID-19 to households and corporations in need of funding, which, together, would lead to an increased Government budget deficit as well as an increase in the Government's debt;
- declines in consumer confidence and a slowdown in consumer spending, in particular due to the outbreak of infectious diseases, including the ongoing global outbreak of the COVID-19 pandemic;
- increasing levels of household debt;
- increasing delinquencies and credit defaults by consumer and small- and medium-sized enterprise borrowers;
- substantial decreases in the market prices of Korean real estate;
- a deterioration in the financial condition or performance of small- and medium-sized enterprises and other companies in Korea due to the Korean government's policies to increase minimum wages and limit working hours of employees;
- the continued growth of the Chinese economy, to the extent its benefits (such as increased exports to China) are outweighed by its costs (such as competition in export markets or for foreign investment and the relocation of the manufacturing base from Korea to China), as well as a slowdown in the growth of China's economy, which is Korea's most important export market;
- investigations of large Korean business groups and their senior management for bribery, embezzlement and other possible misconduct relating to the impeachment and dismissal of former President Park Geun-hye in March 2017;

- the economic impact of any pending or future free trade agreements or of any changes to existing free trade agreements;
- increased reliance on exports to service foreign currency borrowings, which could cause friction with Korea's trading partners;
- social and labor unrest;
- financial problems or lack of progress in the restructuring of Korean conglomerates, 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 aging population in Korea or decreases in economic productivity due to the declining population size in Korea;
- geo-political uncertainty and risk of further attacks by terrorist groups around the world;
- 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, in particular the ongoing trade disputes with Japan;
- political uncertainty or increasing strife among or within political parties in Korea;
- natural or man-made disasters that have a significant adverse economic or other impact on Korea or its major trading partners;
- hostilities or political or social tensions involving oil-producing countries in the Middle East (including a potential escalation of hostilities between the United States and Iran) and Northern Africa and any material disruption in the supply of oil or sudden changes in the price of oil;
- 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.

FURTHER INFORMATION

We filed a registration statement with respect to the securities with the Securities and Exchange Commission under the Securities Act of 1933, as amended, and its related rules and regulations. You can find additional information concerning ourselves and the securities in the registration statement and any pre- or post-effective amendment, including its various exhibits, which may be inspected at the public reference facilities maintained by the Securities and Exchange Commission at 100 F Street, N.E., Washington, D.C. 20549. These filings are also available to the public from the Securities and Exchange Commission's website at http://www.sec.gov.

HEAD OFFICE OF THE BANK

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