

WIN Semiconductors Corp.

(incorporated as a company limited by shares in Taiwan, the Republic of China)

US\$500,000,000

Currency-Linked Zero Coupon Convertible Bonds due 2026

We are offering (this "Offering") US\$500,000,000 aggregate principal amount of US dollar denominated currency-linked zero coupon convertible bonds due 2026 (the "Bonds"), through UBS AG Hong Kong Branch (the "Initial Purchaser").

The Bonds will be direct, unconditional, unsubordinated and unsecured obligations of WIN Semiconductors Corp. (the "Company" or "Issuer", and together with its subsidiaries, the "Group"), and will rank *pari passu* without any preference or priority among themselves and with all of the Company's other present and future direct, unconditional, unsubordinated and unsecured obligations, except as otherwise provided herein. Unless the Bonds have been previously redeemed, repurchased and canceled or converted, the Company will redeem the Bonds at the Settlement Equivalent of 95.11% of the outstanding principal amount thereof at maturity. The Bonds will not bear any interest.

The Bonds will be convertible into our common shares, par value NT\$10.00 per share (the "Shares" or the "Common Shares"), during the period from and including April 15, 2021 to and including January 4, 2026 (subject to certain restrictions) at a conversion price which will initially be NT\$497.00 per Share (subject to adjustment as set forth in "Description of the Bonds — Conversion — Adjustments to the Conversion Price") determined on the basis of a fixed exchange rate of NT\$27.9840 = US\$1.00 (the "Fixed Exchange Rate") applicable on conversion of the Bonds. The Shares are currently listed under the trading code "3105" on the Taipei Exchange (the "TPEx") in the Republic of China (the "ROC") and application will be made to list the Shares issued on conversion of the Bonds on the TPEx. The closing price per Share on the TPEx on January 7, 2021 was NT\$355.00 (equivalent to US\$12.69 at the exchange rate of NT\$27.9840 to US\$1.00 based on the Taipei Forex Inc. Taiwan Dollar 11:00 Fixing Rate on January 7, 2021). See "Risk Factors — Risks Related to Our Shares and the Bonds."

At any time after January 14, 2024, by giving the requisite notice, we may redeem the Bonds, in whole or in part, at the Settlement Equivalent of the applicable Early Redemption Amount (as defined herein), if the closing price (converted into U.S. Dollars at the Prevailing Rate (as defined herein)) of the Shares for 20 out of the 30 consecutive Trading Days (as defined herein) immediately prior to the date upon which notice of such redemption was given, is at least 130% of the quotient of the Early Redemption Amount divided by the Conversion Ratio (as defined herein) then in effect. In addition, we may redeem the Bonds then outstanding, in whole but not in part, at the Settlement Equivalent of the applicable Early Redemption Amount if (i) more than 90% in principal amount of the Bonds originally issued has been redeemed, repurchased and canceled or converted or (ii) we become obligated to pay Additional Amounts (as defined herein) as a result of certain changes in the taxation in the ROC occurring on or after the Closing Date, which is expected to be on January 14, 2021.

You may require us to repurchase the Bonds, in whole or in part (being US\$200,000 in principal amount or any integral multiples thereof), at the Settlement Equivalent of 97.04 % of the principal amount in US dollars with respect to your Bonds on January 14, 2024. You may also require us to repurchase the Bonds at the Settlement Equivalent of the applicable Early Redemption Amount, if (i) the Shares cease to be listed or admitted to trading on the TPEx, (ii) trading in the Common Shares is suspended for 30 consecutive Trading Days or (iii) there is a Change of Control (as defined herein).

Application will be made for the listing and quotation of the Bonds on the Singapore Exchange Securities Trading Limited (the "SGX-ST"). The SGX-ST assumes no responsibility for the correctness of any statements made, opinions expressed or reports contained in this offering memorandum. Approval in-principle for the listing and quotation of the Bonds is not to be taken as an indication of the merits of this Offering, the Company, the Group, its subsidiaries, or any of their associated companies or the Bonds. Prior to this Offering, there has been no market anywhere for the Bonds, or any market outside the ROC for the Common Shares.

Notification pursuant to Section 309B of the Securities and Futures Act, Chapter 289 of Singapore, as modified or amended from time to time (the "SFA")—The Bonds are prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018) 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).

Investing in and holding the Bonds involve a high degree of risk. See "Risk Factors" beginning on page 12 for a discussion of certain factors to be considered in connection with an investment in, and the holding of, the Bonds.

The Bonds and the Shares to be issued upon conversion of the Bonds have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the "Securities Act") or any state securities laws. The Bonds are being offered and sold only outside the United States in reliance on Regulation S under the Securities Act ("Regulation S"). The Bonds are sold subject to restrictions on transferability and resale and may not be transferred or resold except as permitted under the Securities Act and the applicable securities laws of any state or other jurisdiction pursuant to registration thereunder or exemption from registration. As a prospective purchaser, you should be aware that you may be required to bear the financial risks of this investment for an indefinite period of time. The Bonds are not being directly or indirectly offered in the ROC. See "Transfer Restrictions" and "Plan of Distribution."

The Bonds will be represented by beneficial interests in one or more global bonds registered in the name of a nominee of the common depositary for Euroclear Bank SA/NV ("Euroclear") and Clearstream Banking S.A. ("Clearstream"). Except as described herein, beneficial interests in the global bonds will be shown on, and transfers thereof will be effected only through, records maintained by Euroclear and Clearstream and their participants. The Initial Purchaser expects to deliver the Bonds to purchasers' accounts on or about January 14, 2021.

Bonds Issue Price: 100%

Sole Global Coordinator and Sole Bookrunner

UBS

Offering memorandum dated January 7, 2021

You should rely only on the information contained in this offering memorandum. Neither we nor the Initial Purchaser has authorized anyone to provide you with different information. Neither we nor the Initial Purchaser is making an offer of these securities in any state or jurisdiction where the offer is not permitted. This offering memorandum does not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities to which it relates or an offer to sell or the solicitation of an offer to buy such securities by any person in any circumstances in which such offer or solicitation is unlawful. You should not assume that the information contained in this offering memorandum is accurate as of any date other than the date of this offering memorandum. Our business, financial condition, results of operations and prospects may have changed since that date.

Except as described below, we accept no responsibility for the information contained in this offering memorandum. We, having made all reasonable enquiries, confirm that this offering memorandum contains all information with respect to us, our consolidated subsidiaries, the Bonds and the Shares to be delivered upon conversion of the Bonds that is material in the context of the issue and offering of the Bonds, that the information contained in this offering memorandum is true and accurate in all material respects and is not misleading, that the opinions and intentions expressed in this offering memorandum are honestly held and have been reached after considering all relevant circumstances and are based on reasonable assumptions, that there are no other facts, the omission of which would, in the context of the issue and offering of the Bonds, make this offering memorandum as a whole or any of such information or the expression of any such opinions or intentions misleading in any material respects and that all reasonable enquiries have been made by us to verify the accuracy of such information and that this offering memorandum does not contain an untrue statement of a material fact or omit to state a material fact required to be stated or necessary in order to make the statements, in the light of the circumstances under which they are made, not misleading. The information contained in the section entitled "Appendix A — The Securities Market of the ROC" has been extracted from publicly available resources. However, such information has not been verified by us, the Initial Purchaser or any of our or the Initial Purchaser's respective affiliates or advisors in connection with this offering.

The distribution of this offering memorandum and the offering and sale of the Bonds, in certain jurisdictions may be restricted by law. Persons into whose possession this offering memorandum comes are required by us and the Initial Purchaser to inform themselves about and to observe any such restrictions. For a description of certain further restrictions on the offering and sale of the Bonds, and distribution of this offering memorandum, see "Plan of Distribution" and "Transfer Restrictions." This offering memorandum does not constitute an offer of, or an invitation by or on behalf of us or the Initial Purchaser to subscribe for or purchase any of the Bonds in any jurisdiction in which such offer or invitation would be unlawful. This offering memorandum may be used only for the purposes for which it has been published.

ENFORCEABILITY OF FOREIGN JUDGMENTS IN THE ROC

We are a company limited by shares and incorporated under the Company Act of the ROC. Substantially all of our Directors and executive officers and certain of the experts named in this offering memorandum are residents of the ROC and a significant portion of our assets and the assets of such persons are located in the ROC. As a result, it may be difficult for investors to effect service of process upon the Company or any of these persons outside of the ROC, or to enforce judgments obtained outside of the ROC against us or such persons in the ROC, including those predicated upon the civil liability provisions of the federal securities laws of the United States. Any final judgment obtained against us in any court other than the courts of the ROC with respect to any legal suit or proceeding arising out of or relating to our Common Shares to be issued upon conversion of the Bonds or Bonds will be enforced by the courts of the ROC without further review of the merits only if the court of the ROC in which enforcement is sought is satisfied that:

- the court rendering the judgment had jurisdiction over the subject matter according to the laws of the ROC;
- the judgment and the court procedures resulting in the judgment are not contrary to the public order or good morals of the ROC;
- the judgment is a final judgment for which the period of appeal has expired or from which no appeal can be taken;
- if the judgment was rendered by default by the court rendering the judgment, (i) the Company or such persons were duly served within a reasonable period of time within the jurisdiction of such court in accordance with the laws and regulations of such jurisdiction, or (ii) process was served on the Company or such persons with judicial assistance of the ROC; and
- judgments of the courts of the ROC are recognized in the jurisdiction of the court rendering the judgment on a reciprocal basis.

A party seeking to enforce a foreign judgment in the ROC would, except under limited circumstances, be required to obtain foreign exchange approval from the Central Bank of the Republic of China (Taiwan), for the remittance out of the ROC of any amounts exceeding US\$100,000 or its equivalent recovered in respect of such judgment denominated in a currency other than NT dollars. See "Appendix B — Foreign Investment and Exchange Controls in the ROC."

FORWARD-LOOKING STATEMENTS

Certain statements in this offering memorandum constitute forward-looking statements. All statements other than statements of historical facts included in this offering memorandum, including, without limitation, those regarding our sales, costs and expenses, profitability and anticipated capital expenditure in future periods, business strategy, plans and objectives of management for future operations (including development plans and objectives relating to our products) and expected growth in consumer demand and other industry trends are forward-looking statements. You can identify some, but not all, of these forward-looking statements by terms such as "expects," "plans," "intends," "believes," "estimates," "may," "will," "should," "would" and "could."

We have based these forward-looking statements on our current expectations and projections about future events. Although we believe that these expectations and projections are reasonable, these forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements.

Important factors that could cause our actual results or performance to differ materially from those in the forward-looking statements include, among others:

- the volatility of the semiconductor and electronics industry;
- general economic, political and social conditions and developments in the ROC, the PRC and other jurisdictions in which we operate our business;
- market acceptance of our products;
- outlook of the major and emerging end markets for our products, such as smartphones, IoT, Wi-Fi 6, base stations and optical communications;
- our ability to develop new technologies successfully and remain a technological leader;
- the increased competition from other companies and our ability to retain and increase our market share;
- our ability to maintain control over expansion and facility modifications;
- our reliance on certain major customers;
- our ability to generate growth and profitability;
- our ability to hire and retain qualified personnel;
- our ability to acquire required equipment and supplies necessary to meet business needs;
- our continued ability to secure funding to meet our liquidity needs and investment objectives;
- fluctuations in foreign currency rates and our ability to manage such risks; and
- other risks identified in the "Risk Factors" section of this offering memorandum

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. We undertake no obligation to publicly update or revise any forward-looking statements whether as a result of new information, future events or otherwise. In light of the foregoing and the risks, uncertainties and assumptions in "Risk Factors" and elsewhere in this offering memorandum, the forward-looking events in this offering memorandum are not

guarantees of future performance and might not occur and our actual results could differ materially from those anticipated in those forward-looking statements.	

CERTAIN CONVENTIONS AND OTHER DATA

Unless otherwise indicated, the following references in this offering memorandum have the following meaning:

- "5G" means fifth-generation standard for cellular network technology.
- "ADAS" means advanced driver-assistance systems.
- "APD" means avalanche photodiode.
- "AR" means augmented reality.
- "AS9100" means AS9100 Aerospace Quality Management System, a stringent quality management requirement covering aviation and space related areas.
- "Articles of Incorporation" means our Articles of Incorporation, as amended from time to time.
- "Avago" means Broadcom Inc. or any of its subsidiaries, as the case may apply.
- "BiHEMT" means the integration of HBT and pHEMT.
- "Bonds" means to US\$500,000,000 aggregate principal amount of currency-linked zero coupon convertible bonds due 2026.
- "Board" or "Board of Directors" means the board of Directors of our Company.
- "CAGR" means compound annual growth rate.
- "Cable TV" means Community Access Television.
- "CBC" means the Central Bank of the Republic of China.
- "Chainwin Cayman" means Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd., a subsidiary of the Company.
- "CM/Chainwin" means Jiangsu CM/Chainwin Agriculture Development Co., Ltd.
- "Director(s)" means director(s) of our Company.
- "EEL" means edge-emitting laser.
- "FSC" means the Financial Supervisory Commission, ROC.
- "GaAs" means gallium arsenide.
- "GaN" means gallium nitride.
- "Global Bond" means the Bonds that will be represented by one or more global certificates.
- "GPS" means global positioning systems.
- "HBT" means heterojunction bipolar transistor.
- "HEMT" means high electron mobility transistor.

- "Holder" and "Bondholder" in relation to a Bond means the person in whose name a Bond is registered in the Bond register.
- "IC" means integrated circuit.
- "IDMs" means integrated device manufacturers.
- "IFRS" means International Financial Reporting Standards.
- "Initial Purchaser" refers to UBS AG Hong Kong Branch.
- "InP" means indium phosphide.
- "IoT" means Internet of things.
- "ISO" means International Standards Organization.
- "LD" means laser diode.
- "LDMOS" means laterally-diffused metal-oxide semiconductor.
- "LiDAR" means light detection and ranging.
- "LNA" means low noise amplifier.
- "LTE" means Long Term Evolution, a standard for wireless communication of high-speed data for mobile phones and data terminals.
- "MBE" means molecular-beam epitaxy.
- "MIMO" means multiple-input-multiple-output.
- "MMIC" means monolithic microwave integrated circuits.
- "MOCVD" means metal organic chemical vapor deposition.
- "MOEA" means Ministry of Economic Affairs, ROC.
- "MXIC" means Macronix International Co. Ltd.
- "OEM" means original equipment manufacturer.
- "PAs" means power amplifiers.
- "PD" means photodiode.
- "pHEMTs" means pseudomorphic high electron mobility transistors.
- "PIN" means a junction with a wide, undoped intrinsic semiconductor region between a p-type semiconductor and an n-type semiconductor region.
- "PINHEMT" means the integration of pHEMTs and PIN diodes.
- "PRC" or "China" means People's Republic of China.
- "QDII" means a qualified domestic institutional investor.

- "R&D" means research and development.
- "RF" means radio frequency.
- "RFFE" means RF front end.
- "RFICs" means radio frequency integrated circuits.
- "ROC" or "Taiwan" means Republic of China.
- "ROC Company Act" means Company Act of the ROC, as amended.
- "ROC SFB" means the Securities and Futures Bureau, ROC.
- "Securities Act" means the U.S. Securities Act of 1933, as amended.
- "SGX-ST" means Singapore Exchange Securities Trading Limited.
- "Shares", "Common Stock" or "Common Shares" means our common shares with par value NT\$10.0 per share.
- "Skyworks" means Skyworks Solutions, Inc.
- "Taiwan IFRS" means the "Regulations Governing the Preparation of Financial Reports by Securities Issuers" and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations and Standard Interpretations Committee Interpretations as endorsed by the FSC.
- "ToF" means Time of Flight.
- "TPEx" means the Taipei Exchange, formerly known as GreTai Securities Market.
- "TWSE" means Taiwan Stock Exchange Corporation.
- "United States" or "U.S." means the United States of America.
- "VCSEL" means vertical-cavity surface-emitting laser.
- "VR" means virtual reality.
- "VSAT" means very-small-aperture terminal.
- "Wi-Fi" means wireless fidelity.
- "WLAN" means wireless local area network.

Where the context so permits or requires, words importing the singular number include the plural and vice versa and words importing the masculine gender include the feminine and neuter genders and vice versa.

Certain names with Chinese characters have been translated into English names. Such translations are provided solely for the convenience of investors and should not be construed as representations that the English names actually represent the Chinese characters.

In this offering memorandum, the terms "we," "us," "our," the "Company," "Group," "WIN" and words of similar import refer to WIN Semiconductors Corp. itself or to WIN Semiconductors Corp. and its consolidated subsidiaries, as the context requires.

All references to "United States dollars," "US dollars" and "US\$" are to United States dollars, references to "New Taiwan dollars," "NT dollars" and "NT\$" are to New Taiwan dollars, references to "HK Dollars" and "HK\$" are to Hong Kong dollars and references to "Renminbi" and "RMB" are to Renminbi.

As the Shares are listed on the TPEx, our financial statements are required to be presented in New Taiwan dollars, the lawful currency of Taiwan.

Unless expressly stated otherwise, all financial information, description and other information regarding our financial condition and results of operations as of and for the years ended December 31, 2017, 2018 and 2019 and as of and for the nine months ended September 30, 2019 and 2020 included in this offering memorandum are presented on a consolidated basis. Our consolidated financial statements as of and for the years ended December 31, 2017, 2018 and 2019 have been audited by KPMG, our independent auditors. Our unaudited condensed consolidated financial statements as of and for the nine months ended September 30, 2019 and 2020 have been reviewed by our independent auditors.

In this offering memorandum, where information has been presented in thousands, millions or billions of units, amounts may have been rounded up or down. Accordingly, the total of columns or rows of numbers in tables may not be equal to the apparent total of the individual items and actual numbers may differ from those contained herein due to rounding.

We have compiled all industry and market information and statistics contained in this offering memorandum from various published and private sources, which may be inconsistent with other information compiled elsewhere. Neither we, nor the Initial Purchaser, have independently verified the accuracy of any of such information.

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SUMMARY

The following summary is qualified in its entirety by, and is subject to, the more detailed information and our Consolidated Financial Statements and notes thereto, included in this offering memorandum. For a discussion of certain factors that should be considered in connection with an investment in the Bonds, see "Risk Factors."

Overview

We are a leading III-V compound foundry player globally and according to Strategy Analytics, we are the world's largest GaAs foundry player, with a global market share of 76.1% in terms of revenue in 2019, according to Strategy Analytics.

Our products power modern communication systems and are used in a wide range of products including smartphones, tablet computers, cellular networks, base stations, satellite communications, automotive electronics, and digital consumer electronics.

Founded in October 1999, we were the first pure-play 6-inch GaAs foundry in the world. We manufacture semiconductor devices on GaAs wafers based on proprietary circuitry designs provided by our customers, which include world-leading IDMs and fabless design houses. Our products are integrated circuits consisting of a large number of building blocks called HBTs and pHEMTs, fabricated on GaAs wafers and arranged according to a circuitry layout designed by our customers. Our different customers' proprietary circuitry designs serve their chips' unique functionalities. Most of our products belong to the general categories of high frequency and high power RFICs and optoelectronic devices used for applications ranging from mobile communications, WLAN, base stations, 3D sensing, Datacom and satellite communications.

We have the largest production capacity among the world's dedicated III-V compound foundries. We believe that we are among the leaders of fabrication process technology in the global III-V compound market. We aim to provide our customers leading-edge technologies and sufficient manufacturing capacity to support their needs. We have built three semiconductor fabrication facilities, commonly known as "fabs," located in Guishan District, Taoyuan City, Taiwan.

For the year ended December 31, 2019 and the nine months ended September 30, 2020, our net revenue was NT\$21,377.7 million (US\$738.4 million) and NT\$18,685.1 million (US\$645.4 million), respectively. Our net income was NT\$4,400.8 million (US\$152.0 million) for the year ended in December 31, 2019 and NT\$5,193.1 million (US\$179.4 million) for the nine months ended September 30, 2020.

Our Competitive Strengths

Our main competitive strengths include:

World's leading III-V compound foundry player with strong growth momentum

We are a leading III-V compound foundry player globally and according to Strategy Analytics, we are the world's largest GaAs foundry player. Our market share in the global GaAs foundry market increased from 58.2% in 2015 to 76.1% in 2019, according to Strategy Analytics. Our revenue increased at a CAGR of 11.9% from 2017 to 2019, comparing to a decrease in the global GaAs device market during the same period, according to Strategy Analytics, due to the decline in smartphone shipments in 2019.

We have the largest III-V compound manufacturing capacity among the world's dedicated III-V compound foundries. The monthly GaAs wafer manufacturing capacity in our fabs increased from approximately 29,000 as of December 31, 2017 to approximately 36,000 as of December 31, 2019. As of September 30, 2020, the monthly wafer manufacturing capacity reached approximately 41,000. Our unparalleled manufacturing capacity is a key competitive advantage in attracting top-tier fabless design houses and IDM customers.

We are a pure-play foundry. We manufacture III-V compound semiconductor chips based on proprietary circuit designs provided by our customers. We do not design our own chips and thus do not compete with our customers. As a result, although under the foundry business model, our customers provide their proprietary design information to us for manufacturing, such arrangement does not raise any conflict of interest to our fabless and IDM customers and they are very willing to share manufacturing know-how with us. Our pure-play foundry model creates a solid basis for our customers' trust on us and further strengthens our relationship with them.

Many IDMs that possess in-house manufacturing capacity face the risks of periodic over-capacity and under-capacity due to the fluctuation in the semiconductor industry. By outsourcing a portion of their manufacturing to us, they can alleviate such risks and save costs. We also play an active role in the transition of IDMs to fab-lite companies. For example, in 2017, we entered into a memorandum of understanding with Avago to purchase its HBT production lines and Avago agrees to outsource the production of HBT products to us. We believe that the continued trend of going fabless and fab-lite of worldwide communication and wireless IDMs and our established leading position in the foundry business position us for further market share gains in the future.

Exposure to attractive end markets with secular, long-term growth outlook

III-V compound technology realized the utilization of high frequency signal transmissions in wireless communication and other modern communication systems. Among the III-V compounds, GaAs is currently the dominant semiconductor material used in the mass production of RF communication chips. According to Strategy Analytics, revenue from the global GaAs device industry is expected to grow at a CAGR of 4.1% from 2019 to reach approximately US\$9,361.3 million in 2024.

Modern communication systems are evolving at a fast pace. Over the last decade, the prevalence of wireless applications and 4G/LTE deployment have brought the development of cutting-edge wireless broadband devices like smartphone and tablet computer with WLAN and mobile broadband capabilities. Looking ahead into the next decade, as communication networks migrate and advance from 4G/LTE to 5G, there would be further increases in demand for PAs and RF communication chips. In 5G era, communication devices such as smartphones operate in more frequency bands to accommodate multiple global standards and each frequency band will require its own GaAs chips. The continued increase of GaAs content in smartphones and other communication devices supports steady, long-term growth in the GaAs industry and our business. For the nine months ended September 30, 2020, a significant portion of our net revenue came from sales of products used in handsets, followed by sales of products for infrastructure and Wi-Fi (WLAN) applications. With the increasing use of smaller satellites and portable, mobile satellite communication devices, the demand for our GaN PAs has been driven up for the power supply of satellites with its advantage in high power density.

III-V compound is also used in sensing applications, such as VCSEL, which is commonly used in facial and gesture recognition. The adoption of 3D sensing in iPhone X in 2017 marked a new stage of the 3D sensing applications. Since then, 3D sensing has been used in consumer electronic products, which provides new growth opportunities for VCSEL. Strategy Analytics forecasts that VCSEL devices market is expected to grow at a CAGR of 22.7% from 2019 to 2024. According to the market research & strategy consulting company, Yole Développement (Yole), the VCSEL market is expected to generate revenue of \$1.1 billion in 2020 and should reach \$2.3 billion in 2024 at a 19.7% CAGR during this period 1, with mobile and consumer representing the largest sector.

Along with 5G development, Wi-Fi communication systems have also begun to adopt the Wi-Fi 6 (802.11ax) protocol. First released in 2019, the Wi-Fi 6 protocol has experienced strong increase in market penetration globally and the introduction and increasing adoption of Wi-Fi 6 is expected to boost the number of PAs needed in each router, given the need for better MIMO feature, and hence will likely drive up the global Wi-Fi PA shipment. As a leader in the global III-V compound foundry market, we are well positioned to benefit from the growth of the global GaAs market.

¹ Source: VCSELs – Market and Technology Trends 2020 report, Yole Développement, 2020.

In recent years, we have increased the exposure of our products in China. China is among one of the countries with highest penetration rates of 5G smartphones and the large size of the smartphone market in China presents a potentially huge market opportunity for III-V compound chips and our business. In addition, the Chinese government has recently imposed various measures to encourage domestic semiconductor development and production, which also provides great opportunities for us to expand our market in China.

Superior technology and manufacturing capabilities

We believe we have the most advanced and innovated technologies in the III-V compound industry. Our ability to develop new technologies independently differentiates us from some of our competitors who have limited capabilities to develop their own technologies. We have the capability to provide microwave device technologies that cover the frequency spectrum from direct current to 130 GHz, which can meet the demand of most rapidly growing markets. We participated in one of the ROC government's R&D projects, which completed the development of the first 100% domestic self-made four-inch semi-insulating silicon carbide (SiC) substrate and GaN epitaxial technology. In terms of satellite communications, we are capable to provide technologies suitable for satellite communications including millimeter wave GaAs pHEMT, GaN HEMT and PINHEMT, as well as the Ku/Ka band power amplifier and LNA used in front-end RF modules, and received the AS9100 certificate. Our comprehensive portfolio of technologies enables our customers to develop products for a wide range of applications.

We have over twenty years of experience in GaAs chip production on 6-inch wafers, compared with certain other key industry players that converted production lines from 4-inch to 6-inch in 2010s, which enables us to have the first-mover advantage in the development of applications in 3D sensing. Besides the longest history of production on 6-inch wafers in the industry, we have also demonstrated superiority in our manufacturing capacity, process reliability, product quality and operation efficiency, which enables us to manufacture and deliver products to our customers in short cycle times and help them shorten their products' time to market. We have an excellent track record of on-time delivery and high production yields.

Our industry leadership in technology and manufacturing enables us to provide superior value and outstanding service to our customers. It also enables us to charge a premium in pricing over many of our competitors, to some extent mitigating the general trend of declining average selling prices in the industry.

Diversified top-tier customers and end markets

We are the primary foundry partner for the world's leading component suppliers for diversified end market applications, including RF, microwave, mm-wave applications, LiDAR and 3D sensing, among other things. Our customers include majority of top-tier IDMs and fabless design houses. Our customers are leaders in their sectors and some of them have successfully penetrated leading smartphone and tablet OEMs in the United States, Asia and Europe and benefitted from strong growth momentum as a result. Our continual expansion in capacity and advancement in technology provide our customers an edge in bringing the latest products to market at a rate faster than their competitors.

Due to the long period of time required by our customers to qualify a supplier and the risks of trade secret leakage, the costs to qualify a potential foundry is very high. Once a foundry has become qualified and satisfied all the requirements regarding quality, delivery time and production capacity, the possibility for the customer to switch to another foundry is very low. We have been certified by numerous global IDMs and the quality of our products have been recognized by their end customers, which creates potential barriers for other foundries to enter into cooperation relationships with such IDMs.

We provide value-added services to our customers to help them resolve issues in relation to process technology and launch new products in time. We also form close partnerships with our customers to remain informed of market trends and our customers' needs. We and some of our customers jointly develop strategic initiatives for product and processing technology development. Such partnerships have enabled us to increase the share of our sales of products purchased by our major customers and have helped our smaller customers to grow faster than their peers.

With our penetration in different end markets and increases of our market share, we are able to attract new customers in diverse end markets including handsets, infrastructure, automotive, 3D sensing, optical communications and satellite communication and establish a diversified customer base. In 2004, we began to expand our customer base into China, one of the world's largest and fastest growing mobile communication markets. We expect to continue to have a larger and more diversified customer base in the coming years.

We believe that diversification of our customers and the end markets in which our products are eventually used will help us to decrease our business risk profile and reduce our revenue volatilities.

Strong management team with proven track record

We have a strong and stable management team. Our chairman of the Board, Mr. Chin-Tsai Chen, has been chairman of our Company since 2003 and has led us to achieve consistent market share gains and significant profits. Our senior management team consists of professional executives with extensive industry experience in various aspects of our operations. A majority of the members of our technology management team have overseas educational backgrounds and work experience, and many worked in leading technology companies such as Bell Labs, United Microelectronics Corporation, Macronix International Co., Ltd., Skyworks, Lockheed Martin Corp. and Huga Optotech Inc. We believe that our outstanding management team will continue to drive our success in the future.

Our Strategies

We plan to implement the following strategies:

Investing in manufacturing capacity to capture market growth and maintain leadership

Manufacturing capacity is a critical criterion when a fabless design house or an IDM selects its foundry partner. Although we already have the largest manufacturing capacity in the III-V compound foundry industry, our utilization rate is relatively high. We therefore plan to continue to expand our manufacturing capacity to meet the demand of our customers for increased mass production in the future. We currently have three fabs. We plan to expand the manufacturing capacity in Fab C by installing more facilities. In addition, we obtained the investment permit in the Southern Taiwan Science Park approved by the Ministry of Science and Technology in August 2020, which provides more possibilities for us to expand manufacturing capacity in the future. Currently, the expansion in connection with such land use rights is under preliminary planning and evaluation stage. We do not have any immediate plan to use any of the proceeds of the Offering in the expansion to the Southern Taiwan Science Park. We believe that capacity expansion is an important step in our goal to become a foundry providing one-stop solution for our customers.

Investing in technology to maintain our competitive edge and penetrate new markets

Superiority of manufacturing technology is another key criterion when a fabless design house or an IDM selects its foundry partner. Although we already have the most advanced technology portfolio in the III-V compound foundry industry, we plan to continue our R&D investment to maintain our technological edge and to meet our customers' evolving demands. For example, we have invested considerable R&D resources in InP PIN & APD applied to data com/data center in the field of optical communications. We have also continuously cooperated with related customers to develop and certify EEL technology applied in automotive LiDAR to get prepared for the next generation of self-driving car applications.

We intend to leverage our technology capabilities to enter into new markets, such as ToF, LiDAR and data center. Our goal is to diversify our product portfolio and in the long term increase our focus on non-handset business, which generally contribute to an increase in gross profit margin.

Developing new customers in existing and new markets to further diversify revenue source

We intend to further develop and expand our customer base and our end-markets to further diversify our revenue sources and reduce our exposure to revenue and profit risks. Currently, we are mainly exploring non-handset markets and high frequency applications such as satellite communications. As a long-term alternative, we also seek to explore the area of optical devices by leveraging our processing technologies.

Leveraging technology and manufacturing expertise for continuous cost and efficiency improvement

The semiconductor industry is capital-intensive and cost-sensitive. Maintaining a low cost per chip sold is crucial to our profitability and competitiveness. We believe our wafer yield is one of the highest in the III-V compound foundry industry. Building upon our achievements, we seek to continue to improve our wafer efficiencies, including die size reduction. These measures can help reduce costs and improve manufacturing yield and cycle times, thereby enhancing our competitiveness.

While we source the majority of our epi wafers externally, we produce a small portion of the epi wafers used in our manufacturing. We believe that this enables us to streamline new product development, improve quality assurance and control, shorten manufacturing cycle times and lower the risks in connection with reliance on external epi wafers.

Competent technical and manufacturing personnel are critical to our success. We will continue to hire, train and retain technical and manufacturing staff with expertise, enthusiasm and dedication.

Recent Developments

In accordance with the ROC Securities and Exchange Act and the applicable regulations, we publicly announce our unaudited preliminary sales results on a monthly basis on the Market Observation Post System, or MOPS. As of the date of this offering memorandum, we have announced unaudited preliminary sales results for each of October, November and December 2020, and the year ended December 31, 2020. These sales results have been prepared by our management and have not been audited or reviewed by our independent accountants and may be subject to change. The following tables set forth the combined operating revenue for the periods indicated:

For the Month Ended

	October 31, 2020	November 30, 2020	December 31, 2020
Unaudited combined operating revenue (NT\$ million)	2,239.99	2,277.54	2,299.75
	For the Y	Year Ended Decei	nber 31,
	2019		2020
	2019		2020
Unaudited combined operating revenue (NT\$ million)	21,350.3	7 2:	5,367.26

SELECTED FINANCIAL DATA

The following summary financial data has been derived from our audited consolidated financial statements as of and for the years ended December 31, 2017, 2018 and 2019 and unaudited condensed consolidated financial statements as of and for the nine months ended September 30, 2019 and 2020 included elsewhere in this offering memorandum, which have been prepared in accordance with the Taiwan IFRS and with "Regulations Governing the Preparation of Financial Reports by Securities Issuers" and International Accounting Standard 34, "Interim Financial Reporting" as endorsed by the FSC, respectively. The consolidated financial statements as of and for the years ended December 31, 2017, 2018 and 2019 have been audited by KPMG, Taiwan, our independent auditors, and the unaudited condensed consolidated financial statements as of and for the nine months ended September 30, 2019 and 2020 have been reviewed by KPMG, Taiwan. Our consolidated financial statements are presented in conformity with the Taiwan IFRS. You should read the following selected financial information together with our financial statements included elsewhere in this offering memorandum. Neither these data nor the format in which they are presented should be viewed as comparable to information prepared in accordance with IFRS or generally accepted accounting principles elsewhere. See "Summary of Certain Material Differences between Taiwan IFRS and IFRS."

Consolidated Statements of Comprehensive Income Data

	F	or the year end	led December 3	1,	For the nin	e months ended	September
	2017	2018	20	19	2019	20	20
	NT\$	NT\$	NT\$	US\$	NT\$	NT\$	US\$
	(audited)	(audited)	(audited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)
			(in thousands,	except per shar	e information)		
Operating revenue	17,086,355	17,310,716	21,377,724	738,436	14,474,088	18,685,125	645,427
Operating costs	(10,758,385)	(11,895,545)	(13,216,850)	(456,541)	(9,365,453)	(10,515,830)	(363,241)
Gross profit from operating	6,327,970	5,415,171	8,160,874	281,895	5,108,635	8,169,295	282,186
Operating expenses							
Selling expenses	(197,524)	(238,957)	(339,221)	(11,717)	(243,572)	(245,594)	(8,483)
Administrative expenses	(868,302)	(997,791)	(1,153,012)	(39,828)	(801,689)	(966,424)	(33,383)
Research and development expenses	(692,809)	(973,921)	(1,107,918)	(38,270)	(831,268)	(839,534)	(29,000)
Reversal of (losses on) expected		0.40	(2.171)	(75)	(2.240)	((0)	(2)
credit impairment		840	(2,171)	(75)	(2,340)	(68)	(2)
Total operating expenses	(1,758,635)	(2,209,829)	(2,602,322)	(89,890)	(1,878,869)	(2,051,620)	(70,868)
Net operating income	4,569,335	3,205,342	5,558,552	192,005	3,229,766	6,117,675	211,318
Non-operating income and expenses	(40,656)	529,281	(165,124)	(5,704)	(55,223)	267,693	9,247
Profit before tax	4,528,679	3,734,623	5,393,428	186,301	3,174,543	6,385,368	220,565
Tax expense	(813,384)	(668,561)	(992,667)	(34,289)	(613,430)	(1,192,260)	(41,183)
Profit	3,715,295	3,066,062	4,400,761	152,012	2,561,113	5,193,108	179,382
Other comprehensive income	743,099	(365,577)	1,970,089	68,052	2,505,457	12,888	445
Total comprehensive income	4,458,394	2,700,485	6,370,850	220,064	5,066,570	5,205,996	179,827
Profit (loss) attributable to:							
Profit attributable to owners of							
parent	3,764,200	3,124,454	4,474,399	154,556	2,612,583	5,233,206	180,767
Profit (losses) attributable to non-	(40.00%)	(50.202)	(72 (20)	(2.544)	(51, 470)	(40,000)	(1.205)
controlling interests	(48,905)	(58,392)	(73,638)	(2,544)	(51,470)	(40,098)	(1,385)
Profit	3,715,295	3,066,062	4,400,761	152,012	2,561,113	5,193,108	179,382
Earnings per Common Share (expressed in New Taiwan dollars):							
Basic earnings per share	9.34	7.39	10.59	0.37	6.18	12.38	0.43
Diluted earnings per share	9.30	7.35	10.53	0.36	6.16	12.29	0.42

Consolidated Balance Sheet Data

l		As of Decen	nber 31,		As	of September 30,	(1)
_	2017	2018	2019		2019	202	20
_	NT\$	NT\$	NT\$	US\$	NT\$	NT\$	US\$
_	(audited)	(audited)	(audited)	(unaudited)	(unaudited)	(unaudited)	(unaudited)
Cash and cash			(in thousands)			
equivalents	7,849,123	5,462,173	5,926,473	204,714	4,993,252	6,708,999	231,744

Total current							
assets	16,787,114	11,334,529	13,650,150	471,508	12,591,627	16,054,972	554,576
Total non-current							
assets	20,240,338	24,125,074	28,475,952	983,625	27,988,438	33,645,633	1,162,198
Total assets	37,027,452	35,459,603	42,126,102	1,455,133	40,580,065	49,700,605	1,716,774
Total current							
liabilities	5,077,465	3,828,383	5,975,700	206,415	4,970,693	5,748,548	198,568
Total non-current							
liabilities	6,145,242	6,026,835	6,310,870	217,992	7,052,820	11,014,351	380,461
Total liabilities	11,222,707	9,855,218	12,286,570	424,407	12,023,513	16,762,899	579,029
Total equity	25,804,745	25,604,385	29,839,532	1,030,726	28,556,552	32,937,706	1,137,745
Total liabilities							
and equity	37,027,452	35,459,603	42,126,102	1,455,133	40,580,065	49,700,605	1,716,774

Consolidated Statements of Cash Flow Data

	F	or the year ended	December 31,		For the nine m	onths ended Sept	ember 30, ⁽¹⁾
-	2017	2018	20	19	2019	202	0
-	NT\$	NT\$	NT\$	US\$	NT\$	NT\$	US\$
_	(audited)	(audited)	(audited)	(unaudited) (in thousands)	(unaudited)	(unaudited)	(unaudited)
Net cash from				,			
operating activities	5,894,027	5,479,518	8,084,359	279,252	5,026,915	5,783,865	199,788
Net cash used in							
investing activities	(5,146,654)	(4,377,367)	(5,285,857)	(182,586)	(3,999,551)	(7,349,318)	(253,862)
Net cash from (used in)							
financing activities	4,754,364	(3,506,022)	(2,282,543)	(78,844)	(1,488,665)	2,397,741	82,823
Effect of exchange rate changes on cash and cash equivalents	(40,757)	16,921	(51,659)	(1,784)	(7,620)	(49,762)	(1,719)
Net increase (decrease) in cash and cash equivalents	5,460,980	(2,386,950)	464,300	16,038	(468,921)	782,526	27,030
Cash and cash equivalents at beginning of period	2,388,143	7,849,123	5,462,173	188,676	5,462,173	5,926,473	204,714
Cash and cash equivalents at end of period	7,849,123	5,462,173	5,926,473	204,714	4,993,252	6,708,999	231,744

⁽¹⁾ The review report as of September 30, 2019 and 2020 includes the paragraphs of Basis for Qualified Conclusions stating that the other equity accounted investments of the Group's investments accounted for using the equity method and the shares of gains (losses) of associates and joint ventures accounted for using the equity method for the nine months ended September 30, 2019 and 2020, were recognized solely in the financial statements prepared by these investee companies, but not reviewed by independent auditors.

Other Selected Financial Data

_	Year Ended December 31,			Nine Months End	ed September 30,
_	2017	2018	2019	2019	2020
-				(unaudited)	(unaudited)
Gross margin ⁽¹⁾	37.0%	31.3%	38.2%	35.3%	43.7%
Operating margin ⁽²⁾	26.7%	18.5%	26.0%	22.3%	32.7%
Net margin ⁽³⁾	21.7%	17.7%	20.6%	17.7%	27.8%

⁽¹⁾ Gross margin is calculated by dividing gross profit from operating by operating revenue, multiplied by 100%.

⁽²⁾ Operating margin is calculated by dividing net operating income by operating revenue, multiplied by 100%.

⁽³⁾ Net margin is calculated by dividing profit by operating revenue, multiplied by 100%.

THE OFFERING

The following is only a summary and is qualified in its entirety by reference to "Description of the Bonds" and the more detailed information contained elsewhere in this offering memorandum. Capitalized terms used in this summary and not defined have the respective meanings given to them in "Description of the Bonds."

Issuer	WIN Semiconductors Corp.
The Offering	US\$500,000,000 aggregate principal amount of US dollar denominated currency-linked zero coupon convertible bonds due 2026, being offered outside the United States in reliance on Regulation S.
Interest	The Bonds will not bear any interest.
Closing Date	January 14, 2021
Maturity Date and Final Redemption	Unless previously redeemed, repurchased and canceled or converted, the Bonds will mature, and we will redeem the Bonds, on January 14, 2026 at the Settlement Equivalent of 95.11% of the outstanding principal amount thereof.
Issue Price	100%
Ranking	The Bonds will be our direct, unconditional, unsecured and unsubordinated obligations (but subject to a negative pledge, as described in "Negative Pledge" below), and will rank <i>pari passu</i> without any preference or priority among themselves and with all of our other present and future direct, unconditional, unsubordinated and unsecured obligations.
Conversion	Subject to certain conditions, each holder of the Bonds (a "Holder") will have the right during the Conversion Period (as defined herein) to convert its Bonds (or any portion thereof being US\$200,000 in principal amount or integral multiples thereof) into Common Shares, provided, however, that the Conversion Right during any Closed Period (as defined herein) shall be suspended and the Conversion Period shall not include any such Closed Period.
	See "Description of the Bonds — Conversion" and "Risk Factors — Risks Related to Our Shares and the Bonds — There are limitations on the Bondholders' ability to exercise Conversion Rights."
	Subject to changes to ROC laws and regulations, we shall as soon as practicable but in no event more than five Trading Days (as defined herein) from the Conversion Date (as defined herein) issue and deliver Common Shares in book-entry form to the local agent appointed by the converting Holders for the purpose of trading the Common Shares on the TPEx.
Conversion Price	The conversion price will initially be NT\$497.00 per share determined on the basis of the Fixed Exchange Rate applicable on conversion of Bonds of NT\$27.9840 = US\$1.00. The conversion price will be subject to adjustments for, among other things, subdivision or consolidation of shares, right issues, distributions, stock dividends, and other dilutive events. See "Description of the Bonds."
Early Redemption Amount	The Early Redemption Amount for each US\$200,000 of the Bonds is determined so that it represents for the Holder a yield of -1.00% per

annum, calculated on a semi-annual basis.

Redemption at the Option of the Issuer.....

At any time after January 14, 2024 and prior to the Maturity Date, the Bonds may be redeemed at the option of us, in whole or in part, on not less than 30 nor more than 60 days' notice to the Holders (which notice shall be irrevocable) and to the Trustee and the Agents, at the Settlement Equivalent of the applicable Early Redemption Amount, provided that: (1) the Closing Price (converted into U.S. Dollars at the Prevailing Rate) of the Common Shares for 20 out of the 30 consecutive Trading Days immediately prior to the date upon which notice of such redemption was given, is at least 130% of the quotient of the Early Redemption Amount dividend by the Conversion Ratio (as defined herein) then in effect; and (2) the applicable Redemption Date does not fall within a Closed Period.

Notwithstanding the foregoing, we may redeem the Bonds, in whole but not in part, at any time, on not less than 30 nor more than 60 days' notice, at the Settlement Equivalent of the applicable Early Redemption Amount if more than 90% in principal amount of the Bonds originally issued has been redeemed, repurchased and canceled or converted; provided that the applicable Redemption Date does not fall within a Closed Period.

Additional Amounts.....

Payment of principal of and other amounts on the Bonds will be made without withholding or deduction for or on account of taxes of the ROC or such other jurisdiction in which we are then organized or resident for tax purposes or from which any payment on the Bonds is made (or any political subdivision or authority or agency thereof), unless such withholding or deduction is required by law or by regulation or governmental policy having the force of law. In the event that any such withholding or deduction is so required, we will, subject to certain exceptions, pay such Additional Amounts (as defined herein) on the Bonds as will result in receipt by the Holder of each Bond of such amounts as would have been received by such Holder had no such withholding or deduction been required.

Tax Redemption.....

If, as a result of certain changes relating to the tax laws in the ROC or such other jurisdiction in which we are then organized or resident for tax purposes (or any political subdivision or authority or agency thereof) on or after the Closing Date, we become obligated to pay Additional Amounts, the Bonds may be redeemed at the option of us, in whole but not in part, at the Settlement Equivalent of the applicable Early Redemption Amount; provided that such right cannot be exercised earlier than 45 days prior to the first date on which we would be obligated to make an Additional Amounts payment with respect to all or substantially all of the outstanding Bonds were a payment then due. Notwithstanding the foregoing, if the outstanding principal amount of the Bonds at the time when such redemption notice is given is greater than 10% of the aggregate principal amount of the Bonds as of the Closing Date, Holders may elect not to have their Bonds redeemed but with no entitlement to any Additional Amounts or reimbursement of additional tax. See "Description of the Bonds — Redemption of the Bonds — Redemption for Taxation Reasons."

Repurchase at the Option of the Holder.....

Unless the Bonds have been previously redeemed, repurchased and canceled or converted, each Holder shall have the right, at such Holder's option, to require us to repurchase, in whole or in part (being US\$200,000 in principal amount or an integral multiple thereof), such Holder's Bonds, on January 14, 2024 at the Settlement Equivalent of 97.04% of the principal amount in US dollars with respect to such Holder's Bonds to be repurchased.

Repurchase in the Event of Change of Control.....

Unless the Bonds have been previously redeemed, repurchased and canceled or converted, each Holder shall have the right, at such Holder's option, to require us to repurchase, in whole or in part (being US\$200,000 in principal amount or integral multiples thereof), such Holder's Bonds at the Settlement Equivalent of the applicable Early Redemption Amount upon the occurrence of a Change of Control, as defined herein. See "Description of the Bonds — Repurchase of the Bonds — Repurchase in the Event of Change of Control."

Repurchase in the Event of Delisting...

Unless the Bonds have been previously redeemed, repurchased and canceled or converted, in the event that the Common Shares cease to be listed or admitted to trading on the TPEx or that trading in the Common Shares is suspended for 30 consecutive Trading Days, each Holder shall have the right, at such Holder's option, to require us to repurchase, in whole or in part (being US\$200,000 in principal amount or an integral multiple thereof), such Holder's Bonds on the date set by the Issuer for such repurchase, which shall not be less than 30 nor more than 60 days following the date on which the Trustee sends to each Holder a notice regarding such delisting at the Settlement Equivalent of the applicable Early Redemption Amount with respect to such Holder's Bonds to be repurchased. See "Description of the Bonds — Repurchase of the Bonds — Repurchase in the Event of Delisting."

Negative Pledge

Subject to certain exceptions, we will not, and will ensure that none of our Subsidiaries (as defined herein) will, create or permit to subsist any Lien (as defined herein) on any of its or, as the case may be, such Subsidiary's, property, assets or revenues, present or future, to secure for the benefit of the holders of any International Investment Securities (as defined herein) any sum owing in respect thereof or any guarantee or indemnity thereof without making effective provision to secure the Bonds (a) equally and ratably with such International Investment Securities with a similar Lien or (b) with such other security as shall be approved by Holders holding not less than 50% of the principal amount of the outstanding Bonds. See "Description of the Bonds — Certain Covenants — Negative Pledge."

Form and Denomination

The Bonds will be issuable only in book-entry form and only in denominations of US\$200,000 in principal amount or any integral multiples thereof. Bonds will be represented by the Global Bond. On the closing date of the Offering, we will deliver the Global Bond to a common depositary (the "Common Depositary") for Euroclear and Clearstream. If (i) at any time, the Common Depositary advises the Company in writing that it is unwilling or unable to continue as a depository for the Global Bond and a successor depository is not appointed by the Company within 90 days, (ii) either Euroclear or Clearstream or any alternative clearing system on behalf of which the Bonds evidenced by the Global Bond may be held is closed for business for a continuous period of 14 days (other than by reason of holidays, statutory or otherwise) or announces an intention permanently to cease business or in fact does so, or (iii) an event of default has occurred and is continuing with respect to the Bonds and the Trustee notifies the Company in writing that any of the Bonds have become immediately due and payable pursuant to the Indenture, the Company shall issue individual certificated bonds in registered form in exchange for the Global Bond in any authorized denominations and in an aggregate principal amount equal to the principal amount of the Global Bond.

The Bonds will not be issuable in a bearer form.

Use of Proceeds	The net proceeds to be received by us from this offering are expected to be US\$497 million, after deducting underwriting commissions and related expenses. We intend to use the net proceeds of this offering for procurement of raw materials and capital expenditure in foreign currencies. See "Use of Proceeds."
Listing	For so long as the Bonds are listed on the SGX-ST and the rules of the SGX-ST so require, the Bonds will be traded on the SGX-ST in a minimum board lot size of US\$200,000.
	Application will be made for the listing and quotation of the Bonds on the SGX-ST. The SGX-ST assumes no responsibility for the correctness of any statements made, opinions expressed or reports contained in this offering memorandum. Approval in-principle for the listing and quotation of the Bonds is not to be taken as an indication of the merits of this Offering, the Company, the Group, its subsidiaries, or any of their associated companies or the Bonds.
	For so long as the Bonds are listed on the SGX-ST and the rules of the SGX-ST so require, we will appoint and maintain a paying agent in Singapore, where the Bonds may be presented or surrendered for payment or redemption in the event that the relevant Global Bonds is exchanged for individual definitive Bonds. In addition, in the event that any of the Global Bonds is exchanged for individual definitive Bonds, an announcement of such exchange will be made by us or on our behalf through the SGX-ST. Such announcement will include all material information with respect to the delivery of the individual definitive Bonds, including details of the paying agent in Singapore.
Lock-Ups	We have agreed that for a period of 90 days after the Closing Date, we will not, without the Initial Purchaser's prior written consent, offer, pledge, sell, contract to sell or otherwise dispose of any Shares or any securities convertible into or exercisable or exchangeable for Shares. See "Plan of Distribution."
Trading Market for the Common Shares	The only trading market for the Common Shares is the TPEx. The Common Shares have been listed on the TPEx under the trading code "3105".
Governing Law	The Indenture and the Bonds will be governed by, and construed in accordance with, the laws of the State of New York.
Trustee	The Bank of New York Mellon, London Branch
Paying Agent and Conversion Agent	The Bank of New York Mellon, London Branch
Registrar and Transfer Agent	The Bank of New York Mellon SA/NV, Luxembourg Branch
Transfer Restrictions	None of the Bonds or the Shares issuable upon conversion of the Bonds has been registered under the Securities Act, and those securities are subject to restrictions on transfer. See "Transfer Restrictions."
Delivery of the Bonds	Delivery of the Bonds, against payment in same-day funds, will be on the Closing Date.

RISK FACTORS

You should carefully evaluate the risks described below and all the other information set forth in this offering memorandum before deciding to invest in the Bonds. You should pay particular attention to the fact that we are an ROC company and are subject to a legal and regulatory regime which in some respects may be different from that which prevails in other countries. This offering memorandum also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this offering memorandum. See "Forward-looking Statements." Moreover, the risks described herein are not exhaustive, as there may be additional risks other than those described in the offering memorandum, and there may be additional risks that are primarily applicable for only certain of our businesses.

Risks Relating to Our Industry and Business

Our results of operations may vary significantly due to the cyclical nature of the semiconductor industry and our end markets.

The semiconductor industry and our end markets have been cyclical, seasonal and subject to significant downturns. Further, the industry can have limited visibility into customers' forecasts and inventory levels. In past years, the industry has experienced periods marked by market weaknesses that created lower order demand, production overcapacity, high inventory levels and accelerated declines in average selling prices for our products. These factors negatively affected our financial condition and results of operations during these periods and may negatively affect our financial condition and results of operations in the future.

Our results of operations also may be subject to significant quarterly and annual fluctuations. These fluctuations are due to a number of factors, many of which are beyond our control, including, among others: (i) changes in end-user demand for the products sold by our customers that contain chips manufactured by us; (ii) the effects of competitive pricing pressures, including decreases in average selling prices of our products; (iii) industry production capacity levels and fluctuations in industry manufacturing yields; (iv) levels of inventory in our end markets; (v) availability and cost of products from our suppliers; (vi) the gain or loss of significant customers; (vii) our ability to develop, introduce and market new products and technologies on a timely basis; (viii) new product and technology introductions by competitors; (ix) changes in the mix of products produced and sold; (x) market acceptance of our products by our customers; and (xi) intellectual property disputes.

As a result, we may experience substantial period-to-period fluctuations in future operating results. Investors should not rely on our results of operations from any previous period as an indicator of what results may be for any future period. Failure of our operating results to meet the expectations of analysts or investors could materially and adversely affect the price of the Bonds.

Decreases in demand and average selling prices for products that contain III-V compound semiconductors may adversely affect demand for our products and may result in a decrease in our revenue and earnings.

A vast majority of our revenue is derived from customers who use our products to manufacture applications to be used in end markets such as smartphones, tablet computer, base stations, satellites, automotive electronics, and digital consumer electronics. Any deterioration in or a slowdown in the growth of such end markets resulting in a substantial decrease in the demand for overall global III-V compound semiconductor foundry services, including our products and services, could adversely affect our revenue. In addition, as our products are not sold directly to manufacturers in end markets, but to our customers who manufacture their own products to be used in the end use applications, if manufacturers in the end markets do not use designs that containing our customers' products, the demand for our customers' markets will decrease, which will adversely affect the demand for our products and services.

Further, a significant portion of our operating costs is fixed. In general, these costs do not decline when customer demand or our capacity utilization rates drop, and thus declines in customer demand, among other factors, may significantly decrease our margins. Conversely, as product demand rises and factory utilization increases, the fixed costs are spread over increased output, which can improve our margins. In addition, the historical and current trend of declining average selling prices of end use applications places downward pressure on the prices of the components that go into such applications. If the average selling prices of end use applications continues decreasing, the pricing pressure on components produced by us may lead to a reduction of our revenue, margin and earnings.

We depend on a small number of customers; a loss of a significant customer or a decrease in purchases by one of these customers could materially and adversely affect our revenues and our ability to forecast revenues.

We receive a significant portion of our revenues from a few significant customers. Our three largest customers accounted for, on a customer group basis, approximately 60.4%, 52.9%, 42.6% and 41.3% of our total net revenue for the years ended December 31, 2017, 2018 and 2019 and nine months ended September 30, 2020, respectively. If we were to lose any of our major customers, or if sales to these customers were to decrease, our financial condition and results of operations could be materially and adversely affected. Further, if a customer encounters financial difficulties, the customer's ability to make timely payments to us could be impaired.

The effects of the global COVID-19 pandemic are adversely affecting our business operations.

The ongoing global COVID-19 pandemic – including both the resulting public health crisis as well as the measures being taken by governments, businesses, and individuals in an effort to limit COVID-19's spread – has adversely affected, and may continue to adversely affect, our business operations. The impacts of the COVID-19 pandemic on our business operations and workforce, and the duration of such impacts, are uncertain, constantly evolving, and difficult to quantify, but have thus far included or may include: (i) interruption of the operations of some of our customers and suppliers; (ii) increases of our inventory for raw materials to adapt to the potential supply shortage or delivery delays of raw materials; (iii) large fluctuations in the demand for our products; (iv) potential production delays for our products due to forced factory or office closures or partial operation; (v) disruptions to global transportation networks resulting in delays of delivery and disruption of business travels; and (vi) the deterioration of worldwide credit and financial markets, which may limit the ability of our customers to make timely payment.

These effects, alone or taken together, could have a material adverse effect on our business, results of operations, customer and supplier relations, employee relations, cash flows, and financial condition. The resumption of normal business operations after any such interruptions may be delayed or constrained by lingering effects of COVID-19 on our customers, suppliers, and other third-party service providers. There can be no assurance that any decrease in sales resulting from COVID-19 will be offset by increased sales in subsequent periods.

The degree to which COVID-19 impacts us will depend on future developments that are highly uncertain and cannot be predicted, including, but not limited to, the duration and spread of the pandemic, its severity, the actions to contain COVID-19 or treat its impact, and how quickly and to what extent normal economic and operating conditions resume. Even after the COVID-19 pandemic has subsided as a public health matter, we may experience material adverse impacts to our business as a result of its adverse impact on the global economy.

If we fail to fully utilize our manufacturing capacity, our operating results may be adversely affected.

We underutilized our manufacturing capacity during periods of slow orders, which may have an adverse impact on our gross margin. Because large portions of our manufacturing costs are relatively fixed, our manufacturing volumes are critical to our operating results. If we fail to achieve and maintain an acceptable level of manufacturing volumes or experience material product shipment delays, our results of operations could be adversely affected. We base our expense levels in part on our expectations of future orders and these expense levels are predominantly fixed. If we receive fewer customer orders than expected or if our

customers delay or cancel orders, we may not be able to reduce our manufacturing costs. If we are unable to improve utilization levels and correctly manage capacity, the increased expense levels relative to revenue will have an adverse effect on our business, financial condition and results of operations.

We face intense competition, which could result in a decrease in our products' prices and sales.

The markets for our products are intensely competitive and are characterized by rapid technological change. We compete with semiconductor and IC manufacturers of all sizes worldwide, some of whom may have significantly greater financial, technical, manufacturing and market resources than we do. We currently face significant competition in our markets and expect that intense price and product competition will continue. This competition has resulted in, and is expected to continue to result in, declining average selling prices for our products and increased challenges in maintaining or increasing market share. We believe that the principal competitive factors for suppliers in our markets include, among others: (i) manufacturing capacity; (ii) time-to-market; (iii) timely new product innovation; (iv) product quality, reliability and performance; (v) product price; (vi) product features; (vii) compliance with industry standards; (viii) strategic relationships with leading fabless design houses and IDM customers; (ix) ability to hire and retain competent technical and manufacturing personnel and (x) access to and protection of intellectual property.

Certain of our competitors may be able to adapt more quickly than we can to new or emerging technologies and changes in customer requirements or may be able to devote greater resources to the development, promotion and sale of their products than we can. Certain of our competitors may have backing from other major semiconductor foundries or IDMs, so that it has easy access to inexpensive capital, manufacturing capacity and technology know-how. Current and potential competitors have established, or may in the future establish, financial or strategic relationships among themselves or with customers, distributors or other third parties with whom we have or may in the future have relationships. If our competitors are able to strengthen existing, or establish new, relationships with these third parties, they may rapidly acquire market share at our expense. We cannot assure you that we will be able to compete successfully against current and potential competitors. Increased competition could result in pricing pressures, decreased gross margins and loss of market share and may materially and adversely affect our financial condition and results of operations.

A reversal or slowdown in the outsourcing trend for semiconductor manufacturing services could adversely affect our growth prospects and profitability.

IDMs have increasingly outsourced their manufacturing to foundry service providers like us in order to reduce costs, hedge capacity risk and meet time-to-market requirements. The availability of advanced foundry services has also enabled the growth fabless semiconductor companies that focus exclusively on design and marketing and outsource their manufacturing to foundries. Foundries also play an active role in the transition of IDMs to fab-lite companies. For example, we entered into a memorandum of understanding with Avago to purchase its HBT production lines in 2017 and Avago agrees to outsource the production of HBT products to us. However, we cannot assure you that IDMs and fabless design houses will continue to outsource their manufacturing to foundries like us. Furthermore, during an economic downturn, these IDMs typically rely more on their own manufacturing capabilities, therefore decreasing their need to outsource. A reversal of, or a slowdown in, this outsourcing trend could result in reduced demand for our services and materially and adversely affect our growth prospects and profitability.

We need to keep pace with rapid product and process development, technological changes, as well as product cost reductions to be competitive.

The markets for our products are characterized by rapid changes in both product and processing technologies based on the continuous demand for product enhancements, higher levels of integration, decreased size and reduced power consumption. Because the continuous evolution of these technologies and frequent introduction of new products and enhancements have generally resulted in short product life cycles for our products, we believe that our future success will depend, in part, upon our ability to continue to improve on the efficiency of our products and process technologies and rapidly develop new products and process technologies.

The successful development of our products is highly complex and depends on numerous factors, including our ability: (i) to anticipate customer and market requirements and changes in technology and industry standards; (ii) to successfully carry out product and process development; (iii) to differentiate our products and pricing from those of our competitors; (iv) to protect, develop or otherwise obtain adequate intellectual property for our new products; (v) to achieve acceptable manufacturing yields; and (vi) to manage the cost of raw materials and manufacturing services.

If a competing technology emerges that is, or is perceived to be, superior to our existing technology and we are unable to develop and/or implement the new technology successfully or to develop and implement a competitive and economically acceptable alternative technology, our financial condition and results of operations could be materially and adversely affected. This implementation may require us to modify the manufacturing process for our products, design new products to more stringent standards, and redesign some existing products, which may prove difficult for us and result in sub-optimal manufacturing yields, delays in product deliveries and increased expenses. We will need to make substantial investments to develop these enhancements and technologies, and we cannot assure you that we will have sufficient funding for these investments or that these enhancements and technologies will be successful.

We may not be able to manage our growth successfully.

There are significant risks involved in our expansion plans, including anticipating the timing and the magnitude of the expansion plans correctly and being able to achieve expansion targets on a timely basis. In the event the timing of our expansion does not match market demand, our business strategy may need to be revised, which may materially and adversely affect our growth and future prospects. Difficulties in managing our future growth could disrupt our business operations, increase our costs and delay achievement of our business goals, making it more difficult for us to maintain profitability. Growth and expansion of our business could significantly strain our capital resources as well as the time and abilities of our management personnel. Our ability to manage growth effectively will require continued improvement of our operational, financial and management systems and the successful training, motivation and management of our employees. If we are unable to manage growth successfully, our business, financial condition and results of operation may be materially and adversely impacted.

Lengthy product and sales cycles associated with many of our products may result in significant expenditures before generating any revenues related to those products.

After our product has been developed, tested and manufactured, our customers may need three to six months or longer to integrate, test and evaluate our product and an additional three to six months or more to begin volume production of their products that incorporates our product. This lengthy cycle time, together with the short life cycles of our customers' own products, increases the possibility that a customer may decide to cancel or change product plans, which could reduce or eliminate our sales to that customer. As a result of this lengthy sales cycle, we may incur significant R&D expenses, and selling and administrative expenses, before we generate the related revenues for these products. Furthermore, we may never generate the anticipated revenues from a product after incurring such expenses if our customers cancel or change its product plans.

Sources for certain raw materials and equipment are limited, which could result in delays or reductions in product shipments.

As a provider of pure-play III-V compound foundry services, we source most of the starting GaAs epi wafers and other raw materials, such as photolithography masks, from third-party suppliers. Epi wafers and other raw materials are available from a limited number of sources. Although we believe that our supplies of raw materials are adequate, we may, from time to time, experience shortages for various materials due to interruption of supply or increased demand from the GaAs industry or other industries. To the extent that we are unable to obtain these raw materials in the required quantities and qualities, we could experience delays or reductions in product shipments, which could materially and adversely affect our financial condition and results of operations.

We depend on a limited number of vendors to supply the equipment used in our manufacturing processes. When demand for semiconductor manufacturing equipment is high, lead times for delivery of such equipment can be substantial. We cannot assure you that we would not lose potential sales if required manufacturing equipment is unavailable and, as a result, we are unable to maintain or increase our production levels. A delay for any reason in increasing capacity would limit our ability to increase sales volumes, which could harm our relationships with customers.

We face risks from failures in our manufacturing processes and the processes of our vendors.

The fabrication of ICs, particularly those made of GaAs, is a highly complex and precise process. Our ICs are primarily manufactured on wafers made of GaAs requiring multiple process steps. It requires production in a highly controlled, clean environment. Minor impurities, contamination of the clean room environment, errors in any step of the fabrication process, defects in the masks used to print circuits on a wafer, defects in equipment or materials, downtime on equipment, human error, interruption in electrical supply or a number of other factors can cause a substantial interruption in our manufacturing processes. Because our operating results are highly dependent upon our ability to produce ICs at acceptable manufacturing yields, these factors could have a material and adverse effect on our business.

Additionally, our operations may be materially and adversely affected by lengthy or recurring disruptions at our production facility. These disruptions may include electrical power outages, work stoppages, fire, earthquakes, flooding, international conflicts, war, acts of terrorism, or other natural or man-made disasters as well as equipment maintenance, repairs, and/or upgrades. For example, on August 15, 2017, Taiwan suffered a massive electrical power outage, which left millions of homes, offices and factories without power. Although the electrical power outage did not have a material impact on our operations, future electric power blackout may disrupt our business operations and materially and adversely affect our results of operation. Disruptions of our manufacturing operations could cause significant delays in our shipments. We may seek alternative capacity to fill customers' orders if such disruptions occur. However, many of our customers require a new manufacturing source to be qualified before they will accept products from such source. This qualification process may be expensive and time consuming. In the event of such delays, we cannot assure you that the required alternative capacity, particularly wafer production capacity, would be available on a timely basis or at all. Even if alternative manufacturing capacity or assembly and test capacity is available, we may not be able to obtain it on favourable terms, which could result in higher costs and/or a loss of customers. We may be unable to obtain sufficient manufacturing capacity to meet demand, either at our own facilities or through external manufacturing. In the event we are unable to supply our customers with products previously assembled by ourselves on a timely basis, such customers may seek alternative suppliers.

Furthermore, we depend on certain vendors for raw materials, equipment and services. We maintain stringent policies regarding qualification of these vendors. However, if these vendors' processes vary in reliability or quality, they could negatively affect our products, and thereby, our results of operations.

We may encounter difficulties in achieving expected strategic objectives and other benefits of any investment, strategic alliance or acquisition.

On an ongoing basis, we review investment, strategic alliance and acquisition prospects that would complement our product offerings, augment our market coverage or enhance our technological capabilities. In addition, we may also make investment in other companies for financial gains.

Our ability to complete acquisitions or alliances is dependent upon, and may be limited to, the availability of suitable candidates and capital. In addition, acquisitions and alliances involve risks that could materially and adversely affect our financial condition and results of operations, including the management time that may be diverted from operations in order to pursue and complete such transactions and difficulties in integrating and managing the additional operations and personnel of acquired companies. Furthermore, we may not be able to successfully make such strategic acquisitions and investments or to establish strategic alliances with third parties that will prove to be effective or beneficial for our business. In addition, changes in government policies, both domestically and internationally, that are not favourable to the development of the industry we

are involved in, may also have a material adverse effect on the success of our strategic acquisitions, investments and alliances.

We cannot assure you that we will be able to obtain the capital necessary to consummate acquisitions or alliances on satisfactory terms, if at all. Further, any businesses that we acquire will likely have their own capital needs, which may be significant, and which we could be called upon to satisfy independent of the acquisition price. Future acquisitions or alliances could result in the incurrence of debt, costs and contingent liabilities, all of which could materially and adversely affect our financial condition and results of operations. Any debt or guaranty could subject us to substantial and burdensome covenants.

The growth that may result from future acquisitions or alliances may place significant strains on our resources, systems and management. If we are unable to effectively manage such growth by implementing efficient systems, expanding our infrastructure and hiring, training and managing employees, our financial condition and results of operations could be materially and adversely affected. In addition, if we issue additional shares of our Common Stock in order to acquire another business, our stockholders' interest in us, or the combined company, could be materially diluted. Further, in periods following an acquisition, we will be required to evaluate goodwill and acquisition-related intangible assets for impairment. When such assets are found to be impaired, they will be written down to estimated fair value, with a charge against earnings.

To secure our current market position and explore new competitive advantage to sustain the future growth momentum, we acquired 28.63% of the equity interests in Chainwin Cayman (formerly known as Merit Biotech (Cayman Islands) Co., Ltd.) at a consideration of NT\$195.54 million in November 2015. Since then, we have made a series of investment in Chainwin Cayman through subscription of new shares or acquisition of the existing shares. As of the date of this offering memorandum, we have made a total investment of NT\$8.1 billion in Chainwin Cayman and held 81.69% of the equity interests in Chainwin Cayman. Chainwin Cayman and its subsidiaries mainly focus on developing hog farming technology and trading in China. There is no assurance that the benefit of the investment in Chainwin Cayman or the hog faming technology will be fully realized as expected or at all.

If our products fail to perform or meet customer requirements or product qualifications, we could incur significant additional costs.

The fabrication of ICs from substrate materials and the modules containing these components is a highly complex and precise process. Our customers have their specified quality, performance and reliability standards that we must meet. If we fail to meet these standards required by our customers, we may be required to refund, exchange or rework the products. If any failure, product defect or quality issue occur, our results of operations may be materially and adversely affected.

The variability of our manufacturing yields may affect our gross margins.

Our manufacturing yields vary over time and among products depending on the complexity of a particular IC's design and our experience in manufacturing that type of IC. Minor deviations or disturbances in the manufacturing process can cause substantial manufacturing yield loss, and in some cases, cause production to be suspended and impact our ability to meet customer demand on a timely basis. We may experience difficulties in achieving planned yields, which may materially and adversely affect our gross margins.

Many of our manufacturing costs are fixed and average selling prices for our products tend to decline over time. Therefore, it is critical for us to increase the number of shippable ICs per wafer and increase the production volume of wafers in order to maintain or improve our results of operations. Yield decreases can result in substantially higher unit costs, which could materially and adversely affect our financial condition and results of operations. There is no assurance that we will be able to maintain acceptable manufacturing yields, particularly during the early production of new products or introduction of new process technologies. If any new issues regarding manufacturing yields were to arise or any existing issues were to continue, our financial condition and results of operations could be materially and adversely affected.

Uncertainties involving the ordering and shipment of our products could adversely affect our business.

Although we have established long-term supply relationships with our customers and distributors, our sales are typically made pursuant to purchase orders which are not binding. Although our customers had never cancelled and rarely deferred any purchase orders in the past, we cannot assure you that our customers will not cancel or defer purchase orders in the future. We may purchase and manufacture inventory based on estimates of customer demand for our products, which is difficult to predict. As a result, if our customers cancel or significantly defer purchase orders in the future, it could result in us holding excess or obsolete inventory, which could result in inventory write-downs and, in turn, could have a material adverse effect on our financial condition. In addition, our customers may change their own inventory practices at any time for any reason. As a result, we may experience periods of fluctuation in the amount of orders received.

On the other hand, our customers may require rapid increases in production on short notice, which could result in damaged customer relationships, increased liabilities, or harm to our reputation if we are unable to meet such increases in demand. Some of our customers have implemented vendor-managed inventory, consignment, or similar inventory programs that may result in an increase in the time between manufacture of, and payment for, our products.

In addition, a majority of payments for our product shipments were made approximately 30 to 40 days. Our financial condition and results of operations may be materially and adversely affected by the late payments from customers. If a customer encounters financial difficulties of its own as a result of a change in demand or for any other reason, the customer's ability to make timely payments against our accounts receivable could be impaired, which may have a material adverse effect on our financial performance.

The slowdown in the global economy has put downward pressure on prices and demand for our products.

The slowdown in the global economy, Brexit and the ongoing U.S.-China trade tension have adversely affected the market demand for semiconductor products and negatively impacted our product sales. The key markets for our products, the United States, the PRC, Japan, the ROC and Europe, continue to grow at a comparatively slow rate. A decrease in market demand typically puts significant downward pressure on our average selling prices. At the same time, reduced corporate and commercial activity also has a negative impact on the demand for and prices of our products. We cannot predict when the market for our products will recover if at all. While various governments, including that of the ROC, have implemented measures to stimulate the economy and increase liquidity in the financial markets, there can be no assurance that these measures will be successful. If the economies of the United States, the PRC and our other core markets, as well as the ROC economy, continue to grow at a slower rate, or experience a prolonged recession, our business, financial condition and results of operations would be adversely affected.

We are subject to the risks of doing business in China.

Although we intend to expand our business and operations in China, our success in the Chinese markets may be adversely affected by China's continuously evolving laws and regulations, including those relating to taxation, import and export tariffs and restrictions, currency controls, environmental regulations, indigenous innovation, and intellectual property rights and enforcement of those rights. Enforcement of existing laws or agreements may be inconsistent, and the potential issuance of new laws and regulations creates uncertainty.

In addition, changes in the political environment, governmental policies or United States-China relations could result in revisions to laws or regulations or their interpretation and enforcement, exposure of our proprietary intellectual property, increased taxation, restrictions on imports, import duties, or currency revaluations, which could have an adverse effect on our business plans and operating results. There have been changes and discussions with respect to U.S. trade policies towards China since 2018. Tariffs and retaliatory tariffs have been imposed by the U.S. and China on each other, and additional tariffs and retaliation tariffs have been proposed. Although we currently do not have any exports from China to the U.S. or *vice versa*, the trade tension between the United States and China could have a material adverse effect on our business, results of operations and financial conditions. For example, on May 15, 2019, the Bureau of Industry and Security (BIS) of the U.S. Department of Commerce added Huawei Technologies Co., Ltd. and certain of its affiliates (collectively, "Huawei") to the Bureau's Entity List (the "Entity List"), which

imposes limitations on the supply of certain United States items and product support to Huawei. To comply with the Entity List restrictions, we suspended shipments of all products to Huawei and cannot predict when we will be able to resume such shipments, which has reduced our revenue and profit in at least the near term. Although we have continuously endeavored to diversify our global customer basis to minimize the impact of the U.S.-China trade tension in the long run, there is no assurance that the U.S. government will not impose similar restrictions on our other Chinese customers of the Company, which may have a material adverse effect on our business, operation results and financial performance.

Our GaAs semiconductors may cease to be competitive with silicon alternatives.

Within our product portfolio, we manufacture and sell GaAs semiconductor devices and components, principally PAs and switches, which tend to be more expensive than their silicon counterparts. The cost differential is due to higher costs of raw materials for GaAs and higher unit costs associated with smaller-sized wafers and lower production volumes. We expect that the cost of producing GaAs devices will continue for the foreseeable future to exceed the costs of producing their silicon counterparts. In addition, silicon semiconductor technologies are widely-used process technologies for certain ICs and these technologies continue to improve in performance. Therefore, to remain competitive, we need to offer GaAs products that provide superior performance over their silicon-based counterparts. If we do not continue to offer products that provide sufficiently superior performance to justify their higher cost, our financial condition and results of operations could be materially and adversely affected. We cannot assure you that there will continue to be products and markets that require the performance attributes of GaAs solutions.

We face a risk that capital needed for our business will not be available when needed.

In the future, we may need to access sources of financing to fund our growth, especially in order to achieve the required manufacturing scale. However, there is no assurance that the capital required to fund these expenditures will be available in the future. Conditions existing in capital markets worldwide, as well as the then condition of our company, will affect our ability to raise capital and to obtain satisfactory terms of any financing. We may not be able to raise enough capital to meet our capital needs on a timely basis or at all. Failure to obtain capital when required could have a material adverse effect on us. In addition, any strategic investments and acquisitions that we may make to help us grow our business may require additional capital. We cannot assure you that the capital required to fund these investments and acquisitions will be available in the future.

Our success depends on our ability to attract and retain qualified personnel.

We depend on the efforts and skill of our senior management team and other important staff members, who are not obligated to remain employed with us. Their departure could have a material adverse effect on our operations. In addition, we believe that our future success will also depend in large part on our continued ability to attract and retain highly qualified manufacturing personnel, sales and marketing personnel, sales assistants and customer engineers, R&D staff, as well as senior management. We believe that there is, and will continue to be, intense competition for qualified personnel in the semiconductor industry as the emerging broadband wireless, wireline, satellite and optical network communications markets develop, and we cannot assure you that we will be successful in retaining our key personnel or in attracting and retaining the necessary personnel. The loss of the services of one or more of our key employees or our inability to attract, retain and motivate qualified personnel could have a material adverse effect on our ability to operate our business.

We are subject to risks of conducting business domestically and in foreign jurisdictions such as the United States, China and Europe.

Sales to customers located outside of Taiwan (based on shipping addresses and not on the locations of ultimate end-users) accounted for approximately 83.4%, 87.7% 91.0% and 93.5% of our net revenue for the years ended December 31, 2017, 2018 and 2019 and nine months ended September 30, 2020, respectively. Because we expect that international sales will continue to represent a significant portion of our net sales, we are subject to the risks of conducting business not just domestically, but also in foreign jurisdictions such as United States, China and Europe. These risks include primarily those arising from local and economic and

political conditions, international health epidemics, natural disasters, anti-trust or anti-monopoly legislations and regulations, and certain limitations of protecting intellectual property rights in foreign jurisdictions.

In particular, our business may be vulnerable to disruptions in the international trading environment, including those caused by adverse changes in foreign government regulations, political unrest, international economic downturns and terrorist attacks. These disruptions in the international trading environment may affect the demand for our products and change the terms upon which we sell our products overseas, which could seriously decrease our international sales.

In addition, our ability to compete effectively could be materially and adversely affected by a number of factors relating to international trade regulation. Higher tariffs, duties, or our failure to comply with trade regulations could restrict our ability to export products or compete effectively with our competitors, resulting in a decrease in our international sales.

We are subject to stringent environmental laws and regulations both domestically and abroad.

We are subject to a variety of domestic and foreign laws and regulations in relation to environmental protection. These environmental laws and regulations may pertain to the use, storage, handling, discharge and disposal of toxic or otherwise hazardous materials used in or resulting from our manufacturing processes. Failure to comply with environmental laws and regulations could subject us to substantial liability or force us to significantly change our manufacturing operations. Future changes to existing environmental regulations or unknown contamination of our sites, including contamination by prior owners and operators of our sites, may give rise to additional compliance costs or potential exposure to liability for environmental claims that may seriously affect our business, financial condition and results of operations.

A significant portion of our manufacturing facilities are located in areas prone to natural disasters.

A significant portion of our manufacturing facilities are located in Taiwan. Taiwan is susceptible to natural disasters and in particular, earthquakes and typhoons. On September 21 and October 22, 1999 and June 11, 2000 and other occasions, Taiwan experienced severe earthquakes that caused significant property damage and loss of life, particularly in the central part of Taiwan. These earthquakes caused damage to manufacturing facilities and adversely affected the operations of many companies. Taiwan is also susceptible to typhoons, which may cause damage and business interruptions to operations in Taiwan. In August 2009, Taiwan experienced severe damage from Typhoon Morakot, which caused over 600 deaths, severe flooding and extensive damage to properties and businesses. Although we did not experience major structural damage to our facilities in Taiwan from such earthquakes or typhoons, there can be no assurance that future natural disasters will not occur and result in major damages to our facilities in Taiwan.

Annually, we purchase commercial property damage and business interruption insurance against various risks, including earthquake, mudslide, volcanic eruption, hurricane, tornado, typhoon, and/or flooding, with limits deemed adequate for reimbursement for damage to our fixed assets and resulting disruption of operations. Any disruptions from these or other natural disasters could have a material adverse effect on our operations and financial results to the extent that losses exceed insurance recoveries.

We may be subject to lawsuits and claims relating to our products.

We face the risk of litigation raised by third parties against us, our customers or our licensors with respect to existing and future products. Any litigation to determine the validity of any third party's claims could result in significant expense and liability to us and divert the efforts of our technical and management personnel, whether or not the litigation is determined in our favour or covered by insurance.

Our insurance coverage may not adequately protect us against certain operating and other hazards which may have an adverse effect on our business.

We believe that the coverage from our insurance policies for our production facilities is in line with industry norms, based on our present operations and include adequate coverage for risks relating to fires and public liability. However, there can be no assurance that any claim under the insurance policies maintained will be timely honored in full or at all. To the extent that we suffer loss or damage that is not covered by insurance or exceeds our insurance coverage, our business, results of operations and financial condition may be materially and adversely affected. Further, we do not maintain insurance which provides coverage for all risks which may materialize in our business and operations. There can also be no assurance that insurance will continue to be available to provide reasonable, or any, coverage on reasonable commercial terms.

If our cybersecurity is breached, we may incur significant legal and financial exposure, damage to our reputation and a loss of confidence of our customers.

Our business involves the storage and transmission of confidential information relating to us as well as our customer and suppliers, and any breach in our cybersecurity system could expose us to a risk of loss, the improper use or disclosure of such information, ensuing potential liability or litigation, any of which could harm our reputation and adversely affect our business. Although there has been no material instance where an unauthorized party was able to obtain access to our data or our customers' data, there can be no assurance that we will not be vulnerable to cyber-attacks in the future. If an actual or perceived breach of our cybersecurity occurs or the market perception of the effectiveness of our cybersecurity measures is adversely affected, we may incur significant legal and financial exposure, including legal claims and regulatory fines and penalties, damage to our reputation and a loss of confidence of our customers, which could have an adverse effect on our business, financial condition and results of operations.

We may not be successful in protecting our intellectual property rights or in avoiding claims that we infringe on the intellectual property rights of others.

Our success depends in part on our ability to obtain patents and copyrights. Despite our efforts to protect our intellectual property, unauthorized third parties may violate our patents or copyrights. In addition to intellectual property that we have patented and copyrighted, we also rely on trade secrets, technical know-how and other non-patented proprietary information relating to our product development and manufacturing activities, which we seek to protect, in part, by entering into confidentiality agreements with our collaborators and employees. We cannot assure you that these agreements will not be breached, that we would have adequate remedies for any breach or that our trade secrets and proprietary know-how will not otherwise become known or independently discovered by others.

We seek to operate without infringing on the intellectual property rights of third parties. As is typical in the semiconductor industry, we may be notified in the future, that we may be infringing on certain patents and/or other intellectual property rights of other parties. We cannot assure you that we will not be subject to litigation to defend our products or processes against claims of patent infringement or other intellectual property claims. Any such litigation could result in substantial costs and diversion of our resources. If we infringe on the intellectual property rights of others, we cannot assure investors that we would be able to obtain any required licenses on commercially reasonable terms and we may be required to pay substantial damages, including treble damages, and cease production of our work product or use of one or more manufacturing processes. Even if we are ultimately successful, patent litigation can be time-consuming, disruptive to management and expensive. If any of the foregoing were to occur, our financial condition and results of operations could be materially and adversely affected. We may be unsuccessful in developing non-infringing products or negotiating licenses upon reasonable terms, as the case may be, which could harm our results of operations. Further, if any third party makes a successful claim against our customers or us, and a license is not made available to us on commercially reasonable terms, our business could be harmed.

Decisions made by our senior management with respect to related party transactions may not be considered by all of our shareholders to be in their best interests.

We have engaged from time to time in a variety of transactions with our related parties. Our policy on transactions with related parties is that such transactions shall be conducted on terms substantially as favourable to us as would be obtainable at the time in a comparable arm's length transaction with a person other than a related party. We have entered into transactions with our related parties in the past and may enter into additional transactions with our related parties in the future. No assurance can be given as to the terms of those transactions or that all of these transactions will be considered by all of our shareholders to be in their best interests.

The interests of our principal shareholders may be different from those of our other shareholders.

The interests of our principal shareholders may differ from the interests of our other shareholders. Our principal shareholders could have significant influence in determining the outcome of any corporate transaction or other matter submitted to the shareholders for approval, including mergers, consolidations and the sale of all, or substantially all, of our assets, election of directors, and other significant corporate actions. Our major shareholders have no obligation to consider our interests or the interests of our other shareholders and our other shareholders could be disadvantaged by the actions that our major shareholders choose to pursue.

We publish monthly revenue and certain other financial information as part of our ongoing reporting obligations and such information is subject to change due to normal quarter-end closing procedures and excludes expenses and other information necessary to be indicative of actual financial results.

We report our earnings and certain other income statement and balance sheet items to the TPEx and make public announcements of certain of our operating results on a monthly basis. Such information is preliminary, unconsolidated and subject to change, for example, due to adjustments upon the completion of our normal quarter-end closing processes. We also post monthly revenue information on the Market Observation Post System, or MOPS (http://mops.twse.com.tw) as part of our ongoing reporting obligations as a company listed on the TPEx. Actual revenue could differ materially from such preliminary information. Furthermore, this preliminary revenue information only reflects sales information up to December 2020 and does not include consolidated results, operating costs, operating expenses or other expenses or potential non-operating losses and therefore are not indicative of our actual financial results for such months, any current quarter or future periods. Consequently, you should not place undue reliance on such information.

We may from time to time issue financial forecast and if we are unable to meet such forecast, our Share prices may be negatively affected.

We may from time to time issue financial forecast based on current estimates of our business and prospects. We will amend our financial forecast if needed but we may not be able to meet our forecast due to various risks and factors, some of which are beyond our control. If we cannot meet any of our financial forecasts, we may disappoint our investors and our share price may be significantly adversely affected, which will affect our business and operations.

The liquidity and valuation of our investments in marketable securities could be affected by disruption in financial markets.

The liquidity and valuation of our investments in marketable securities could be affected by disruption in financial markets. As of September 30, 2020, we maintained financial investments in publicly traded stock valued at NT\$5,206.1 million (US\$179.8 million) and equity funds and money market funds valued at NT\$856.6 million (US\$29.6 million). However, financial markets can temporarily or permanently have an imbalance of buyers and sellers that can impact valuations and liquidity. Such imbalances could negatively impact the fair value of our investments, requiring a charge against income, our access to cash and the liquidity of our marketable securities. We cannot assure you that our marketable securities could be sold for their carrying value or in our required timeframe to support our intermediate term cash-flow and liquidity needs.

Exchange rate fluctuations could negatively affect our results of operations.

As our Shares are listed on the TPEx, our financial statements are required to be presented in NT dollars, the lawful currency of the ROC. Therefore, when translating our financial statements from U.S. dollars to NT dollars, assets and liabilities are translated using the exchange rates at the balance sheet date. Profit and loss accounts are translated at weighted-average rates of the year. The equity accounts are translated at historical rates except for that of the beginning of the year, which is carried from prior year's balance.

Most of our sales are denominated in U.S. dollars, while the majority of our raw materials and equipment costs are paid for primarily in U.S. dollars, with a substantial portion of our labor cost paid in NT dollars.

Accordingly, our operations are exposed to fluctuations among U.S. dollars and NT dollars exchange rates and, to a lesser extent, exchange rates between other currencies. The impact of future exchange rate fluctuations among these currencies on our financial performance and financial condition cannot be accurately predicted, and there can be no assurance that our attempt to mitigate the adverse effects of exchange rate fluctuations will be successful or that such exchange rate fluctuations will not in the future have a material adverse effect on our financial performance, financial condition and prospects.

Risks Relating to the ROC

Strained relations between the ROC and the PRC and political developments in the ROC could adversely affect our business and the market value of the Bonds or our Shares.

Our principal executive offices and a significant portion of our assets and operations are located in Taiwan and our Shares are listed on the TPEx. Accordingly, our business, financial condition and results of operations and the market price of our Shares and the Bonds may be affected by changes in the ROC governmental policies, taxation, inflation, interest rates, social instability and other political, economic, diplomatic or social developments in or affecting the ROC which are outside our control. Taiwan has a unique international political status. Both the governments of the PRC and the ROC assert sovereignty over Taiwan. The PRC government does not recognize the legitimacy of the government of the ROC. Although significant economic and cultural relations have been established in the past decade between Taiwan and the PRC, the PRC has refused to renounce the possibility that it might use force to gain control over Taiwan if Taiwan were to declare independence or if a foreign power were to interfere in Taiwan's domestic affairs. Relations between the PRC and the ROC have at times been strained. Strained relations could result in future military actions or economic sanctions or other disruptive activities undertaken by either government. Past tensions between the PRC and the ROC have on occasion depressed the market price of the securities of ROC companies. There is no assurance that relations between the ROC and the PRC will not deteriorate, or that future military actions or economic sanctions or other disruptive activities will not be undertaken by either the PRC or ROC governments.

The trading price of our Shares and the Bonds may be adversely affected by the general activities of the TWSE and TPEx and the economic performance of Taiwan.

The trading price of our Shares and the Bonds may be adversely affected by the general activities of the TWSE and the TPEx and economic conditions in Taiwan. Our Shares are listed on the TPEx. The trading price of the Bonds may be affected by the trading price of our Shares on the TPEx, the general activities of the TWSE and the TPEx and the economic performance of Taiwan. The TPEx is smaller and, as a market, more volatile than the securities markets in the United States and a number of European countries. The TPEx has experienced substantial fluctuations in the prices and volumes of sales of listed securities, and there are currently limits on the range of daily price movements on the TPEx. In the past decade, the TPEx Index reached a low of 86.21 on December 19, 2011 and peaked at 184.24 on December 30, 2020. In 2020, daily closing prices of our Shares ranged from NT\$195.50 to NT\$358.00. On January 6, 2021, the TPEx Index closed at 184.26, and the daily closing price of our Shares was NT\$371.00 per share.

The Taiwan stock markets, including the TPEx, are particularly volatile during times of political instability, such as when relations between Taiwan and the PRC are strained. In response to past declines and volatility in the securities markets in Taiwan, and in line with similar activities by other countries in Asia, the ROC government formed the National Financial Stabilization Fund, which has purchased, and may from time to time purchase shares of ROC companies listed on the TPEx and the TWSE, to support these markets. In the future, market activity by government entities, or the perception that such activity is taking place, may take place or has ceased, may cause fluctuations in the market prices and liquidity of our Shares. In addition, the TPEx offers significantly less liquidity than the TWSE, which makes securities listed on the TPEx generally less attractive to foreign institutional investors in particular. The TPEx has also experienced issues such as market manipulation, insider trading and payment defaults. The continuation or recurrence of these or similar problems and issues could adversely affect the market prices and liquidity of our Shares and the Bonds.

Our future investment in the PRC or other countries may be restricted by the ROC laws and regulations relating to investment of ROC entities in the PRC or foreign countries and failure to obtain, maintain or renew approvals for inbound and outbound investments may materially and adversely affect our financial condition and results of operation.

Under Taiwan Relations Between Peoples of the Taiwan Area and the Mainland Area Act (the "Act"), Taiwanese nationals may only invest in the PRC after obtaining the prior approval of the Investment Commission of the MOEA unless the investment amount is less than US\$1,000,000. The III-V compound foundry industry falls within the permitted investment category under the Act. We do not obtain the qualification as an operational headquarters in Taiwan from the Industrial Development Bureau of the MOEA and thus we are subject to the restriction on the investment amount which is currently 60% of the amount of our consolidated net assets and thus limit our capability to invest in the PRC and our growth potential.

The Investment Commission of the MOEA has supervisory and regulatory authority for matters relating to, among other things, inbound investment in Taiwan companies by non-ROC persons and overseas ROC nationals, and outbound investments by Taiwan companies or individuals. Under current ROC law, ROC companies are required to obtain prior approval from or, within the period of time prescribed by relevant laws and regulations, a post filing with Investment Commission of the MOEA for making certain investments in any other jurisdictions outside Taiwan under certain circumstances. There is no assurance that we will be able to continue to satisfy the requirements for, or otherwise obtain, permits or approvals for current and future projects. Failure to obtain, maintain or renew such permits and approvals may impede or hinder our operations, expansion and adversely affect our financial condition, results of operations and business prospects.

The imposition of foreign exchange restrictions may have an adverse effect on foreign investors' abilities to acquire ROC securities, including our Shares, or to repatriate the interest, dividends or sale proceeds from those securities.

The ROC government may impose foreign exchange restrictions in certain emergency situations, including situations where there are sudden fluctuations in interest rates or exchange rates, where the ROC government experiences extreme difficulty in stabilizing the balance of payments or where there are substantial disturbances in the financial and capital markets in Taiwan. These restrictions may require foreign investors to obtain Taiwan government's approval before acquiring ROC securities, repatriating the interest or dividends from those securities or repatriating the proceeds from the sale of those securities. There can be no assurance that these restrictions, if imposed, will not adversely affect, among other things, the secondary market price of the Bonds.

Financial reporting requirements and accounting standards in the ROC differ from those in other countries.

We are subject to financial reporting requirements in the ROC that differ in significant respects from those applicable to companies in certain other countries, including the United States. In addition, our financial statements are prepared in accordance with Taiwan IFRS, which differ in certain significant respects from generally accepted accounting principles in certain other countries, such as U.S. GAAP or IFRS. See "Summary of Certain Material Differences Between Taiwan IFRS and IFRS." The accounting treatment adopted by us under Taiwan IFRS may cause volatility of our revenue and/or profits. Potential investors should consult their own professional advisers for an understanding of such differences and how they might affect the financial information contained herein.

You may not be able to enforce a judgment of a foreign court in the ROC.

We are a company incorporated under the ROC Company Act. Substantially all of our Directors and executive officers and certain of the parties named herein are residents of Taiwan, and a significant portion of our assets and the assets of such persons are located in Taiwan. As a result, it may be difficult for investors to enforce judgments obtained outside Taiwan against us or such persons in Taiwan.

Foreign exchange approvals may be required.

Under the current ROC law, foreign exchange approvals must be obtained from the CBC on a payment-by-payment basis for the conversion from NT dollars into foreign currencies in connection with the proceeds from the sale of subscription rights for newly issued Shares if the proceeds are in excess of US\$100,000 per remittance. Although such approvals have been routinely granted in the past, there can be no assurance that in the future any of such approvals will be obtained in a timely manner, or at all. In addition, foreign persons may, subject to certain required documents, but without foreign exchange approval of the CBC, remit outside and into the ROC foreign currencies of up to US\$100,000 (or its equivalent) for each remittance. There is no assurance that no requirement for approval of such remittance will continue being applicable in the future.

Our future tax obligations may adversely affect our profitability.

The ROC government enacted the ROC Income Basic Tax Act, also known as the "Alternative Minimum Tax Act", or the AMT Act, which became effective on January 1, 2006 to impose an alternative minimum tax and to remedy the then excessive tax incentives for individuals and businesses. Alternative minimum tax, or AMT, is a supplemental tax which is payable if the income tax payable pursuant to the ROC Income Tax Act is below the minimum amount prescribed under the AMT Act. For the purpose of calculating the AMT, the taxable income defined under the AMT Act includes most income that is exempted from income tax under various legislations, such as those providing tax holidays and investment tax credits. For businesses, the income that previously enjoyed tax-exemption privileges under relevant tax regulations, such as the Act for the Establishment and Administration of the Science Parks and Statute for Upgrading Industries, will be subject to the AMT system for the calculation of business taxpayers' aggregate incomes. The AMT rate for business entities was 10% prior to 2013 and has increased to 12% since 2013. Under the AMT Act, a company will be subject to a 12% AMT if its annual taxable income under the statute exceeds NT\$0.5 million. However, the AMT Act grandfathered certain tax exemptions granted prior to the enactment of the AMT. As the tax exemption periods expire or in the event of an increase in other taxable income subject to the AMT Act, it may adversely impact our net income after tax.

Risks Related to Our Shares and the Bonds

There are limitations on the Bondholders' ability to exercise Conversion Rights.

The Bondholders will not be able to exercise Conversion Rights (as defined in "Description of the Bonds") during any Closed Period (as defined in "Description of the Bonds"). Under the current ROC law, regulations and policies, PRC persons are not permitted to convert the Bonds or to register as our shareholders unless (i) it is a qualified domestic institutional investor, or a QDII, which will hold less than 10% of the Common Shares after conversion of the Bonds, or (ii) it otherwise obtains the approval of the Investment Commission of the MOEA if all the business items of the Company are within the positive list promulgated by the ROC government from time to time in the event that it will hold 10% or more (or other threshold required by the regulators) of the Common Shares after conversion of the Bonds. In addition, there are restrictions on the amount remitted to Taiwan for investments by QDIIs, separately and jointly. Accordingly, the qualification criteria for a PRC person to make investment and the investment threshold imposed by the FSC and the TWSE might cause a Bondholder who is a PRC person to be unable to convert and hold our Shares issuable upon conversion of the Bonds. Under current ROC laws, "PRC person" means an individual holding a passport issued by the PRC, a resident of any area of the PRC under the effective control or jurisdiction of the PRC (but not including a special administrative region of the PRC such as Hong Kong and Macau, if so excluded by applicable laws of Taiwan), any agency or instrumentality of the PRC and any corporation, partnership or other entity organized under the laws of any such area or controlled by, or directly or indirectly having more than 30% of its capital owned by, or beneficially owned by any such person, resident, agency or instrumentality.

Shares including, but not limited to any securities that may be convertible into, or exchangeable for, our Shares that are eligible for future sale by us or our current shareholders may adversely affect the value of your investment.

The market prices of the Bonds and our Shares could decline as a result of sales of a large number of our Shares or any securities that are substantially similar to our Shares including, but not limited to any securities that may be convertible into, or exchangeable for, our Shares after this offering or the perception that such sales could occur. For example, in October 2012, our Global Depositary Receipts ("GDRs") were issued and listed on the Luxembourg Stock Exchange. Although we have terminated the GDRs dealings in December 2018, we may issue other securities that are substantially similar to our Shares in the future. In connection with the offering, we agreed to certain lock-ups, subject to certain exceptions, for a period of 90 days after the Closing Date not to (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, or file with the United States Securities and Exchange Commission a registration statement under the Securities Act relating to, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Common Stock or any such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise. Nevertheless, when the applicable restrictive period expires, we will be able to sell or otherwise dispose of our Shares, subject to legal restrictions. In addition, we cannot assure you that any of our shareholders will not sell, or otherwise dispose of, our Shares. If our shareholders sell a large number of our Shares after this offering, the market price of the Bonds and our Shares could be depressed and the value of your investment could substantially decrease. The market prices of our Shares and the Bonds could also decline if substantial amounts of our Shares or securities convertible or exchangeable into our Shares are sold after the closing of this offering, or if there is a perception that these sales could occur.

A liquid market for the Bonds may not develop, and the market for our Shares may not be liquid.

Prior to this offering, there has been no market for the Bonds. Application will be made for the listing of the Bonds but not our Shares on the SGX-ST. An active trading market for the Bonds might not develop or could not be maintained. Holders of the Bonds may experience difficulty in reselling the Bonds or may be unable to sell them at all. If a market for the Bonds develops, it may be discontinued at any time. Although the Initial Purchaser have advised the Company that they currently intend to make a market in the Bonds, they are not obligated to do so and may discontinue market-making activity at any time without notice. The Bonds are subject to the restrictions on transfer described under "Transfer Restrictions."

The Bonds have not been registered under the securities laws of the United States or elsewhere and cannot be publicly offered, sold, pledged or otherwise transferred in any jurisdiction where such registration may be required. The Bonds may not be publicly offered or sold, directly or indirectly, in the ROC. Furthermore, there has been no trading market for our Shares outside the ROC, and the only trading market for our Shares is the TPEx.

Holders of the Bonds will bear the risk of fluctuations in the price of our Shares.

The market price of the Bonds at any time will be affected by fluctuations in the price of our Shares. It is impossible to predict how the price of our Shares will change. Trading prices of our Shares will be influenced by, among other things, our results of operations and political, economic, financial and other factors that affect capital markets generally. Any decline in the price of our Shares would adversely affect the market price of the Bonds.

Fluctuations in the exchange rate between the NT dollar and the U.S. dollar may have a material adverse effect on the value of the Bonds in U.S. dollar terms.

Although the principal amount of the Bonds is denominated in U.S. dollars, our Shares are listed on the TPEx, which quotes and trades our Shares in NT dollars. As a result, fluctuations in the exchange rate

between the NT dollar and the U.S. dollar will affect, among other things, the market price of the Bonds and the U.S. dollar equivalent of our Shares received upon conversion of the Bonds.

Holders of the Bonds will have no rights as shareholders until they acquire our Shares upon conversion of the Bonds.

Unless and until the holders of the Bonds acquire our Shares upon conversion of the Bonds, the holders of the Bonds will have no rights as shareholders, including any voting rights or rights to receive any dividends or other distributions with respect to our Shares. Subject to the indenture and other applicable ROC laws, holders of the Bonds who acquire our Shares upon the exercise of their Conversion Rights will be entitled to exercise the rights of shareholders only as to actions for which the applicable record date occurs after the Conversion Date.

Non-ROC holders of the Bonds will be required to register with the TWSE and appoint several local agents in Taiwan if they convert the Bonds and become our shareholders, which may make ownership burdensome.

When a non-ROC person converts the Bonds or registers as our shareholder, such non-ROC person will be required under the current ROC law and regulations to appoint an agent, or a tax guarantor, in the ROC for filing tax returns and making tax payments. A tax guarantor must meet certain qualifications set by the Ministry of Finance of the ROC and, upon appointment, becomes a guarantor of a non-ROC person's ROC tax obligations. Evidence of the appointment of a Tax Guarantor and the approval of such appointment or tax clearance certification are required as conditions to repatriating the holder's profits derived from the sale of Common Shares. We cannot assure that such non-ROC person will be able to appoint and obtain approval for a tax guarantor in a timely manner, if at all.

In addition, under current ROC law, if a non-ROC person is an overseas Chinese or foreign national or entity having not been registered with the TWSE, when exercising the Conversion Right, such non-ROC person will be required to first register with the TWSE and then appoint a local agent to, among other things, open a general securities trading account with a local securities brokerage firm to hold or trade our Shares, remit funds and exercise shareholders' rights. A non-ROC person is also required to appoint a custodian for handling confirmation and settlement of trades, safekeeping of securities and cash proceeds, and reporting and declaration of information. Under existing ROC laws and regulations, without satisfying these requirements, a non-ROC person will not be able to hold or to sell or otherwise transfer our Shares on the TPEx or otherwise. We should point out that these regulations may change from time to time. We cannot assure you that you will be able to register with the TWSE and open the requisite accounts in a timely manner or that current ROC law will remain in effect or that future changes in ROC law will not adversely affect your ability to convert the Bonds into our Common Shares.

Holders of the Bonds may be subject to the income tax imposed by Taiwan when they sell our Shares delivered upon conversion of the Bonds.

As used in this section, a "Non-ROC Resident Individual" is a foreign national individual who owns the Bonds or our Shares and is not physically present in the ROC for 183 days or more during any calendar year, and a "Non-ROC Resident Entity" is a corporation or a non-corporate body that owns the Bonds or our Shares and is organized under the laws of a jurisdiction other than the ROC and has no fixed place of business or business agent in the ROC. "Non-ROC Resident Individuals" and "Non-ROC Resident Entities" are jointly referred to as "Non-ROC Holders."

Starting from January 1, 2016, capital gains realized from the sale or disposal of our Shares are exempt from ROC income tax under Article 4-1 of the ROC Income Tax Act. Nevertheless, capital gains realized from the sale or disposal of the Bonds are exempt from ROC income tax. There is no assurance that capital gains realized from the sale or disposal of our Shares may be able to be exempted from ROC income tax in the future.

Holders of the Bonds or their designee requesting the conversion of the Bonds into our Shares may be required to provide certain information to us, and failure to provide that information may result in a delay of the conversion.

A Holder of the Bonds or its designee requesting the conversion of the Bonds into our Shares may be required to provide certain information to the Company or the Paying Agent, including the name and nationality of the person to be registered as the shareholder, the number of Shares to be acquired by such person and the number of Shares acquired by such person in the past through the Conversion Date. Under applicable ROC laws, the Company is required to report to the FSC if the person to be registered as a shareholder (i) is a "related party" of the Company as defined in the Regulations Governing the Preparation of Financial Reports by Securities Issuers or (ii) will hold, immediately following such conversion, more than 10% of the total number of our Shares deliverable upon conversion of the aggregate principal amount of the Bonds at the time of issuance based on the initial conversion price. Failure to provide such information may result in a delay of the conversion of the Bonds.

Our public shareholders may have more difficulty in protecting their interests than they would as a shareholder of a corporation of other jurisdictions.

Our corporate affairs are governed by our articles of incorporation and ROC laws and regulations. The rights of our shareholders to bring shareholders' suits against our Board of Directors under ROC laws are much more limited than those of the shareholders of corporations of some other jurisdictions. Therefore, our public shareholders may have more difficulty in protecting their interests in connection with actions taken against our management, members of our Board of Directors or controlling shareholders than they would as shareholders of corporations of other jurisdictions.

A Bondholder's right to receive payments on the Bonds is structurally subordinated.

As of September 30, 2020, we had outstanding secured debt of NT\$3,463.58 million (US\$119.64 million). The Bonds will be effectively subordinated to any of our secured obligations with respect to assets that secure such obligations. The terms of the Bonds do not prevent us from incurring additional debt in the future and we are generally permitted to secure this indebtedness, although our existing financial covenants may restrict our future borrowings. If we incur further indebtedness, our ability to make payments on the Bonds and, if required, to redeem the Bonds may be adversely affected.

We may not have the ability to redeem the Bonds.

We will at maturity be required to redeem all of the Bonds and the Bondholders may require us to redeem for cash all or some of their Bonds on January 14, 2024 or upon a transaction or event constituting a change of control or delisting or otherwise as described under in "Description of the Bonds." We may not have sufficient funds or other financial resources to make the required redemption in cash at such time or the ability to arrange necessary financing on acceptable terms, or at all. Our ability to redeem the Bonds in such event may also be limited by the terms of other debt instruments. Failure to repay, repurchase or redeem tendered Bonds by us would constitute an event of default under the Bonds, which may also constitute a default under the terms of other indebtedness held by us.

USE OF PROCEEDS

The net proceeds to be received by us from the Offering are expected to be US\$497 million, after deducting underwriting commissions and related expenses. We intend to use the net proceeds of the Offering for the procurement of raw materials and capital expenditure in foreign currencies.

MARKET PRICE INFORMATION

Our Shares began trading on the TPEx in December 2011. The table below sets forth, for the periods indicated, the high and low closing prices on the TPEx for the Shares and the highest and lowest of the daily closing values of the TPEx Index. On January 6, 2021, the reported closing price of the Shares was NT\$371.00 per share and the TPEx Index closed at 184.26.

	Closing Price per Share ⁽¹⁾		TPEx Index	
	High	Low	High	Low
_	(N)	Γ \$)		
2015	53.50	25.80	147.73	99.95
2016	96.90	46.25	132.91	117.09
2017	323.50	85.80	151.28	124.01
2018	331.00	88.00	159.07	109.93
2019	343.50	114.00	149.36	122.33
2020				
January	305.00	275.00	150.91	141.01
February	316.00	270.50	147.91	139.06
March	290.00	195.50	145.18	103.25
April	278.00	247.00	137.70	118.60
May	282.50	239.50	147.38	137.06
June	305.00	264.00	160.06	149.05
July	339.00	292.00	175.94	157.77
August	304.50	260.00	166.98	156.73
September	303.00	278.00	168.91	158.60
October	319.50	285.00	166.04	161.93
November	338.00	302.50	176.62	161.25
December	358.00	336.50	184.24	176.93
2021				
January (through January 6)	371.00	364.50	185.95	184.26

Source: TPEx

Prices of shares trading on the TPEx have fluctuated substantially in the past and there are currently limits on the range of daily price movements. For more information about the TPEx, see "Appendix A — The Securities Market of the ROC."

⁽¹⁾ As reported.

CHANGES IN SHARE CAPITAL

The following table sets out the changes in our issued share capital since January 1, 2017 and up to the date of this offering memorandum.

Date of issue	Type of issue	Number of Common Shares issued/(Cancelled) (thousands)	Total number of issued Common Shares after the issue/(Cancellation) (thousands)
January 2017	Capital reduction due to cancellation		
	of treasury shares	(5,000)	402,666
January 2018	Capital increase by cash through		
	private placement	20,000	422,666
October 2018	Capital increase by issuing new		
	restricted employee shares	1,148	423,814
April 2018	Capital deduction by redemption and		
	retirement of restricted shares of stock		
	for employee	(20)	423,794
June 2019	Capital increase by issuing new		
	restricted employee shares	262	424,056

As of the date of this offering memorandum, we had 424,056,384 Common Shares in issue.

DIVIDENDS AND DIVIDEND POLICY

Dividend Policy

We are generally not permitted under the ROC Company Act to distribute dividends or to make any other distributions to shareholders for any fiscal year in which we have not generated net income. In addition, before distributing a dividend or making any other distribution to shareholders, we must pay all outstanding taxes, recover any past losses, and set aside a legal reserve equal to 10% of our net income until the legal reserve reaches an amount equal to at least 100% of our paid-in share capital. Apart from the aforesaid legal reserve, we also set aside a special reserve in accordance with applicable laws and regulations when necessary.

Our Company's Articles of Incorporation further stipulate that for the remaining net income the Company shall set aside at least 50% for shareholder, the distribution of remaining balance of such net income should be proposed by the Board of Directors and resolved by the shareholders' meeting, and the cash dividends should not be lower than 10% of the total stockholders' dividends.

It is authorized the distributable dividends and bonuses or legal capital reserve and capital reserve in whole or in part may be paid in cash after a resolution has been adopted by a majority vote at a meeting of the Board of Directors attended by two-thirds of the total number of directors; and in addition thereto a report of such distribution shall be submitted to the shareholders' meeting.

As we are a capital-intensive technology company and still growing, we have adopted a prudent dividend policy for distributing our retained earnings in order to ensure our long- term capital needs and sustainable growth.

According to the Company's Article of Incorporation, if there is any net profit after closing of a fiscal year, it shall be allocated according to the following principles:

- (1) Employees' remuneration: not less than 5% but no more than 10% and shall be determined and pursuant to Employee Bonus Procedure of the Company. In addition, employees' profit-sharing remuneration shall be distributed in the form of shares or cash. Stock-type employee remuneration may be distributed to qualified employees of affiliates of the Company.
- (2) Remuneration of Directors: no more than 3%.

However, if there are any accumulated losses of the Company, the Company shall pre-reserve the amount to offset the loss. The distribution of employees' profit-sharing bonus and remuneration of Directors shall follow the special resolution by the Board of Directors, and report it to the shareholders' meeting.

Past Dividends

On March 18, 2020, our Board approved the distribution of a cash dividend of NT\$7 per Common Share in the total amount of NT\$2,968.4 million (US\$102.5 million) with respect to our earnings for the year ended December 31, 2019, and the cash dividend distribution proposal was reported to the shareholders in the general shareholders' meeting on June 12, 2020. We paid this dividend on July 22, 2020.

On June14, 2019, our shareholders approved the distribution of a cash dividend of NT\$5 per Common Share in the total amount of NT\$2,119.0 million (US\$73.2 million) with respect to our earnings for the year ended December 31, 2018. We paid this dividend on July 19, 2019.

On June 15, 2018, our shareholders approved the distribution of a cash dividend of NT\$7 per Common Share in the total amount of NT\$2,958.7 million (US\$102.2 million) for the year ended December 31, 2017. We paid this dividend on July 20, 2018.

Our past dividend payment history is not, and should not be taken as, an indication of our potential future practice with respect to dividend payment.

EXCHANGE RATES

We publish our financial statements in New Taiwan dollars, the lawful currency of the ROC. In this offering memorandum, "\$," "US\$" and "U.S. dollars" mean United States dollars, the lawful currency of the United States, and "NT\$" and "NT dollars" mean New Taiwan dollars. This offering memorandum contains translations of certain NT dollar amounts into U.S. dollars at specified rates solely for the convenience of the reader. The translations from NT dollars to U.S. dollars and from U.S. dollars to NT dollars were made on the basis of the noon buying rate as published by the Federal Reserve H.10 Statistical Release. Unless otherwise noted, all translations were made at the exchange rate as of September 30, 2020, which was NT\$28.9500 to US\$1.00.

No representation is made that the NT dollar or U.S. dollar amounts referred to herein could have been or could be converted into U.S. dollars or NT dollars, as the case may be, at any particular rate or at all.

CAPITALIZATION

The following table sets forth our capitalization as of September 30, 2020, on an actual basis and as adjusted for the issuance of the Bonds under the Bond Offering, without deducting underwriting discount and commission and other offering expenses. Other than as disclosed herein, there has been no material change in our capitalization since September 30, 2020.

The following table should be read in conjunction with our financial statements and the notes thereto included elsewhere herein.

	As of September 30, 2020			
	Actual		As adjusted for th	is offering ⁽¹⁾
	NT\$	US\$	NT\$	US\$
		(in thous	ands)	
Long-term liabilities				
Long-term borrowings (excluding current				
portion of long-term borrowings)	10,432,675	360,369	23,959,648	827,622
Non-current lease liabilities	357,452	12,347	357,452	12,347
Other non-current liabilities	224,224	7,745	224,224	7,745
Total long-term liabilities	11,014,351	380,461	24,541,324	847,714
Stockholders' equity to the owners of				
parent				
Share capital - Ordinary shares	4,240,564	146,479	4,240,564	146,479
Total capital surplus	9,268,720	320,163	10,009,657	345,757
Total retained earnings	15,693,380	542,086	15,693,380	542,086
Total other equity interests	2,797,826	96,643	2,797,826	96,643
Total stockholder's equity to the owners of				
parent	32,000,490	1,105,371	32,741,427	1,130,965
Total capitalization ⁽²⁾	43,014,841	1,485,832	57,282,751	1,978,679

⁽¹⁾ The adjusted basis reflects the estimated fees and expenses, the derivative instruments, and the equity instrument relating to the offering.

⁽²⁾ Total capitalization includes total long-term liabilities and total stockholder's equity to the owners of parent.

INDUSTRY OVERVIEW

III-V compound Semiconductor Industry Overview

Semiconductor materials can be categorized into single-element semiconductor and compound semiconductor. The compound semiconductors are mainly III-V compound materials made by group-III element and group-V elements. Such III-V compound semiconductors include, among others, GaAs, GaN and InP. Among III-V compound semiconductors, GaAs is most widely used in semiconductor devices with its inherent physical properties that allow its electrons to move up to five times faster than those of silicon. As a result, GaAs provides better electrical performance at higher frequencies versus silicon, and also results in improved power efficiency and consequently longer battery life. In addition, for RF applications GaAs substrate is semi-insulating whereas silicon is conductive. The semi-insulating properties of GaAs permit integration of numerous functions in a single device which currently cannot be realized effectively in silicon-based ICs, thereby permitting further miniaturization with GaAs. The characteristics of GaAs made it extensively used in applications in wireless communications, optical communications, and advanced national defense, aviation, and satellite industries. Other categories of III-V compounds, such as GaN and InP, have also gradually become commonly used in the end-use applications in recent years.

Increasing demand for wireless communication applications is a critical driver for the growth of GaAs semiconductor industry. The key components of RFFE modules in cellular phones are the Power Amplifier (PA), RF Switch, and LNA. GaAs PA had the irreplaceable physical advantage, particularly high power transmission. At present, most of the RF PAs are made from GaAs. The upgrades of 5G will drive up the number of PAs in wireless communication devices. Due to ongoing cellular migration to 5G, it is expected that there will be a higher number of PAs for new bands of Sub-6GHz. In addition, following the popularization of IoT in the next few years, the deployment of infrastructure and demand on upgrading handheld devices will make the use of GaAs applications more extensive.

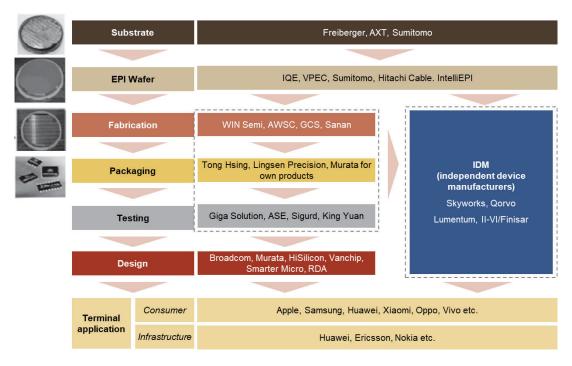
With its advantage of small size and high integration, GaAs applications are also widely used in 3D sensing and optical devices markets, such as VCSEL. Over the past few years, there is an increase in the development and use of VSCEL-based applications, such as Biometric, AR/VR, and ADAS. The use of optical communication technologies has also been extended to more areas, such as automobile, data center and fiber to home applications.

In addition, the introduction of Wi-Fi 6 is expected to refuel demand for GaAs Wi-Fi PAs in an attempt to realize a faster speed. The higher MIMO support could also boost the number of Wi-Fi PAs per product.

Further, the developments in satellite communications resulting from the active investment and deployment of high, medium, and low orbit satellite systems by various countries has also driven up the market of III-V compound semiconductors.

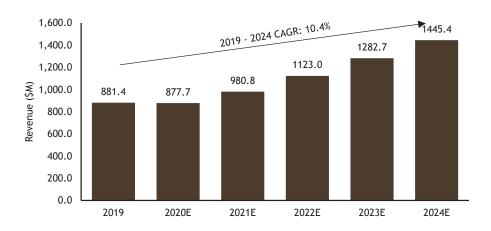
III-V Compound Semiconductor Value-Chain

In the III-V compound semiconductor manufacturing process, substrate production is the first upstream activity of the supply chain, followed by key materials and epitaxial wafers, including MOCVD and MBE technologies. For the mid-stream, the supply chain includes wafer fabrication, packaging, and testing. Regarding the industry as a whole, apart from wafer fabrication, the design and advanced technologies in the industry are still dominated by international IDM companies. Downstream vendors comprise mobile phone and WLAN manufacturers as well as RF system developers. The supply chain of the III-V compound semiconductor industry is summarized below:



The core competencies of IDM companies are their product design and manufacturing capabilities. Due to continued growth and evolution of wireless communications end market, IDMs continue to innovate and develop the next generation products to drive differentiation and deliver innovation to customers, as well as to be competitive in the market. On the other hand, foundries have the advantage of diversification and advanced production technology as well as more efficient mass production methods to achieve operating efficiency. Currently, more and more IDM companies have outsourced their wafer production to foundries, becoming fab-lite or fab-less companies. According to Strategy Analytics, the GaAs foundry market grew at a CAGR of 7.9% from 2015 to 2019, and is expected to grow at a CAGR of 10.4% from 2019 to 2024. The growth is primarily driven by 5G deployments and the increasing use of VCSELs in 3D sensing.

GaAs Foundry Market Size

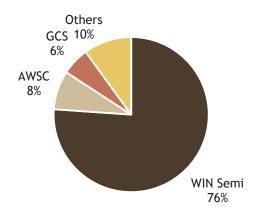


Source: unpublished data from Strategy Analytics

Note: The decrease in 2019 was primary due to a decline in smartphone shipments in 2019.

WIN Semi is the largest player in the GaAs foundry market, with a market share of 76.1% in the RF GaAs foundry market in terms of revenue in 2019, according to Strategy Analytics. Many customers prefer outsourcing to pure-play foundries as foundries have a competitive cost advantage and high manufacturing efficiency. Thus, pure-play foundries have been steadily gaining market share.

RF GaAs Foundry Market Share



Total foundry revenue: US\$881.4 million

Source: Strategy Analytics, "RF GaAs Revenue Drops in 2019" by Eric Higham, March 2020.

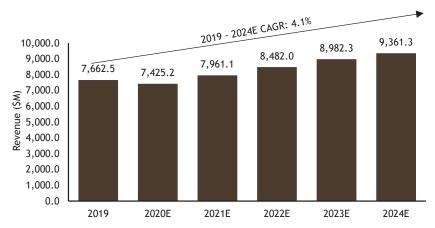
Application of III-V Compound Semiconductors

III-V compound semiconductors are used in diverse applications, including, among others:

- PAs in cellular devices and wireless networks;
- 3D sensing, optical communications and optical devices;
- base stations, backhaul and fiber optic networks in wireless communication infrastructure systems;
 and
- radio, satellites and others.

GaAs device revenue is largely driven by the demand in the wireless communications segment. GaAs is widely used in RFFE modules such as PA, and optical components such as VCSEL. Accordingly, GaAs devices market primarily consist of RF devices and VCSEL. According to Strategy Analytics, in terms of revenue, the GaAs device market and VCSEL market are expected to grow at a CAGR of 4.1% and 22.7% from 2019 to 2024, respectively, reaching a market of US\$9,361.3 million and US\$4,337.1 million in 2024. The increase in demand for GaAs-based devices will provide continued growth momentum for GaAs wafers.

GaAs Device Market Size



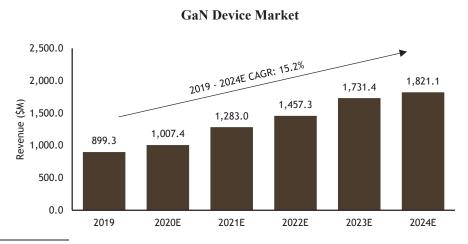
Source: unpublished data from Strategy Analytics

Note: IDM's GaAs related total revenues are used as an approximation to GaAs Device market size.

VCSEL Market Size 5,000.0 4,337.1 4,500.0 2019 - 2024E CAGR: 22.7% 4,000.0 3,522.5 3,500.0 Revenue (\$M) 2,877.9 3,000.0 2,339.5 2,500.0 1,906.7 2,000.0 1,557.7 1,500.0 1,000.0 500.0 0.0 2019 2020E 2021E 2022E 2023E 2024E

Source: unpublished data from Strategy Analytics

In addition to GaAs, there are other III-V compound semiconductors, such as GaN and InP, that are favourable alternatives to silicon. GaN has wide bandgap, high breakdown voltage, and extremely high power density, making it well suited for products in areas of radar, electronic warfare, wireless base stations and satellites. In particular, GaN RF PAs are able to provide a significant efficiency improvement compared to LDMOS and hence has an advantage in reducing the operating expenses in base station. GaN's advantages of high RF power, high reliability, high power efficiency and small size make it suitable for a wide variety of satellite commutations applications. According to Strategy Analytics, the total revenue of the GaN device market is expected to reach US\$1,821.1 million in 2024, representing a CAGR of 15.2% from 2019 to 2024.



Source: unpublished data from Strategy Analytics

InP includes phosphorus and indium. It has a superior electron velocity and a direct bandgap, making it useful in high-power and high-frequency electronics and optoelectronics applications. It is also a key semiconductor material that enables optical systems to deliver the performance required for data center, mobile backhaul, metro and long-haul applications. Further, lasers, photodiodes and waveguides fabricated on InP operate at the optimum transmission window of glass fiber, which enables efficient fiber communications.

Key Drivers for III-V Compound Semiconductor Foundry Market

With the industrial development and overall trends in the economic environment, the overall III-V compound device and application markets and as a result, the III-V compound foundry market is characterized by the following growth drivers and trends.

Cellular communication has evolved from 3G to more advanced 4G in early 2010s, and now 5G networks are rolling out and offering vast range of services at higher speeds amidst changing consumer trend. Starting in 2019, 5G commercial services have been provided worldwide, and statistics show that major mobile phone manufacturers launched over 13 mobile phones that support 5G in 2019. Still, the development of 5G is in its early stages. The latest Ericsson Mobility Report published by Ericsson in November 2019 shows that the number of 5G users worldwide will reach 2.6 billion by the end of 2025 under the rapid development and active promotion of the 5G ecosystem, covering 65% of the global population and handling 45% of mobile data worldwide.

RF related components could be a major beneficiary of the 5G upgrade, as 5G adds new frequency bands and the module design is becoming more advanced for features such as MIMO. It is expected that smartphones will require more PAs to function with 5G compared with 4G as there will be a higher number of PAs for new bands of Sub-6GHz. The development of 5G communications added 3 new commonly used frequency bands N41, N77, and N79, and increased the demand from base stations and mobile phones on new process technologies, such as GaN HEMT and GaAs pHEMT/PINHEMT applied to base station PAs and LNAs. Due to the independent systems of 4G and 5G communications, new 5G mobile phones need additional 5G PAs made from new generation to meet the stricter requirements. The massive MIMO system used in new 5G base stations also significantly increased demand on front-end wireless communication models.

5G Smartphone penetration

Driven by the rapid development of 5G technology which has been commercialized in countries one after another lately, the worldwide 5G smartphone penetration is expected to continuously increased in the next several years. The increasing 5G smartphone penetration will continue to be driven by consumer demand for faster mobile Internet transmission, the growing emphasis by vendors and carriers to push out higher-end smartphones for replacement sales, and the availability of mid-range and entry-level smartphones targeting the mass market. As the data transmission rate of 5G is expected to be 100 times faster than 4G LTE, only the GaAs PA can handle such rapid data transmissions. The cost-to-performance gap between GaAs and silicon in power amplifier applications continues to widen. In addition, the demand of PAs per 5G smartphone would potentially be significantly higher than PAs required per 4G smartphone as 4G PAs cannot be used for 5G PAs even for the same frequency band. As a result, 5G smartphones require more radio-frequent components such as PAs and will lead to a greater growth in III-V compound foundry market.

5G infrastructure spending

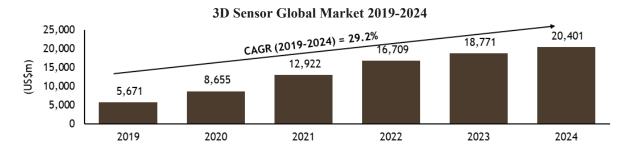
Countries around the world have released even more 5G frequency bands in recent years, numerous 5G mobile phones have been launched since 2019, and commercial operation of 5G has begun in specific areas in several countries. The change in communication specifications has driven the deployment, renewal, and upgrade of infrastructure, leading to the continuous expansion of the 5G infrastructure market.

3D sensing

The adoption of VCSEL technology in 3D sensing extends possibilities of consumer and scientific applications including 3D facial recognition (adopted first in mobile phones), AR, proximity/light sensors as well as automotive in-cabin sensing and automotive LiDAR.

In mobile devices, 3D sensing will augment camera capabilities to enable object recognition, capture depth data in an image or augment reality as seen through the device's camera. VCSEL has scalable output power, high quality optical beam and stable wavelength. It is also easy to package and has no single emitter failure point. Such advantages make VCSEL very suitable to be used on mobile devices. Two types of system used include i) structured light (SL), which first adopted by Apple on its smartphones in 2017 and has been witnessing robust demand since then, and ii) ToF, the production of which started in 2020 and is expected to experience strong growth in the next few years. 3D sensing will, in the future, also apply to new field such as AR/VR, drone, and autonomous car which making the VCSEL industry flourishing.

According to Technavio, the total revenue of 3D sensors market is expected to reach US\$20,400.9 million in 2024, representing a CAGR of approximately 29.2% from 2019 to 2024. The market share of consumer electronics in 3D sensors market, in terms of revenue, is expected to increase from 61.3% to 73.3%.



Source: Technavio, 3D Sensors Market by Application and Geography - Forecast and Analysis 2020-2024.

Wi-Fi 6

Wi-Fi and 5G offer complementary functionalities. Following the significant increase in data transmission from 5G communications, Wi-Fi communication systems have begun to adopt the Wi-Fi 6 (802.11ax) protocol. Both 5G and Wi-Fi 6 provide faster data transmission to support new applications and increases in network capacity with the ability to connect more users and devices. They co-exist and work better together to support different scenarios.

Wi-Fi 6 is the newest 802.11 wireless standard that is pushing the performance envelope with a faster speed than the previous Wi-Fi 5 (802.11ac) protocol. Wi-Fi 6 routers are designed to offer higher capacity compared to Wi-Fi 5 ones in term of users and data streams. First released in 2019, the Wi-Fi 6 protocol has experienced strong increase in market penetration globally and the introduction and increasing adoption of Wi-Fi 6 is expected to boost the number of PAs needed in each router, given the need for better MIMO feature, and hence drive up the global Wi-Fi PA shipment.

Other applications

Optical communications

As VCSELs can be modulated with high frequencies, they can be used for optical fiber communication, especially by high-speed data centers and optical inter-connects that rely on the development of such ultrafast optical transmitters to handle the heavy data traffic.

With the increase in penetration of technologies such as 5G, 4K videos, AR/VR etc., the data center industry is expected to experience rapid growth in the next few years and hence driving the demand for optical communication technologies.

Satellites

Satellite communication equipment plays vital roles in the global communications ecosystem by supporting a broad and expanding variety of applications in telecom, weather monitoring, aeronautical communications, maritime applications and navigation.

In recent years, GaAs and GaN semiconductor technologies are becoming the go-to RFFE technology solutions for power amplification in satellite communications. GaAs and GaN are enabling a wide variety of satellite communications applications.

Migration of IDMs to fab-lite / fabless business model

IDMs have internal capacity to manufacture the wafers used for their products. Fabless companies do not have manufacturing facilities and rely on third-party contract manufacturing vendors, known as foundries, to manufacture wafers for the chips that they design. As a general trend, most IDMs are now increasing their

use of foundry vendors and seek to focus resources on new product designs and marketing, which is a key driver for the growth of III-V compound foundry market.

Manufacturing of semiconductors requires substantial investment in specialized equipment and facilities, where there needs to be efficient use of assets, and significant management focus. By utilizing the capabilities of the foundry vendors, IDMs are able to focus on their core areas of expertise in chip design to compete more effectively with fables players. The level of skill and technology required for manufacturing is also increasing rapidly. It is, consequently, more efficient for the IDMs to outsource the production process to specialized companies that are able to amortize their R&D and equipment costs over a large number of customers than to have their own dedicated facilities. Foundries not only need to go through a strict and long customer qualification process, but also strive to develop more efficient process technologies with greater cost competitiveness. This has created a barrier to entry that is difficult for new entrants to cross over, and also created a cost advantage that is hard for IDM competitors to imitate, which accelerated the transition of IDM companies to the so called fab-lite and even fab-less business model, further increasing their dependency on foundries. For example, WIN Semi signed a memorandum of understanding with Avago at the end of 2017 and agreed to purchase Avago's HBT production line machinery and equipment. Avago will outsource all HBT products that were produced from their HBT production line to WIN Semi in the future. Such trend of outsourcing from IDMs and the rise of foundries will drive up the growth of pureplay foundry markets.

BUSINESS

Overview

We are a leading III-V compound foundry player globally and according to Strategy Analytics, we are the world's largest GaAs foundry player, with a global market share of 76.1% in terms of revenue in 2019, according to Strategy Analytics.

Our products power modern communication systems and are used in a wide range of products including smartphones, tablet computers, cellular networks, base stations, satellite communications, automotive electronics, and digital consumer electronics.

Founded in October 1999, we were the first pure-play 6-inch GaAs foundry in the world. We manufacture semiconductor devices on GaAs wafers based on proprietary circuitry designs provided by our customers, which include world-leading IDMs and fabless design houses. Our products are integrated circuits consisting of a large number of building blocks called HBTs and pHEMTs, fabricated on GaAs wafers and arranged according to a circuitry layout designed by our customers. Our different customers' proprietary circuitry designs serve their chips' unique functionalities. Most of our products belong to the general categories of high frequency and high power RFICs and optoelectronic devices used for applications ranging from mobile communications, WLAN, base stations, 3D sensing, Datacom and satellite communications.

We have the largest production capacity among the world's dedicated III-V compound foundries. We believe that we are among the leaders of fabrication process technology in the global III-V compound market. We aim to provide our customers leading-edge technologies and sufficient manufacturing capacity to support their needs. We have built three semiconductor fabrication facilities, commonly known as "fabs," located in Guishan District, Taoyuan City, Taiwan.

For the year ended December 31, 2019 and the nine months ended September 30, 2020, our net revenue was NT\$21,377.7 million (US\$738.4 million) and NT\$18,685.1 million (US\$645.4 million), respectively. Our net income was NT\$4,400.8 million (US\$152.0 million) for the year ended in December 31, 2019 and NT\$5,193.1 million (US\$179.4 million) for the nine months ended September 30, 2020.

Our History

Our Company was incorporated in Taiwan, the ROC on October 16, 1999. In March 2001, we successfully presented the world's first 6-inch, 0.15µm gate length pHEMT MMIC wafer. In April 2003, Mr. Dennis Chen was unanimously elected chairman of our Board. In May 2005, we successfully developed high performance HBT process technology for 2G/3G handsets. We broke even for the first time in the month of August 2006 and recorded earnings per share of NT\$0.79 for the full year of 2007. In June 2008, we were qualified by Skyworks as its foundry partner. In December 2011, our Common Stocks were listed on TPEx. As of December 2015, we had accumulatively more than 1 million wafers shipped. In March 2016, Fab C was put in mass production. In November 2017, Morgan Stanley Capital International enlists WIN Semiconductors Corp. in MSCI Global Standard Indexes. In January and February 2018, we pass AS9100 certification and SONY Green Partner certification (WIN Fab-B), respectively. In February 2020, we are selected as Industry Mover for The Sustainability Yearbook 2020 published by S&P Global in collaboration with RobecoSAM. In November 2020, we were included in the Dow Jones Sustainability World Index (DJSI World) for the first time.

Our Competitive Strengths

Our main competitive strengths include:

World's leading III-V compound foundry player with strong growth momentum

We are a leading III-V compound foundry player globally and according to Strategy Analytics, we are the world's largest GaAs foundry player. Our market share in the global GaAs foundry market increased from 58.2% in 2015 to 76.1% in 2019, according to Strategy Analytics. Our revenue increased at a CAGR of

11.9% from 2017 to 2019, comparing to a decrease in the global GaAs device market during the same period, according to Strategy Analytics, due to the decline in smartphone shipments in 2019.

We have the largest III-V compound manufacturing capacity among the world's dedicated III-V compound foundries. The monthly GaAs wafer manufacturing capacity in our fabs increased from approximately 29,000 as of December 31, 2017 to approximately 36,000 as of December 31, 2019. As of September 30, 2020, the monthly wafer manufacturing capacity reached approximately 41,000. Our unparalleled manufacturing capacity is a key competitive advantage in attracting top-tier fabless design houses and IDM customers.

We are a pure-play foundry. We manufacture III-V compound semiconductor chips based on proprietary circuit designs provided by our customers. We do not design our own chips and thus do not compete with our customers. As a result, although under the foundry business model, our customers provide their proprietary design information to us for manufacturing, such arrangement does not raise any conflict of interest to our fabless and IDM customers and they are very willing to share manufacturing know-how with us. Our pure-play foundry model creates a solid basis for our customers' trust on us and further strengthens our relationship with them.

Many IDMs that possess in-house manufacturing capacity face the risks of periodic over-capacity and under-capacity due to the fluctuation in the semiconductor industry. By outsourcing a portion of their manufacturing to us, they can alleviate such risks and save costs. We also play an active role in the transition of IDMs to fab-lite companies. For example, in 2017, we entered into a memorandum of understanding with Avago to purchase its HBT production lines and Avago agrees to outsource the production of HBT products to us. We believe that the continued trend of going fabless and fab-lite of worldwide communication and wireless IDMs and our established leading position in the foundry business position us for further market share gains in the future.

Exposure to attractive end markets with secular, long-term growth outlook

III-V compound technology realized the utilization of high frequency signal transmissions in wireless communication and other modern communication systems. Among the III-V compounds, GaAs is currently the dominant semiconductor material used in the mass production of RF communication chips. According to Strategy Analytics, revenue from the global GaAs device industry is expected to grow at a CAGR of 4.1% from 2019 to reach approximately US\$9,361.3 million in 2024.

Modern communication systems are evolving at a fast pace. Over the last decade, the prevalence of wireless applications and 4G/LTE deployment have brought the development of cutting-edge wireless broadband devices like smartphone and tablet computer with WLAN and mobile broadband capabilities. Looking ahead into the next decade, as communication networks migrate and advance from 4G/LTE to 5G, there would be further increases in demand for PAs and RF communication chips. In 5G era, communication devices such as smartphones operate in more frequency bands to accommodate multiple global standards and each frequency band will require its own GaAs chips. The continued increase of GaAs content in smartphones and other communication devices supports steady, long-term growth in the GaAs industry and our business. For the nine months ended September 30, 2020, a significant portion of our net revenue came from sales of products used in handsets, followed by sales of products for infrastructure and Wi-Fi (WLAN) applications. With the increasing use of smaller satellites and portable, mobile satellite communication devices, the demand for our GaN PAs has been driven up for the power supply of satellites with its advantage in high power density.

III-V compound is also used in sensing applications, such as VCSEL, which is commonly used in facial and gesture recognition. The adoption of 3D sensing in iPhone X in 2017 marked a new stage of the 3D sensing applications. Since then, 3D sensing has been used in consumer electronic products, which provides new growth opportunities for VCSEL. Strategy Analytics forecasts that VCSEL devices market is expected to grow at a CAGR of 22.7% from 2019 to 2024. According to the market research & strategy consulting company, Yole Développement (Yole), the VCSEL market is expected to generate revenue of \$1.1 billion in

2020 and should reach \$2.3 billion in 2024 at a 19.7% CAGR during this period², with mobile and consumer representing the largest sector.

Along with 5G development, Wi-Fi communication systems have also begun to adopt the Wi-Fi 6 (802.11ax) protocol. First released in 2019, the Wi-Fi 6 protocol has experienced strong increase in market penetration globally and the introduction and increasing adoption of Wi-Fi 6 is expected to boost the number of PAs needed in each router, given the need for better MIMO feature, and hence will likely drive up the global Wi-Fi PA shipment. As a leader in the global III-V compound foundry market, we are well positioned to benefit from the growth of the global GaAs market.

In recent years, we have increased the exposure of our products in China. China is among one of the countries with highest penetration rates of 5G smartphones and the large size of the smartphone market in China presents a potentially huge market opportunity for III-V compound chips and our business. In addition, the Chinese government has recently imposed various measures to encourage domestic semiconductor development and production, which also provides great opportunities for us to expand our market in China.

Superior technology and manufacturing capabilities

We believe we have the most advanced and innovated technologies in the III-V compound industry. Our ability to develop new technologies independently differentiates us from some of our competitors who have limited capabilities to develop their own technologies. We have the capability to provide microwave device technologies that cover the frequency spectrum from direct current to 130 GHz, which can meet the demand of most rapidly growing markets. We participated in one of the ROC government's R&D projects, which completed the development of the first 100% domestic self-made four-inch semi-insulating silicon carbide (SiC) substrate and GaN epitaxial technology. In terms of satellite communications, we are capable to provide technologies suitable for satellite communications including millimeter wave GaAs pHEMT, GaN HEMT and PINHEMT, as well as the Ku/Ka band power amplifier and LNA used in front-end RF modules, and received the AS9100 certificate. Our comprehensive portfolio of technologies enables our customers to develop products for a wide range of applications.

We have over twenty years of experience in GaAs chip production on 6-inch wafers, compared with certain other key industry players that converted production lines from 4-inch to 6-inch in 2010s, which enables us to have the first-mover advantage in the development of applications in 3D sensing. Besides the longest history of production on 6-inch wafers in the industry, we have also demonstrated superiority in our manufacturing capacity, process reliability, product quality and operation efficiency, which enables us to manufacture and deliver products to our customers in short cycle times and help them shorten their products' time to market. We have an excellent track record of on-time delivery and high production yields.

Our industry leadership in technology and manufacturing enables us to provide superior value and outstanding service to our customers. It also enables us to charge a premium in pricing over many of our competitors, to some extent mitigating the general trend of declining average selling prices in the industry.

Diversified top-tier customers and end markets

We are the primary foundry partner for the world's leading component suppliers for diversified end market applications, including RF, microwave, mm-wave applications, LiDAR and 3D sensing, among other things. Our customers include majority of top-tier IDMs and fabless design houses. Our customers are leaders in their sectors and some of them have successfully penetrated leading smartphone and tablet OEMs in the United States, Asia and Europe and benefitted from strong growth momentum as a result. Our continual expansion in capacity and advancement in technology provide our customers an edge in bringing the latest products to market at a rate faster than their competitors.

Due to the long period of time required by our customers to qualify a supplier and the risks of trade secret leakage, the costs to qualify a potential foundry is very high. Once a foundry has become qualified and

² Source: VCSELs – Market and Technology Trends 2020 report, Yole Développement, 2020.

satisfied all the requirements regarding quality, delivery time and production capacity, the possibility for the customer to switch to another foundry is very low. We have been certified by numerous global IDMs and the quality of our products have been recognized by their end customers, which creates potential barriers for other foundries to enter into cooperation relationships with such IDMs.

We provide value-added services to our customers to help them resolve issues in relation to process technology and launch new products in time. We also form close partnerships with our customers to remain informed of market trends and our customers' needs. We and some of our customers jointly develop strategic initiatives for product and processing technology development. Such partnerships have enabled us to increase the share of our sales of products purchased by our major customers and have helped our smaller customers to grow faster than their peers.

With our penetration in different end markets and increases of our market share, we are able to attract new customers in diverse end markets including handsets, infrastructure, automotive, 3D sensing, optical communications and satellite communication and establish a diversified customer base. In 2004, we began to expand our customer base into China, one of the world's largest and fastest growing mobile communication markets. We expect to continue to have a larger and more diversified customer base in the coming years.

We believe that diversification of our customers and the end markets in which our products are eventually used will help us to decrease our business risk profile and reduce our revenue volatilities.

Strong management team with proven track record

We have a strong and stable management team. Our chairman of the Board, Mr. Chin-Tsai Chen, has been chairman of our Company since 2003 and has led us to achieve consistent market share gains and significant profits. Our senior management team consists of professional executives with extensive industry experience in various aspects of our operations. A majority of the members of our technology management team have overseas educational backgrounds and work experience, and many worked in leading technology companies such as Bell Labs, United Microelectronics Corporation, Macronix International Co., Ltd., Skyworks, Lockheed Martin Corp. and Huga Optotech Inc. We believe that our outstanding management team will continue to drive our success in the future.

Our Strategies

We plan to implement the following strategies:

Investing in manufacturing capacity to capture market growth and maintain leadership

Manufacturing capacity is a critical criterion when a fabless design house or an IDM selects its foundry partner. Although we already have the largest manufacturing capacity in the III-V compound foundry industry, our utilization rate is relatively high. We therefore plan to continue to expand our manufacturing capacity to meet the demand of our customers for increased mass production in the future. We currently have three fabs. We plan to expand the manufacturing capacity in Fab C by installing more facilities. In addition, we obtained the investment permit in the Southern Taiwan Science Park approved by the Ministry of Science and Technology in August 2020, which provides more possibilities for us to expand manufacturing capacity in the future. Currently, the expansion in connection with such investment permit is under planning and evaluation stage. We do not have any immediate plan to use any of the proceeds of the Offering in the expansion to the Southern Taiwan Science Park. We believe that capacity expansion is an important step in our goal to become a foundry providing one-stop solution for our customers.

Investing in technology to maintain our competitive edge and penetrate new markets

Superiority of manufacturing technology is another key criterion when a fabless design house or an IDM selects its foundry partner. Although we already have the most advanced technology portfolio in the III-V compound foundry industry, we plan to continue our R&D investment to maintain our technological edge and to meet our customers' evolving demands. For example, we have invested considerable R&D resources

in InP PIN & APD applied to data com/data center in the field of optical communications. We have also continuously cooperated with related customers to develop and certify EEL technology applied in automotive LiDAR to get prepared for the next generation of self-driving car applications.

We intend to leverage our technology capabilities to enter into new markets, such as ToF, LiDAR and data center. Our goal is to diversify our product portfolio and in the long term increase our focus on non-handset business, which generally contribute to an increase in gross profit margin.

Developing new customers in existing and new markets to further diversify revenue source

We intend to further develop and expand our customer base and our end-markets to further diversify our revenue sources and reduce our exposure to revenue and profit risks. Currently, we are mainly exploring non-handset markets and high frequency applications such as satellite communications. As a long-term alternative, we also seek to explore the area of optical devices by leveraging our processing technologies.

Leveraging technology and manufacturing expertise for continuous cost and efficiency improvement

The semiconductor industry is capital-intensive and cost-sensitive. Maintaining a low cost per chip sold is crucial to our profitability and competitiveness. We believe our wafer yield is one of the highest in the III-V compound foundry industry. Building upon our achievements, we seek to continue to improve our wafer efficiencies, including die size reduction. These measures can help reduce costs and improve manufacturing yield and cycle times, thereby enhancing our competitiveness.

While we source the majority of our epi wafers externally, we produce a small portion of the epi wafers used in our manufacturing. We believe that this enables us to streamline new product development, improve quality assurance and control, shorten manufacturing cycle times and lower the risks in connection with reliance on external epi wafers.

Competent technical and manufacturing personnel are critical to our success. We will continue to hire, train and retain technical and manufacturing staff with expertise, enthusiasm and dedication.

Principal Product Offerings

We are a III-V compound semiconductors pure-play foundry. We build semiconductor devices primarily on GaAs epi wafers based on proprietary circuitry designs provided by our customers. In addition to advanced semiconductor fabrication technology, we also provide layout support and automated DC/RF on-wafer testing to our customers.

In the microwave high-tech field of wireless broadband communications, we primarily provide two major GaAs transistor manufacturing process technologies: HBT and pHEMT, both of which are the state-of-the-art wireless broadband communications microwave process technologies. Our product lines can satisfy the requirements for a multitude of frequency band wireless communication application systems ranging from 100MHz to 100GHz. With MMIC technique as basis, we also provide optoelectronic device fabrication services for optical communication and 3D sensing applications.

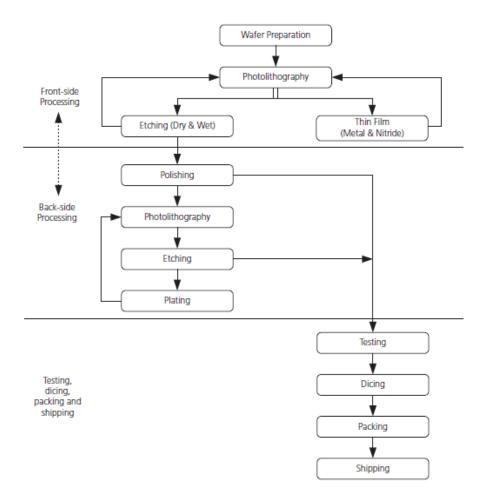
The process technologies, which we independently developed, are now used in mass production of applications in areas of wireless communications and optical communications, including handheld mobile communications devices (such as smart phones and tablet computers) with 4G/5G communications and Wi-Fi functions and wireless routers that are produced using GaAs HBT and pHEMT. GaAs pHEMT and GaN HEMT are used in 4G/5G base stations and satellite communications and VSAT signal transmission and reception related applications. GaAs VCSEL and InP are widely used in optical communication sensors and optical information transmission related components. In addition, we have also developed optical communication technologies for automobile, data center, and fiber to home applications, with the ability to provide flexible and large scale product manufacturing services for LD and PD design houses.

The following table shows the main types of devices currently manufactured in our fabs and their respective applications:

Market Applications	Device Technology
Cable TV Amplifier	pHEMT
Optical Modulator Driver	pHEMT
Cellular Power Amplifier	HBT, BiHEMT
Base Station Power Amplifier	GaN HEMT
Wireless LAN (WLAN)	HBT, BiHEMT
Point-to-Point Radio	pHEMT
GPS Amplifier	pHEMT
Very Small Aperture Terminal (VSAT)	pHEMT, GaN HEMT
Broadband Satellite Communication	pHEMT
Automotive Radar	pHEMT, HBT
Optical Communication Laser	GaAs, InP Laser Diodes
Optical Communication Photo Detector	GaAs, InP Photo Diodes

Manufacturing Process

The diagram below illustrates our manufacturing process:



GaAs device manufacturing process

GaAs wafer processing consists of two main steps: front-side processing and back-side processing. The front-side processing is a sequence of processing steps that forms the functional transistors and other devices on the wafer surface as well as metal layers that interconnect these individual functional devices, according to the proprietary circuitry design provided by our customers. The back-side processing is a sequence of processing steps that creates vias through the wafer and connects the front side of the wafer to the back side of the wafer where certain contact pads for the chip are also defined.

Front-side processing

Front-side processing starts with epi wafer preparation. This step typically involves wafer inspection and wafer cleaning in an acid bath. After the wafer is cleaned, a thin layer of photosensitive material called photoresist is uniformly applied to the surface of the wafer using a spin coater. Next, the wafer is loaded into a photolithography stepper machine, together with a photolithography mask, on which a certain device layout is etched. The stepper then "steps" across the surface of the wafer and in each "step," the stepper shines ultraviolet ("UV") light through the mask onto the photoresist surface. In each such stepping, the stepper exposes a small section of the wafer which, at the end of the wafer processing, becomes a chip. The part of the mask where the device layout resides is not transparent, therefore UV light cannot pass through it. Consequently, part of the photoresist is not exposed by the UV light. The exposed part of the photoresist becomes soluble in certain developer liquid. After the exposed photoresist is developed away in a photoresist developer, the pattern of the unexposed and remaining photoresist resembles the device layout originally etched on the mask. Next, the wafer, still with photoresist on its surface, is loaded into an etcher³. The epi layer on the part of the surface of the wafer that is not covered by the photoresist is etched by an etchant and the part of the surface of the wafer that is covered by the photoresist is protected. After the photoresist is stripped, the pattern of the remaining epi layer on the surface of the wafer resembles that of the device layout originally etched on the mask. This process is called a "pattern transfer": after such a process, the device layout pattern is transferred from the mask to the wafer surface. Next, the wafer goes through a thin film deposition step where a layer of new material is deposited onto the surface of the wafer⁴. Afterwards, the pattern transfer process is repeated, in which another certain device layout originally etched on a new mask is transferred to the surface of the wafer.

After individual functional devices are built on the surface of the wafer, an insulation layer, typically a layer of silicon nitride, is deposited to insulate individual devices from each other. A photolithography step follows, using a mask on which certain circuitry layout is etched. An etch step follows to create contact via holes that enable connecting the individual devices, which are now buried in the insulating silicon nitride layer, to each other. Next, an interconnecting metal layer, typically gold or copper, is deposited on the surface of the wafer. A pattern transfer step is repeated and the metal interconnecting layer is defined according to a circuit layout provided by our customers. The pattern transfer step repeats until all interconnecting metal layers are defined.

Our front-side processing typically involves 6 to 15 masks, thus 6 to 15 steps of pattern transfers. The aggregation of the partial device and circuitry layouts on all the front-side masks represents the proprietary circuitry designed by our customers.

We possess e-beam lithography capability in our fabs. E-beam lithography is capable of crisp definition of very narrow line widths that photolithography may not able to define. We apply e-beam lithography to our 0.1µm and 0.15µm pHEMT process, which serves the niche area of broadband amplifiers for fiber-optic communication and fiber-optic network applications.

Depending on the state of the etchants, an etcher could be a dry etcher (using plasma as an etchant) or a wet etcher (using chemical as an etchant).

Depending on the stage of the processing sequence, the layer of new material could be a metal layer (for active device areas) or a layer of silicon nitride (for isolation).

Back-side processing

Back-side processing starts with polishing the back side of the wafer to reduce the thickness of the wafer to customers' specifications. A pattern transfer step is completed to create vias that run from the front side of the wafer to the back side of the wafer. A metal layer is plated on the back side surface of the back side of the wafer as well as in the via in a plating station, electrically connecting the front side and the back side of the wafer. A pattern transfer step is completed to define the metal layer at the back side surface of the back side of the wafer. Another pattern transfer step is completed to define the cut lines that will be used for dicing the wafer in subsequent steps. Our back-side processing typically involves two masks.

GaAs wafer testing, dicing, packing and shipment

In our typical wafer processing, the stepper machine can define approximately 1,000 to 30,000 chips on a single wafer. After the back-side processing, the entire wafer is loaded into an automated tester using customized probe cards, and each chip is tested according to a pre-programmed sequence. A pass/fail record of each individual chip is recorded, and a digital wafer map of the test results is generated, which will be sent to the customer together with the chips.

After the wafer testing, the back side of the entire wafer is attached to a piece of sticky tape and sent to a laser or saw dicing machine. A diamond saw or a laser beam is aimed at the cut lines between individual chips. The diamond saw or laser beam cuts through the cut lines and physically separates the chips. However, because the back side of each chip is still attached to the sticky tape, the overall shape of the wafer remains the same after the dicing process. We are gradually migrating from saw dicing to laser dicing. This is because the conventional diamond saw dicing requires an inherently wide cut line built in the mask layout between individual chips, imposed by the width of the diamond blade. As a result, the process wasted wafer real estate which could have been used for chips. Laser dicing could significantly reduce the cut line width requirement because the width of the cutting laser beam could be very narrow. The laser dicing also has higher throughput than the conventional die saw process because it is faster.

Next, the entire wafer is put into a clear wafer carrier, and labels with identifying information about the chips are attached to the outside of the wafer carrier. Finally the wafer carrier is bubble-wrapped and put into a shipping box and ready for shipment.

Our Manufacturing Facilities

Fabs

We operate three 6-inch wafer fabs, Fab A, Fab B and Fab C. Our corporate headquarters and the three fabs are located in Guishan District, Taoyuan City, Taiwan and occupy parcels of land with a total of approximately 35,349.83 square metres. We own all the land on which our headquarters and our fabs are located. The monthly GaAs wafer manufacturing capacity in our fabs increased from approximately 29,000 as of December 31, 2017 to approximately 36,000 as of December 31, 2019. As of September 30, 2020, the monthly wafer manufacturing capacity reached approximately 41,000. Our fabs were running at a utilization rate of approximately 80% for the year ended December 31, 2019. All of our fabs operate 24 hours a day, seven days a week, except for annual scheduled maintenance stoppages.

Manufacturing equipment

III-V compound semiconductor manufacturing is a highly complex process that relies upon technologically advanced equipment meeting stringent requirements. Our equipment suppliers customize the equipment used in our production process to our specifications. In addition, our engineers implement and optimize our equipment sets in our fabs to maximize manufacturing productivity and achieve consistently high yields. The principal equipment used by our fabs are epi wafer characterization systems, cleaners, chemical vapor deposition equipment, including plasma-enhanced CVD systems, photolithography steppers, e-beam writers, coaters and developers, dry etchers, chemical etching stations, metallization equipment, plating stations, die saws, laser dicing equipment and automatic material handling systems, etc. We own all of the equipment used at our fabs.

We source our manufacturing equipment from the world's leading III-V compound semiconductor equipment vendors including Aixtron, Tokyo Electron, etc. Benchmarked with our competitors and the IDMs which own their own GaAs fabs, we believe that we have the most advanced III-V compound processing equipment in the industry.

In implementing our capacity expansion and technology upgrade plans, we expect to make significant investment in purchases of new equipment. We believe that our relationships with our equipment vendors are good, and we work closely with these vendors so that they are able to provide us with equipment that is customized to our technological and other requirements.

Raw Materials and Suppliers

Major types of raw materials used in our manufacturing process include epi wafers and precious metals and various chemicals. We seek to establish long-term relationships with stable and reliable suppliers to ensure uninterrupted supply of these raw materials on mutually satisfactory price, quality and delivery terms.

Our raw materials, which were used in our manufacturing process include epi wafers and precious metals and various chemicals, constituted 46.4%, 41.9%, 42.5% and 45.3% of our operating costs in 2017, 2018 and 2019 and the nine months ended September 30, 2020, respectively.

We typically have standard purchase agreements for essential raw materials. Substantially all of our purchases of raw materials are on a purchase order basis. These agreements contain provisions to ensure quality and a stable supply. The suppliers provide a volume commitment at the end of each year. In addition, we are allowed to inspect suppliers' facilities where the materials are produced to verify their compliance with production standards and our specifications.

Most of our raw materials are available from several sources, both within Taiwan and abroad. We select only those suppliers that have demonstrated superior quality control and reliability regarding delivery time. We try to maintain several sources for each raw material so that a quality or delivery problem with any one supplier will not adversely affect our operations. The lead time required by our suppliers is generally less than one month from the date the purchase order is received. We evaluate the quality and delivery performance of each supplier on a regular basis, and quantity allocations are adjusted for subsequent periods based upon these evaluations.

While we maintain long-term relationships with our suppliers as part of our procurement strategy to protect against raw material shortages, our agreements with them do not carry binding purchase quantity obligations. We generally carry approximately three months of inventory of raw materials, since sufficient quantities can be obtained from our suppliers within this period. Our inventory turnover days increased from approximately 114 days for the year ended December 31, 2019 to approximately 129 days for the nine months ended September 30, 2020 mainly due to our increased holding of gold in anticipation of gold price increase.

Sales and Marketing

We sell the majority of our products directly to our customers. Our customers are primarily located worldwide in America, Asia, Europe and domestically in Taiwan. Historically, most of our sales are to Asia, including Taiwan, and America. The following table sets forth the percentages of our net revenue by regions for the periods indicated:

For the nine months.

	For the y	ended September 30,		
Region ⁽¹⁾	2017	2020		
Asia (excluding Taiwan)	61.83%	59.90%	67.95%	66.61%
America	18.39%	24.09%	18.70%	22.11%
Taiwan	16.61%	12.31%	9.02%	6.49%
Europe	3.16%	3.70%	4.33%	4.79%
Australia	0.01%	-	-	-
Total	100%	100%	100%	100%

⁽¹⁾ The statistics in the table is calculated on the basis of customer's geographical location in the specific region.

As we continue to develop new technologies to penetrate different application markets and increase our market share, we aim to build close relationships with industry leaders and form strategic partnerships with them.

We aim to provide one-stop solution to our customers. We have dedicated account managers to develop an in-depth understanding of our customers' markets and their strengths and weaknesses. We develop strategic initiatives to accelerate our customers' product development cycles and to penetrate deep into their specific areas. For customers that are leaders in their area, we assign technical and business resources to their accounts. We ordinarily conduct quarterly or monthly review meetings with our major customers. For certain customers, we conduct weekly review meetings with them. Top level executive meetings also are regularly conducted. We also routinely conduct technology presentations to demonstrate to our customers our technology advancements. These sessions provide us with a deep understanding of our customers' business plans and enable us to meet their needs accordingly. This has enabled us to increase the share of our products among products purchased by these market leaders and has helped our smaller customers to grow faster than their peers.

We regularly attend industrial exhibitions worldwide to meet with prospective customers. If the customer decides to work with us, the first tape-out can release within six months or sooner. Production orders normally come in within a year.

Our pricing is based on cost, order volume, strategic partnership and market price. Products sold in different geographical regions or for different applications command different prices. For example, prices for high frequency products are more expensive due to their more complex design and manufacturing process. Such products also generate higher margins for us.

Customers

Most of our customers are IDMs and fabless design houses in the wireless communication, optical communication and RF component industry. In 2017, 2018, 2019 and nine months ended September 30, 2020, our three largest customers accounted for, on a customer group basis, approximately 60.4%, 52.9%, 42.6% and 41.3% of our total net revenue, respectively.

Research and Development

The III-V compound industry is characterized by frequent and rapid changes in technology, frequently resulting in the introduction of new technologies to meet customers' demand and in the obsolescence of recently introduced technology and products. We make substantial capital expenditure to support our research and development efforts. We spent NT\$692.8 million, NT\$973.9 million, NT\$1,107.9 million (US\$38.3 million) and NT\$839.5 million (US\$29.0 million) in the three years ended December 31, 2017, 2018 and 2019 and for the nine months ended September 30, 2020, respectively, on R&D, representing 4.1%, 5.6%, 5.2% and 4.5% of our net revenue over the same periods. Based on our current achievements, we aim to provide our customers with more competitive processing technologies and to further strengthen our leading position in the III-V compound foundry industry. As of September 30, 2020, a total of 146 of the employees (excluding managers) of our Company (without any subsidiary) were involved in R&D activities, representing 4.8% of the total employees of our Company (without any subsidiary).

We expect to focus our research and development efforts in the following areas in the coming years to maintain our technology leadership:

- Continuing to develop next-generation HBT technology and focusing on new frequency bands required for future 5G communication systems, especially on PAs that require hyper frequency bands and higher output power;
- Continuing to develop OEM services for filters and duplexers to meet the future demand for highly integrated modules;

- Advancing process technologies to provide high-power HBTs for femtocells and high-power GaN HEMTs for large base stations;
- Developing a more advanced and competitive <0.1μm GaAs pHEMT, for communication infrastructure and fast-growing big data applications;
- Continuing to develop next generation highly-integrated GaAs PINHEMT to realize single-chip, multifunction capabilities to meet future communications requirements;
- Establishing upstream expertise and capabilities in compound semiconductor epitaxy; and
- Continuing to develop advanced process technologies and packaging solutions with a focus on the requirements of future 5G products and applications.

Intellectual Property

Our intellectual property is mainly derived from our own R&D efforts. As of September 30, 2020, we owned 4 trademarks and 157 patents, and had 33 patents pending. To complement our technology portfolio, we obtain license from some of our customers certain technologies we jointly developed with them. The following table summarizes our material licensing agreements:

Licensor Technology		Term		
Advanpack Solutions Pte Ltd	Cu Pillar Bump	November 11, 2010 — patent expiration date		

We also established several co-development arrangements with our leading customers, universities and governments for the development of certain GaAs and GaN MMIC manufacturing and wafer cap processing technologies. We and these entities have agreed that intellectual properties arising out of these co-development efforts will be solely owned by us or jointly owned by both parties.

We rely primarily upon trade secrets, technical know-how and other unpatented proprietary information relating to our product development and manufacturing activities. To protect our trade secrets, technical know-how and other proprietary information, our employees are required to enter into agreements providing for maintenance of confidentiality and the assignment of rights to inventions made by them while in our employ. The standard employment agreement also includes an undertaking, in which our employees agree to enter into a non-compete agreement not to compete with our businesses following the end of their employment.

We also have entered into nondisclosure agreements to protect our confidential information delivered to third parties in conjunction with possible corporate collaborations and for other purposes. See "Risk Factors — We may not be successful in protecting our intellectual property rights or in avoiding claims that we infringe on the intellectual property rights of others."

We may find it necessary to enforce our patents or other intellectual property rights or defend ourselves against claimed infringement of the rights of others or protect our intellectual property rights from any infringement or economic espionage through litigation, which could result in substantial cost and diversion of our resources. We may suffer legal liabilities and financial and reputational damages if we are found to infringe on product or process technology rights held by others, or find others infringing our process technology. We are not currently involved in any litigation regarding alleged patent infringements.

Our epi wafer and raw material vendors generally indemnify us for losses resulting from any suit or proceedings brought against us involving allegations of infringement of intellectual property rights owing to our use of the epi wafers or raw materials supplied by them.

Manufacturing Quality and Reliability

We believe that our superior product quality and high wafer yields are the foundation for our continued success. Therefore, our Company at all levels is committed to developing, implementing and improving

effective quality control systems. Our quality control programs are designed in compliance with the requirements of the certifications of IATF 16949 (2016 version), ISO 9001 (2015 version), AS 9100D (2016 version) and ANSI ESD S20.20 (2014 version) certifications. As of September 30, 2020, our dedicated quality assurance unit has 184 full-time employees (excluding managers), accounting for approximately 6.1% of our total work force.

We believe that our management experience and our advanced manufacturing process technology and know-how have allowed us to maintain a high standard of manufacturing quality and reliability. Our fabs have a comprehensive set of measurement equipment dedicated to wafer quality. We also have implemented a set of standard work flow procedures which we require every fab operator to strictly follow. Our goal is to ensure stringent processing quality control during every stage of the manufacturing process. We provide quality control training to relevant personnel in order to ensure the effective and consistent application of these quality control procedures. We also measure customer satisfaction for quality control purposes. We frequently conduct customer satisfaction surveys. We use the number of customer returns per month and the number of customer complaints per month as two key performance indicators to assess our product quality. Together, these measures make up a comprehensive quality management system that enables us to provide our customers with on-time, reliable, and consistently high quality products.

Furthermore, our customers from time to time perform on-site fab audits as part of the product and production line qualification process. These audits focus on various aspects ranging from supplier and material control and the manufacturing process to customer support in connection with our management systems for the procurement process, document control, resource planning, training and certification, and calibration. Through the audits, we pursue the goal of achieving the highest customer satisfaction and creating a win-win situation for our customers and our Company.

Competition

The markets for our foundry service and products are intensely competitive and are characterized by rapid technological changes and short product life cycles. We compete internationally and domestically with dedicated III-V compound foundry service providers, as well as with IDMs that devote a significant portion of their manufacturing capacity to foundry operations. We compete on the basis of technology, manufacturing capacity, product quality and value-added customer circuitry design service. Our key competitors are mainly GaAs foundry players, including Advanced Wireless Semiconductor Company, Global Communication Semiconductors, LLC and Wavetek Microelectronics Corporation.

Employees

Substantially all of our employees are based in Taiwan. Approximately 85.0%, 84.8%, 83.0% and 78.4% of the employees of our Company (without any subsidiary) have bachelors' or other postgraduate degrees as of December 31, 2017, 2018 and 2019 and September 30, 2020, respectively.

The following table sets forth the number of the employees of our Company (without any subsidiary) by function as of the dates indicated:

	As of	As of September 30,			
Function	2017	2018	2019	2020	
Manager	266	311	333	342	
Production ⁽¹⁾	1,220	1,322	1,415	1,456	
Engineering ⁽¹⁾	737	766	803	849	
R&D ⁽¹⁾	143	160	127	146	
Administrative ⁽¹⁾	169	205	232	247	
Total	2,535	2,764	2,910	3,040	

⁽¹⁾ Excluding managers.

The total number of employees of our subsidiaries were 137, 252, 331 and 526 as of December 31, 2017, 2018 and 2019 and September 30, 2020, respectively. As of September 30, 2020, most of our employees at

subsidiary level are employed by Chainwin Cayman and its subsidiaries, the primary business of which is the development of hog farming technologies.

We believe in and emphasize training of our employees. We believe that, in order to maintain and improve technical competence, quality control, manufacturing efficiency and workplace safety, it is important that our employees receive continuing training in these areas. In 2019, each of our employee received an average of 9.3 hours of training.

Our employees in Taiwan are not covered by any collective bargaining agreements. We have not experienced any strikes or work stoppages. We consider our relationship with our employees to be good.

We maintain an employee noncontributory defined benefit pension plan for our employees hired before July 1, 2005 in accordance with the ROC Labor Standards Law ("Old Scheme"). To meet our obligations under the ROC Labor Standards Law, we have set up a pension fund and contribute at least 2% of the total salary and wages paid per month to the fund, for which the Bank of Taiwan acts as trustee. Any insufficiency is also required to be funded by us. Employees who is eligible for Old Scheme may elect to join a new pension plan under the ROC Labor Pension Act. Such option has expired on July 1, 2010 and the Old Scheme will continue to apply to those employees who failed to made such transfer election.

Under the ROC Labor Pension Act, each of our employees who is eligible under this Act including any resident of the ROC has an individual pension account with the Labor Insurance Bureau. With this individual account, even if his or her employment with us is terminated, he or she may continue to build up his or her retirement savings with a new employer. All employers under the ROC Labor Pension Act are required to deposit a minimum of 6% of an employee's monthly salary into his or her pension account.

Our employees also participate in our profits in multiple ways. Employees may receive incentives in cash bonuses. The aggregate amount of these bonuses is determined based on our performance and is divided among the employees of each department based upon their individual performance. We also are required under ROC law to establish an employee welfare fund, into which, among other ways of contribution, we deposit, on a monthly basis, 0.05% to 0.15% of our net revenue. Under ROC law, our employees also could subscribe to our company's Shares when we conduct a share offering to the public. In addition, we may, subject to shareholders' approval, distribute any remaining accumulated retained earnings as employee bonuses. Pursuant to our amended Articles of Incorporation as of June 14, 2019, 10% of the balance of annual net income after paying all outstanding taxes and deducting accumulated deficit, is first set aside as a legal reserve until the legal reserve reaches an amount equal to at least 100% of our paid-in share capital. Of the remaining balance of the earnings, our Board of Directors will decide, subject to shareholders' approval, the total stockholders' dividends. The total stockholders' dividends will be further appropriated as follows: (A) 5% to 10% as employees bonuses, (B) no more than 3% as directors' remuneration and (C) the remaining balance, excluding (A) and (B), will be distributed to stockholders as dividends of which cash dividends should not be lower than 10% of the total stockholders' dividends. We have issued a restricted employee share plan in 2018.

Properties

We operate our three 6-inch wafer fabs in Guishan District, Taoyuan City. We own all the land on which our current fabs are located.

We also own another parcel of land and buildings in Xinpu Town, Hsinchu County, with a floor area of approximately 40,079.35 square metres, which is currently in lease.

The following table sets forth certain information relating to our fabs as of September 30, 2020:

Fab	Site	Substrate size	Capacity (wafer output per month)	Approx. floor area (sq. m.)	Leased or owned
A	Hwaya Technology Park	6 inch	10,000	10,585.28	Self-Owned
В	Hwaya Technology Park	6 inch	14,000	24,524.98	Self-Owned
C	Guishan Industrial Park	6 inch	17,000	76,476.82	Self-Owned

Our corporate headquarters are located in Hwaya Technology Park, Guishan District, Taoyuan City, Taiwan. This location also comprises our R&D and engineering centers, as well as offices for sales and marketing, operations and general administration.

Insurance and Risk Management

We believe our insurance policies are in line with customary industry practice in our industry for our manufacturing facilities, buildings, machinery and inventories and covering property damage and damage due to fire, earthquakes, floods, and other natural and accidental perils. Our property insurance covers replacement costs for our assets. We believe that our insurance coverage is one of the most comprehensive and represents the highest standard in the technology industry. However, any uninsured occurrence of business disruption, litigation or natural disaster, or significant damages to our uninsured equipment or facilities could have a material adverse effect on our results of operations, and we cannot assure you that our insurance coverage will be sufficient to cover our losses.

We also maintain various other insurance coverage, including commercial general liability insurance, director and officer liability insurance, employee group insurance and travel insurance, marine cargo open policies and erection all risks insurance, providing coverage for risks during the shipment of goods and equipment as well as during equipment installation at our fabs.

We have an environmental, safety and health department that develops plans for properly handling emergencies and disasters, such as earthquakes, floods, fires, power outages, typhoons and chemical leaks that could affect our operations. This department focuses on loss prevention, emergency response, crisis management, evacuation procedures and business recovery. In addition, we have retained a third-party contractor to assist us in our risk management efforts. Since January 1, 2017, we did not have any material insurance claims.

Environmental, Health and Safety Regulation

Semiconductor fabs generate gaseous chemical waste, liquid waste, waste water and other industrial waste in various stages of the manufacturing process. Some of this waste is toxic. We have installed pollution control equipment for the treatment of gaseous chemical waste and liquid waste. Our waste water is processed through our pre-treatment system and then collected and processed by the industrial parks where our fabs are located. Our operations are subject to regulation and periodic monitoring by the ROC Environmental Protection Administration and local environmental protection authorities.

We believe that we have adopted pollution control measures for the effective maintenance of environmental protection standards consistent with the practice of the semiconductor industry in Taiwan. We also believe that we are in compliance in all material respects with all environmental laws and regulations applicable to our operations.

Each of our sites has been certified as meeting the ISO 14001 environmental management system standards and ISO 45001 occupational health and safety standards. The ISO 14001 environmental management system standards are part of a comprehensive series of quality standards for environmental management published by the ISO. The ISO 14001 standards cover environmental management principles, systems and supporting techniques. ISO 45001 standards cover international occupational health and safety management system.

Legal Proceedings

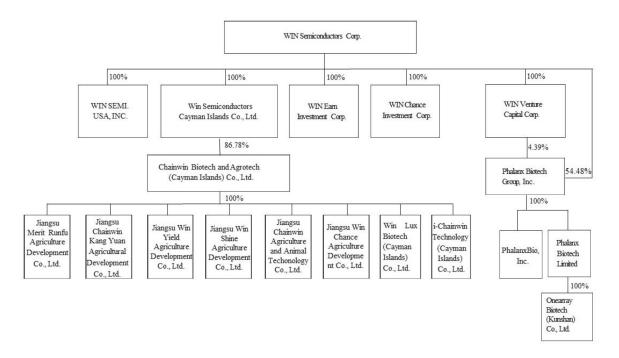
We have from time to time been involved in legal proceedings, complaints, allegations or lawsuits concerning matters arising from our business and operations. Such legal proceedings, complaints, allegations or lawsuit claiming, whether or not have merit, may result in our expenditure of significant financial and management resources, injunctions against us or payment of damages. The outcome of any claims, investigations and proceedings is inherently uncertain, and in any event defending against these claims could be both costly and time-consuming. These risks may be amplified by the increase in the number of third parties whose sole or primary business is to assert such claims. See "Risk Factors" for more information about risks associated with legal proceedings.

As of the date of this offering memorandum, we are not involved in any material legal, arbitral or administrative proceedings, and we are not aware of any material pending or threatened legal, arbitral or administrative proceedings against us, which could have a material adverse effect on our operations or financial condition.

SUBSIDIARIES AND AFFILIATES

Corporate structure

The following diagram illustrates our corporate structure as of September 30, 2020:



Subsidiaries and affiliates

In order to strengthen our industry leading position in the III-V compound foundry business as well as broaden our exposure to other emerging technologies and industries with promising potentials such as photovoltaic solar cells and green energy, we made equity investments in several companies.

The following table sets forth certain information in relation to our subsidiaries and affiliates as of September 30, 2020:

Name of subsidiary/ affiliate	Main business of subsidiary/affiliate	Date of incorporation	Place of Registration	Paid-in capital	Total aggregate shareholdings ⁽¹⁾ (percentage)
WIN SEMI. USA, INC	Marketing	October 2000	California, USA	USD 312 thousand	100%
Win Semiconductors Cayman Islands Co., Ltd	Investment activities	September 2007	Cayman Islands	USD 217,000 thousand	100%
WIN Venture Capital Corp	Investment activities	April 2014	Taiwan, ROC	NTD 500,000 thousand	100%
WIN Earn Investment Corp	Investment activities	November 2019	Taiwan, ROC	NTD 290,000 thousand	100%
WIN Chance Investment Corp	Investment activities	November 2019	Taiwan, ROC	NTD 290,000 thousand	100%
Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd	Investment activities	January 2010	Cayman Islands	USD 126,825 thousand	86.78%
Jiangsu Chainwin Kang Yuan Agricultural Development Co., Ltd	Developing hog farming technology and trading	March 2012	Jiangsu, China	RMB 380,074 thousand	86.78%
Jiangsu Chainwin Agriculture and Animal Technology Co., Ltd	Farm feed development and trading	November 2016	Jiangsu, China	USD 30,790 thousand	86.78%

Jiangsu Win Yield Agriculture Development Co., Ltd	Developing hog farming technology and trading	March 2019	Jiangsu, China	USD 20,000 thousand	86.78%
Jiangsu Win Shine Agriculture Development Co., Ltd	Logistics management service	April 2019	Jiangsu, China	USD 1,000 thousand	86.78%
Jiangsu Merit Runfu Agriculture Development Co., Ltd	Developing hog farming technology and trading	March 2012	Jiangsu, China	RMB 16,177 thousand	86.78%
Jiangsu Win Chance Agriculture Development Co., Ltd	Developing hog farming technology and trading	January 2016	Jiangsu, China	USD 15,200 thousand	86.78%
Win Lux Biotech (Cayman Islands) Co., Ltd	Investment activities	April 2020	Cayman Islands	USD 500 thousand	86.78%
i-Chainwin Technology (Cayman Islands) Co., Ltd.	Investment activities	April 2020	Cayman Islands	USD6,500 thousand	86.78%
Phalanx Biotech Group, Inc	Researching, manufacturing and selling of high density gene chips and testing service	June 2002	Taiwan, ROC	NTD 819,600 thousand	58.87%
PhalanxBio, Inc	Selling of high- density gene chips and testing service	April 2004	California, USA	USD 4,075 thousand	58.87%
Phalanx Biotech Limited	Investment activities	August 2011	Hong Kong	USD 300 thousand	58.87%
Onearray Biotechn (Kunshan) Co., Ltd	Selling of high- density gene chips and testing service	March 2012	Jiangsu, China	RMB 1,898 thousand	58.87%

⁽¹⁾ Our direct and/or indirect shareholding as of September 30, 2020.

MANAGEMENT

Directors

The ROC Company Act and our Articles of Incorporation provide that our Board of Directors is elected by the shareholders and is responsible for the management of our business. The election of our Directors by our shareholders is conducted by means of cumulative voting pursuant to the ROC Company Act. Our Articles of Incorporation provide that the Board of Directors should consist of seven to nine Directors, among them at least two directors should be independent directors. At present, we have nine Directors (including three independent directors) who are elected by our shareholders at our general shareholders' meeting. The term of office for our Directors is three years.

Under our Articles of Incorporation, our Board of Directors is required to elect a Director to act as Chairman. Our Chairman is our legal representative under the ROC Company Act.

The present Board of Directors was elected by our shareholders on June 14, 2019 for a term of three years.

The name, age and position of each director are set forth below:

Name	Age	Position since	Position	Number of Shares Held ⁽¹⁾	Percentage of Total Shares Issued and Outstanding ⁽²⁾
Chin-Tsai Chen	74	2003	Chairman and		
			President	13,798,321	3.25%
Yu-Chi Wang	53	2008	Vice Chairman	700,000	0.17%
International Fiber Technology					
Co., Ltd	-	1999	Director	3,503,097	0.83%
Ming-Chien Hsieh ⁽³⁾	51	2019	Director		
-			Representative	0	0%
Li-Cheng Yeh	50	2016	Director	8,994,233	2.12%
Wen-Ming Chang	61	2008	Director	292,750	0.07%
Shun-Ping Chen	49	2013	Director	1,897,993	0.45%
Shen-Yi Lee	78	2010(4)	Independent		
			Director	14,000	0.003%
Chin-Shih Lin	65	2017	Independent		
			Director	0	0%
Hai-Ming Chen	69	2019	Independent		
-			Director	5,120	0.001%

⁽¹⁾ Where applicable, the figure also includes the number of Shares held by such person's spouse and minor children as of September 30, 2020.

Set forth below is a biography of each director of our company:

Mr. Chin-Tsai Chen is the Chairman of our Board and our President. Mr. Chen obtained a master's degree in public administration from University of San Francisco, the United States and a master's degree in accounting from Tamkang University, Taiwan. Other than our subsidiaries, Mr. Chen also serves as the chairman in ITEQ Corporation and its 13 wholly-owned subsidiaries, vice chairman of the board in HIWIN Technologies Corp., independent director in Tong Hsing Electronic Ind, Ltd. and Kinsus Interconnect Technology Corp., as well as director in Taipei Financial Center Corp. and Mercuries Life Insurance Co., Ltd.

Mr. Yu-Chi Wang is the Vice Chairman of our Board. Mr. Wang holds a Ph.D. of material engineering from Rutgers, State University of New Jersey, the United States. Mr. Wang is also the chairman of Technology Development Strategy Committee of our Company. Prior to becoming the Vice Chairman of our Board, Mr.

⁽²⁾ Calculated by dividing the number of Shares held by such person and such person's spouse and minor children by the number of total issued and outstanding Shares as of September 30, 2020.

⁽³⁾ As a representative of International Fiber Technology Co., Ltd.

⁽⁴⁾ Independent Director, Shen-Yi Lee, was not the Company's director during the period from June 10, 2013 to June 9, 2016.

Wang used to serve as our Chief Executive Officer. Prior to joining us, Mr. Wang used to serve as a researcher at Bell Labs.

Mr. Ming-Chien Hsieh is a representative of International Fiber Technology Co. Ltd., which is our Director and one of the shareholders of the Company. Mr. Hsieh also serves as the chairman of the board of Kuo Chang Investment Enterprise Co., Ltd. Mr. Hsieh obtained a bachelor's degree in architecture from National Cheng Kung University, Taiwan and a master's degree in science of finance, Golden Gate University, the United States.

Mr. Li-Cheng Yeh is one of our Directors. He is also the chairman of three other companies, vice chairman of Royal Base Corporation, supervisor of Inventec Besta Co., Ltd., as well as director of four other companies, including Inventec Corporation, Inventec Appliances Corporation, AIMobile Co., Ltd. and Inventec Solar Energy Corporation. Mr. Yeh obtained a master's degree in computer science from Pace University, the United States.

Mr. Wen-Ming Chang is one of our Directors and the Business Unit General Manager of our Company. Mr. Chang is also an independent director in Giga Solar Materials Corp. Mr. Chang holds a Ph.D. in chemical engineering from Clemson University, the United States. Prior to joining us, Mr. Chang used to serve as general manager of Huga Optotech Inc.

Mr. Shun-Ping Chen is one of our Directors, our general manager of Corporate Administration and the chairman of Corporate Social Responsibility Committee of the Company. Mr. Chen also serves as an independent director of Wei Chuan Foods Corp., supervisor of CDIB CME Fund Ltd. and NFC I Renewable Power Co., Ltd., as well as director of New Future Capital Co., Ltd. and Gogolook Co., Ltd. Mr. Chen holds a master's degree in business administration from Rutgers University, the United States. Mr. Shun-Ping Chen is Mr. Chin-Tsai Chen's son.

Mr. Shen-Yi Lee is one of our Independent Directors and a member of our Compensation Committee. Mr. Lee is also an independent director of Capital Securities Corporation, supervisor of Chinese Culture University and Taoyuan International Airport Services Co., Ltd., as well as director of three other companies. Mr. Lee holds a Ph.D. in law from Chinese Culture University, Taiwan.

Mr. Chin-Shih Lin is one of our Independent Directors and a member of our Compensation Committee as well as the chairman of our Audit Committee. Mr. Lin is also an independent director in Namchow Holdings Co., Ltd. and a director in Prolific Technology Inc. Mr. Lin holds a master degree in accounting, Tamkang University, Taiwan. Mr. Lin is also a Certified Public Accountant.

Ms. Hai-Ming Chen is one of our Independent Directors and the chairman of our Compensation Committee. Ms. Chen also serves as an independent director of Tecom Co., Ltd. Ms. Chen is an emeritus professor of Tamkang University, Taiwan. Ms. Chen obtained her Ph.D. from National Chiao Tung University, Taiwan.

The business address of each of the directors indicated above for the purposes of this offering is our principal executive office at No.69, Keji 7th Road, Hwaya Technology Park, Guishan District, Taoyuan City, Taiwan.

Senior Management

The name, age and position of our senior management are set forth below:

Name	Age	Position since	Position	Number of Shares Held ⁽¹⁾	Percentage of Total Shares Issued and Outstanding ⁽²⁾
Chin-Tsai Chen	74	2011	Chairman and President Chairman of Technology	13,798,321	3.25%
Yu-Chi Wang	53	2010	Development Strategy Committee	700,000	0.17%

			Chief Executive		
Kyle Chen	59	2010	Officer	175,176	0.04%
			Business Unit General		
Wen-Ming Chang	61	2007	Manager	292,750	0.07%
			General Manager of		
			Corporate		
Shun-Ping Chen	49	2010	Administration	1,897,993	0.45%
Brian Lee	60	2010	Vice President	384,330	0.09%
Lap-Sum Yip	56	2016	Vice President	59,516	0.01%
Eric Hsu	56	2018	Vice President	200,000	0.05%
HP Hsiao	55	2018	Vice President	33,638	0.01%
S.Y. Wang	54	2005	Vice President	190,000	0.04%
			Chief Officer of		
			Corporate Governance		
			and Associate Vice		
Annie Yu	57	2005	President	14,202	0.003%
			Associate Vice		
			President of		
Linna Su	61	2010	Accounting Division	83,706	0.02%
			Associate Vice		
			President of Finance		
Joe Tsen	57	2010	Division	319,834	0.08%

⁽¹⁾ Where applicable, the figure also includes the number of Shares held by such person's spouse and minor children as of September 30, 2020.

Set forth below is a short biography of each of our senior management (who are not already described above):

Mr. Kyle Chen is our Chief Executive Officer. Mr. Chen holds an executive master of business administration from National Taiwan University, Taiwan. He also serves as the chief executive officer of WIN SEMI. USA, INC., our wholly-own subsidiary. Prior to joining us, Mr. Chen used to serve as a fab director of MXIC. He joined the Company since 2009 and has over 30 years of experience in the semiconductor industry.

Mr. Brian Lee is our Vice President. Mr. Lee holds a master's degree from University of Southern California, the United States. Prior to joining us, Mr. Lee was the operation manager of United Microelectronics Corporation. He joined the Company since 2007 and is currently responsible for the sales of our optoelectronic device products, business development, analysis and forecast and customer service.

Mr. Lap-Sum Yip is our Vice President. Mr. Yip holds a Ph.D. in electrical engineering from McGill University, Canada. Prior to joining us, Mr. Yip used to serve as R&D engineer and project manager at CIS Scientific Lab, focusing on application of compound semiconductor materials. Mr. Yip joined the Company since 2000 and has worked in the departments of R&D, backside processing and customer engineering. Mr. Yip has over 30 years of experience in the semiconductor industry.

Mr. Eric Hsu is our Vice President. Mr. Hsu holds a master's degree in material science and engineering, National Tsing Hua University, Taiwan. Prior to joining us, Mr. Hsu used to serve as a manager of United Microelectronics Corporation. Mr. Hsu also serves as the director of Nan Ya Food Industrial Corp. Mr. Hsu joined the Company since 2000 and has worked in the departments of engineering, manufacturing as well as the fab director. Mr. Hsu has over 30 years of experience in the semiconductor industry.

Mr. HP Hsiao is our Vice President. Mr. Hsiao holds a Ph.D. in optics and photonics, National Central University, Taiwan. Prior to joining us, Mr. Hsiao used to serve as a director of Technology Development of Inforcomm Semiconductor Corporation. Mr. Hsiao joined the Company since 2010 and has served as chief technology officer of optoelectronic device development business unit. Mr. Hsiao has over 20 years of experience in semiconductor industry for optoelectronics.

Mr. S.Y. Wang is our Vice President. Mr. Wang holds a master's degree from the Department of Industrial Engineering and Engineering Management of National Tsing Hua University, Taiwan. Prior to joining us,

⁽²⁾ Calculated by dividing the number of Shares held by such person and such person's spouse and minor children by the number of total issued and outstanding Shares as of September 30, 2020.

Mr. Wang used to serve as a manager of MXIC. Mr. Wang is currently assisting our Chief Executive Officer to enhance our operation and management efficiency.

Ms. Linna Su is our Associate Vice President of Accounting Division. Ms. Su graduated from the Department of Accounting of Soochow University, Taiwan.

Mr. Joe Tsen is our Associate Vice President of Finance Division. Mr. Tsen is also the chief financial officer of WIN SEMI. USA, INC., our wholly-own subsidiary, director of Chainwin Cayman, and supervisor of 11 subsidiaries and affiliates of Chainwin Cayman. Mr. Tsen holds a master's degree in finance and management from Baruch College, City University of New York, the United States.

The business address of each of the senior management indicated above for the purposes of this offering is our principal executive office at No.69, Keji 7th Road, Hwaya Technology Park, Guishan District, Taoyuan City, Taiwan.

Audit Committee

We have an audit committee composing of our three directors and it is responsible for implementing the powers and functions of supervisors required by relevant laws and regulations, including but not limited to, investigation of our business and financial condition. Our audit committee currently consists of Mr. Shen-Yi Lee, Mr. Chin-Shih Lin and Ms. Hai-Ming Chen.

Mr. Lin is the chairman of our audit committee. In 2018 and 2019, our audit committee held eight meetings and seven meetings, respectively.

Compensation Committee

Our compensation committee consists of Mr. Shen-Yi Lee, Mr. Chin-Shih Lin, Ms. Hai-Ming Chen, Mr. Wei-Lin Wang and Ms. Wei-Kang Pan. Ms. Chen is the chairman of our compensation committee. Three out of five of our compensation committee members are independent directors. Our compensation committee is responsible for prescribing and periodically reviewing the performance review and remuneration policy, system, standards, and structure for directors and managerial officers. Our compensation committee is also responsible for periodically evaluating and prescribing the remuneration of directors and managerial officers.

Compensation and Share Ownership

The aggregate remuneration paid and benefits in kind granted by us to our Directors in their capacity as such for the year ended December 31, 2017, 2018 and 2019 was NT\$89.81 million, NT\$74.52 million and NT\$107.15 million (US\$3.70 million), respectively.

The aggregate remuneration paid and benefits in kind granted by us to our presidents and vice presidents in their capacity as such for the year ended December 31, 2017, 2018 and 2019 was NT\$286.18 million, NT\$282.73 million and NT\$390.41 million (US\$13.49 million), respectively

There are no outstanding loans granted by us or any of our subsidiaries to any of the members of the Board or executive officers, and there are no outstanding guarantees provided by us or any of our subsidiaries for the benefit of any of our Directors or executive officers.

Neither we nor any of our subsidiaries had made any loans or advances or guarantees in relation to loans or advances received by our Directors and executive officers, and none of our Directors and executive officers has or has had interests in transactions which are or were unusual in their nature or conditions or significant in relation to our business or any of our subsidiaries' business during the current fiscal year or the fiscal year immediately preceding the date of this offering memorandum, or during earlier fiscal years and remain, in any respect, outstanding or unperformed.

We have not made any loans or other outstanding credits (including guarantees) to any of our Directors or executive officers except in the ordinary course of business. We have not entered into any transactions with

our Directors or executive officers which are unusual in their nature or conditions during the last fiscal year and the current fiscal year.			

RELATED PARTY TRANSACTIONS

We have from time to time engaged in a variety of transactions with our related parties. For more details, see Note 7 to our consolidated financial statements as of and for the years ended December 31, 2017, 2018 and 2019 and the nine months ended September 2020.

Our policy on transactions with related parties is that such transactions shall be conducted on terms substantially as favourable to us as would be obtainable at the time in a comparable arm's length transaction with a person other than a related party.

Significant transactions

The following summary of significant transactions with related parties for the years ended December 31, 2017, 2018 and 2019 and the nine months ended September 2020 is based on the notes to our Consolidated Financial Statements as of and for the years ended December 31, 2017, 2018 and 2019 and for the nine months ended September 2020 included elsewhere in this offering memorandum:

Loans and Receivables

In June 2017, Chainwin Cayman extended an unsecured loan in an amount of US\$6 million with an interest rate of 4.35% to one of its associates, CM/Chainwin for daily operation. As a result, our accounts receivables from related parties were NT\$182.25 million as of December 31, 2017. The loan had been repaid in full by February 2018. The amount of interest revenue arising from the loan was US\$124,000 and US\$30,000 for 2017 and 2018, respectively. Such interest had been received by Chainwin Cayman.

Purchases

We also purchased a small amount of goods and services from related companies in 2018 and 2019.

Guarantee

In March 2018, Chainwin Cayman had provided a guarantee for bank loans amounting to US\$7,350,000 to one of its associates, CM/Chainwin, accounting for 49% of the total principal amount. All shareholders of CM/Chainwin provided guarantees in proportion to their shareholding percentages. The loan proceeds had been used for daily operation and as of September 30, 2020, the outstanding loan balance was US\$6.83 million.

Property Transaction

Chainwin Cayman made prepayment to its related parties in amounts of NT\$21.62 million and NT\$15.78 million in 2018 and 2019, respectively, due to property transactions. In addition, in 2019, Chainwin Cayman purchased property, plant and equipment from its related parties, amounting to NT\$15.68 million.

Lease

We leased the office and factories to ITEQ Corporation, which became our related party since July 2019. The amount of rent income from the related party is NT\$14.42 million for the year ended December 31, 2019, which had been received.

Key management compensation

See "Management — Compensation and Share Ownership."

MAJOR SHAREHOLDERS

The following table sets forth information with respect to the Shares owned by each of our ten largest shareholders or the major shareholders as of July 3, 2020 (the date of our latest share register) and the Shares owned by all of our Directors and executive officers as a group as of September 30, 2020. As of July 3, 2020 and September 30, 2020, the total number of our issued and outstanding Shares were both 424,056,384. This information does not include any subsequent changes in shareholdings by our major shareholders or our Directors and executive officers as a group.

	As of July 3, 2020	
Name of Shareholder	Number of Directly Owned Shares	Percentage of Total Issued Shareholder and Outstanding Shares
Tien Ho Industrial Co., Ltd	21,706,330	5.12%
CTBC Bank in Custody for Avago Technologies Sales Pte Limited	20,000,000	4.72%
Kou-I Yeh	16,705,214	3.94%
Chin-Tsai Chen	12,752,953	3.01%
Standard Chartered in Custody for Next Generation Connectivity Fund	12,606,000	2.97%
Labor Pension Fund (New Scheme)	8,938,000	2.11%
CTBC Bank in Custody for WIN Semiconductors Corp. Employees Stock		
Ownership Trust	8,203,698	1.94%
Li-Chuan Yeh	7,687,525	1.81%
Li-Cheng Yeh	7,687,525	1.81%
JPMorgan Chase Bank N.A., Taipei Branch in Custody for Vanguard Total		
International Stock Index Fund, a series of Vanguard Star Funds	6,913,163	1.63%
	As of September 30, 2020	
	Number of Directly	Percentage of Total Issued Shareholder and Outstanding
Name of Shareholder	Owned Shares ⁽¹⁾	Shares
Directors and executive officers as a group	30,665,916	7.23%

⁽¹⁾ Where applicable, the figure also includes the number of Shares held by such person's spouse and minor children.

The information regarding ownership of our Shares provided above is based on information provided to us by our shareholders. Because we do not independently verify this information, we cannot assure you that it is correct or that our major shareholders do not own more of our Shares.

None of our major shareholders has different voting rights from those of the other shareholders.

DESCRIPTION OF THE BONDS

The Bonds are to be issued under an indenture, to be dated as of January 14, 2021 (the "Indenture"), between WIN Semiconductors Corp. (the "Issuer" or the "Company") and The Bank of New York Mellon, London Branch, in its capacity as trustee (the "Trustee"). The following summary of certain provisions of the Bonds and the Indenture does not purport to be complete and is subject to, and is qualified in its entirety by reference to, the provisions of the Bonds and Indenture, including the definitions of certain terms therein. Whenever particular Sections or defined terms of the Indenture not otherwise defined herein are referred to, such Sections or defined terms are incorporated herein by reference. Copies of the Indenture will be available for inspection by any Holder (as defined below) on or after the Closing Date (as defined below) at the office of the Trustee on any weekday (excluding public holidays) during normal office hours (being between 9.00 a.m. and 3.00 p.m. (London time)) upon prior written request and satisfactory proof of holding.

General

Except in certain limited circumstances, the Bonds will only be issued in book-entry form.

The Bonds will be issued on or about January 14, 2021 (the "Closing Date") as direct, unconditional, unsecured and unsubordinated obligations of the Issuer limited in aggregate principal amount to US\$500,000,000 and will be redeemed on January 14, 2026 (the "Maturity Date") unless earlier redeemed, repurchased and canceled or converted pursuant to the terms thereof and of the Indenture.

The Bonds will not bear interest.

Each Bond will be convertible into the Common Shares (as defined below), subject to compliance with certain conditions and procedures (see "— Conversion — Procedures; Conversion Notice; Taxes and Duties" below), at the Holder's election on any Business Day (as defined below) during the period (the "Conversion Period") commencing on April 15, 2021 (the next day immediately after the end of a three-month period following the Closing Date) and ending at the close of business in the location of the applicable Agent (as defined below) on (i) January 4, 2026 (the 10th day prior to the Maturity Date) or (ii) the fifth (5th) Business Day prior to the applicable Purchase Date of such Bonds or date fixed for redemption (other than the Maturity Date) of such Bond pursuant to a notice of redemption given by the Issuer in accordance with the provisions of the Indenture. The Conversion Period shall not include any Closed Period (as defined below).

The principal of and other amounts on the Bonds will be payable in US Dollars by the Issuer pursuant to the Indenture, and the Bonds may be presented for registration of transfer or conversion, at the office or agency of the Issuer maintained for such purpose located at One Canada Square, London E14 5AL, United Kingdom (being the office of The Bank of New York Mellon, London Branch acting as the Trustee under the Indenture, as paying agent (the "Paying Agent") and as conversion agent (the "Conversion Agent") with regard to the Bonds).

The Issuer reserves the right, subject to the provisions of the Indenture and the applicable Paying Agent and Registrar Appointment Letter, at any time to vary or terminate the appointment of any Paying Agent and to appoint further or other Paying Agents. Notice of any such termination or appointment and of any changes in the specified offices of the Paying Agents will be given promptly by the Issuer to the Holders (and other applicable parties) in accordance with the notice provisions of the Indenture as described below under "—Notices".

The Bonds will be issued only in fully registered form, without interest coupons, in denominations of US\$200,000 per Bond or in any integral multiples thereof. See "— Book Entry; Delivery and Form" below. No service charge will be payable for any registration of transfer or exchange of the Bonds, for the conversion thereof or for the charges of the Paying Agents in connection therewith, but the Issuer may require payment by a Holder of a sum sufficient to cover any transfer or stamp tax or other similar governmental charge payable in connection therewith.

The Issuer and its Affiliates (as defined below) may at any time, subject to applicable law, purchase the Bonds in the open market, or otherwise, at any price. The Bonds which are purchased by the Issuer (including purchase in the open market), early redeemed, repurchased and repaid when due, converted or sold back by the Holders will be canceled and will not be re-issued. A Bond does not cease to be outstanding because any of the Issuer's Affiliates holds such Bond; *provided, however*, any Bonds owned by any Affiliate of the Issuer will be deemed not to be outstanding in determining whether the Holders of the requisite principal amount of Bonds have given or concurred in any request, demand, authorization, direction, notice, consent or waiver under the Indenture.

Book Entry; Delivery and Form

The Bonds will only be represented by a global certificate in fully registered book-entry form (the "Global Bond") and will be deposited with a common depositary (the "Common Depositary") for Euroclear Bank SA/NV ("Euroclear") and Clearstream Banking S.A. ("Clearstream") and registered in the name of a nominee of the Common Depositary. If (i) at any time, the Common Depositary advises the Issuer in writing that it is unwilling or unable to continue as a depository for the Global Bond and a successor depository is not appointed by the Issuer within 90 days, (ii) either Euroclear or Clearstream or any alternative clearing system on behalf of which the Bonds evidenced by the Global Bond may be held is closed for business for a continuous period of 14 days (other than by reason of holidays, statutory or otherwise) or announces an intention permanently to cease business or in fact does so, or (iii) an Event of Default has occurred with respect to the Bonds and the Trustee notifies the Issuer in writing that any of the Bonds have become immediately due and payable pursuant to the Indenture, the Issuer shall issue individual certificated bonds in registered form in exchange for the Global Bond in any authorized denominations and in an aggregate principal amount equal to the principal amount of the Global Bond. The Bonds will have minimum denominations of US\$200,000 or in any integral multiples thereof.

The Bonds are not issuable in bearer form.

Ranking

The Bonds will (i) be direct, unconditional, unsecured and unsubordinated obligations of the Issuer, (ii) rank pari passu without any preference or priority among themselves and with all other direct, unconditional, unsecured and unsubordinated Debt (as defined below) of the Issuer now or hereafter outstanding (except to the extent that such other Debt (x) ranks above such obligation solely by reason of Liens (as defined below) permitted under the Indenture or (y) is preferred by mandatory provisions of law), and (iii) be senior in right of payment to all Debts of the Issuer that is expressed to be subordinated in right of payment to the Bonds.

The Bonds will be effectively subordinated to all secured obligations but subject to the negative pledge as described in "Certain Covenants — Negative Pledge" of the Issuer with respect to claims against the assets securing such obligations ("Secured Debt"). As of September 30, 2020, the Issuer had outstanding Secured Debt of NT\$3,463.6 million (US\$119.6 million).

Sinking Fund

The Bonds will not be entitled to the benefit of a sinking fund.

Transfer of Certificated Bonds and Delivery of New Certificated Bonds

In the event Certificated Bonds are issued, the following provisions will apply:

(i) Transfer of Certificated Bonds

A Certificated Bond may be transferred upon the surrender at the office of the Trustee or at the office of any transfer agent, together with the form of transfer endorsed thereon (the "Form of Transfer") duly completed and executed and any other evidence that such transfer agent or the registrar may reasonably require. In the case of a transfer of only part of a holding of Certificated Bonds, a new Certificated Bond shall be issued to

the transferee in respect of the part transferred and a further new Certificated Bond in respect of the balance of the holding not transferred shall be issued to the transferor.

(ii) Delivery of New Certificated Bonds

Each new Certificated Bond shall be available for delivery upon receipt by the transfer agent at its specified office of the relevant Certificated Bond and the Form of Transfer. Delivery of the new Certificated Bonds shall be made at the specified office of such transfer agent to whom the relevant Certificated Bond and the Form of Transfer shall have been surrendered or delivered or, at the option of the Holder making such delivery or surrender as aforesaid and as specified in the relevant Form of Transfer or otherwise in writing, be sent by uninsured post at the risk of the Holder entitled to the new Certificated Bond to such address as may be so specified, unless such Holder requests otherwise and pays in advance to the relevant transfer agent the costs of such other method of delivery and/or such insurance as it may specify.

(iii) Formalities Free from Charge

Transfers of the Certificated Bonds will be effected without charge by or on behalf of the Issuer, but only upon confirmation of payment (or the giving of such indemnity and/or security and/or pre-funding as such transfer agent may require in respect) of any tax or other governmental charges which may be imposed in relation thereto.

(iv) Restricted Transfer Periods

No Holder may require the transfer of a Certificated Bond to be registered (i) during the period of 15 days preceding a Redemption Date, (ii) after such Bond has been selected by the Issuer or the Holder for redemption, pursuant to the terms of the Indenture or (iii) after such Holder has exercised its Conversion Right (as defined below).

Payments

All amounts due under, and all claims arising out of or pursuant to, the Bonds and/or the Indenture from or against the Issuer shall be payable and settled in US Dollars only.

Interest

The Bonds will not bear interest.

In any case where the date of the payment of the principal of the Bonds or the date fixed for redemption of the Bonds is not a Business Day (as defined below), then payment of such principal or the Early Redemption Amount (as defined below) shall be made on the next succeeding Business Day, with the same force and effect as if made on the Maturity Date or the date fixed for redemption, as the case may be, and no interest shall accrue for the period after such date.

Additional Amounts

All payments of the principal of and other amounts on the Bonds and all deliveries of Common Shares (as defined below) made on conversion of the Bonds are to be made free and clear of, and without withholding or deduction for, any taxes, duties, assessments or other governmental charges ("Taxes") imposed, levied, collected, withheld or assessed by or within the ROC or any other jurisdiction in which the Issuer is organized or resident for tax purposes or from which any payment on the Bonds is made (or any political subdivision or Taxing Authority (as defined below) thereof or therein), unless such withholding or deduction is required by law or by regulation or governmental policy having the force of law. In the event that any such withholding or deduction is so required, the Issuer will pay such additional amounts on the Bonds (all such additional amounts being referred to herein as "Additional Amounts") as will result in receipt by the Holder of each Bond of such amounts as would have been received by such Holder had no such withholding or deduction been required, except that no Additional Amounts shall be payable for or on account of:

- (i) any Taxes that would not have been imposed but for:
 - (A) the existence of any present or former connection between the Holder of such Bond and the ROC or any other jurisdiction in which the Issuer is organized or resident for tax purposes, other than merely holding such Bond or receiving payments or enforcing rights thereunder, including such Holder being or having been a national, domiciliary or resident of or treated as a resident thereof or being or having been present or engaged in a trade or business therein or having or having had a permanent establishment therein;
 - (B) the presentation of such Bond (if presentation is required) more than 30 days after the later of the date on which the payment of the principal of or other amounts on such Bond became due and payable pursuant to the terms thereof or the date that such payment was made or duly provided for, except to the extent that the Holder thereof would have been entitled to such Additional Amounts if it had presented such Bond for payment on any date within such 30 day period;
 - (C) the failure of the holder or beneficial owner to comply with a timely request from us or any successor, addressed to the Holder, to provide certification, information, documents or other evidence concerning such Holder's or beneficial owner's nationality, residence, identity or connection with the relevant jurisdiction, or to make any declaration or satisfy any other reporting requirement relating to such matters, if and to the extent that due and timely compliance with such request is required by statute, regulation or administrative practice of the relevant jurisdiction in order to reduce or eliminate any withholding or deduction as to which additional amounts would have otherwise been payable; or
 - (D) the presentation of such Bond (if presentation is required) for payment in the ROC, unless such Bond could not have been presented for payment elsewhere;
- (ii) any estate, inheritance, gift, sale, transfer, stamp, personal property or similar tax, assessment or other governmental charge;
- (iii) any tax, duty, assessment or other governmental charge that is payable otherwise than by withholding from payments or deliveries under or with respect to the Bonds;
- (iv) any tax, assessment, withholding or deduction required by sections 1471 through 1474 of the United States Internal Revenue Code of 1986, as amended ("FATCA"), any current or future Treasury Regulations or rulings promulgated thereunder, any law, regulation or other official guidance enacted in any jurisdiction implementing FATCA, any intergovernmental agreement between the United States and any other jurisdiction to implement FATCA or any law enacted by such other jurisdiction to give effect to such agreement, or any agreement with the U.S. Internal Revenue Service under FATCA; or
- (v) any combination of Taxes referred to in the preceding clauses (i), (ii), (iii) and/or (iv).

The Issuer will not pay Additional Amounts if the registered Holder of the Bond is a fiduciary, partnership or person other than the sole beneficial owner of any payment to the extent that the beneficiary, partner or settler with respect to such fiduciary, partnership or person, or the beneficial owner of that payment, would not have been entitled to the Additional Amounts if it had been the registered Holder of the Bonds.

Whenever there is mentioned, in any context, (i) the payment of the principal of and other amounts on any Bond, or (ii) the delivery of Common Shares or cash payments (if any) on conversion of any Bond, such mention shall be deemed to include the payment of Additional Amounts to the extent that, in such context, Additional Amounts are, were or would be payable with respect thereto.

Subject to certain exceptions, the Issuer will pay any present or future stamp, court or documentary taxes, or any other excise or property taxes, charges or similar levies which arise in any jurisdiction from the issue, initial delivery or registration of the Bonds or any other document or instrument referred to herein, including

those resulting from or required to be paid in connection with, the enforcement of the Bonds or any other document or instrument following the occurrence of any Event of Default with respect to the Bonds and excluding those payable upon issue and delivery of Bonds to the order of a person other than a Holder.

Neither the Trustee nor any Agent shall be responsible for paying any Additional Amounts or for determining whether such amounts are payable or the amount thereof, and none of them shall be responsible or liable for any failure by the Issuer, the Holders or any other person to pay such Additional Amounts or be responsible to provide any notice or information in relation to the Bonds in connection with payment of such tax, duty, charges, assessments, withholding or other payment imposed by or in any jurisdiction.

Redemption of the Bonds

Redemption for Taxation Reasons

The Bonds may be redeemed, in whole but not in part (subject to the provision of the paragraph below), at the option of the Issuer, at any time, upon giving not less than 30 nor more than 60 days' written notice to the Holders (which notice shall be irrevocable) and to the Trustee and Agents, at the Settlement Equivalent of the applicable Early Redemption Amount on the Redemption Date (as defined below), if the Issuer determines and certifies to the Trustee in an officer's certificate immediately prior to the giving of such notice that, as a result of any change in, or amendment to the laws (including any regulations or rulings promulgated thereunder) of the ROC or such other jurisdiction in which the Issuer is then organized or resident for tax purposes (or any political subdivision or Taxing Authority thereof or therein), affecting taxation, or any change in official position regarding the application, interpretation or administration of such laws, regulations or rulings (including a holding, judgment or order by a court of competent jurisdiction), which change, amendment, application, interpretation or administration is proposed and becomes effective on or after the Closing Date (or, in the case of any jurisdiction other than the ROC, the date (if later than the Closing Date) on which the Issuer first becomes organized or resident for tax purposes in or subject to such other jurisdiction) with respect to any payment due or to become due on the Bonds, the Issuer is required to pay Additional Amounts in connection therewith and such requirement to pay Additional Amounts cannot be avoided by the taking of reasonable measures by the Issuer; provided that such right cannot be exercised earlier than 45 days prior to the first date on which the Issuer would be obligated to make an Additional Amounts payment with respect to all or substantially all of the outstanding Bonds were a payment then due. Prior to the giving of any such notice of redemption, the Issuer is required to deliver to the Trustee (i) an officer's certificate stating that such change or amendment has occurred, describing the facts related thereto and stating that such requirement cannot be avoided by the Issuer taking reasonable measures and (ii) an opinion of counsel or written advice of a qualified tax expert that the circumstances referred to in the preceding sentence exist as a result of such change, amendment, application, interpretation or administration. The Trustee shall be entitled to accept and rely upon such certificates and opinions described in clauses (i) and (ii) of the preceding sentence as sufficient evidence of the satisfaction of the conditions precedent described above, in which event, the same shall be conclusive and binding on the Holders. The Trustee will not be responsible for any loss occasioned by acting in reliance on such certificate and/or opinion, and is not obligated to investigate or verify any information in such certificate or opinion.

Notwithstanding the foregoing, if the Issuer has given a redemption notice for taxation reasons in accordance with the paragraph above and if the outstanding principal amount of the Bonds at the time when such redemption notice is given is greater than 10% of the aggregate principal amount of the Bonds as of the Closing Date, each Holder of the Bonds will have the right to elect, and the redemption notice will state that each Holder will have the right to elect, that all or a portion of its Bonds should not be redeemed. Upon the exercise of such right by the Holder, the provisions set forth in "— Additional Amounts" will not apply to any payment in respect of such Bonds that is due after the relevant Redemption Date, and such payment will be made subject to the deduction of any ROC tax (or tax of such other jurisdiction in which the Issuer is then organized or resident for tax purposes) required to be withheld or deducted. To exercise such right the Holder must give notice to the Issuer in the manner set out in the Indenture no later than 15 days prior to the relevant Redemption Date.

Redemption at the Option of the Issuer

At any time after January 14, 2024 and prior to the Maturity Date, the Issuer may, on not less than 30 nor more than 60 days' written notice to the Holders (which notice shall be irrevocable) and to the Trustee and the Agents, redeem the Bonds, in whole or in part, at the Settlement Equivalent of the applicable Early Redemption Amount; *provided*, *however*, that no such redemption may be made unless:

- (1) the Closing Price (converted into US Dollars at the Prevailing Rate) of the Common Shares for 20 out of the 30 consecutive Trading Days (the "Calculation Period") immediately prior to the date upon which notice of such redemption was given, is at least 130% of the quotient of the Early Redemption Amount divided by the Conversion Ratio (as defined below) then in effect; and
- (2) the applicable Redemption Date does not fall within a Closed Period (as defined below).

If there shall occur an event giving rise to a change in the Conversion Price during any Calculation Period, appropriate adjustments for the relevant days, determined by an opinion of an Independent Investment Bank, shall be made for the purpose of calculating the Closing Price for such days. Notice of any such adjustments in the Conversion Price will be given promptly by the Issuer to the Trustee and the Agents.

Notwithstanding the foregoing, the Issuer may redeem the Bonds, in whole but not in part, at any time, on not less than 30 nor more than 60 days' notice, at the Settlement Equivalent of the applicable Early Redemption Amount if more than 90% in principal amount of the Bonds originally issued has been redeemed, repurchased and canceled or converted; *provided* that the applicable Redemption Date does not fall within a Closed Period (as defined below).

Notice of any such redemption will be given by the Issuer to the Holders (and other applicable parties) in accordance with the notice provisions of the Indenture as described below under "— Notices".

Redemption at Maturity

Unless the Bonds have been previously redeemed, repurchased and canceled or converted, the Issuer will redeem the Bonds on the Maturity Date at the Settlement Equivalent of a redemption price equal to 95.11% of the outstanding principal amount thereof. The Bonds may be redeemed prior to the Maturity Date only as described herein.

Redemption Procedures

Payment of the relevant redemption price for a Certificated Bond is conditioned upon delivery of such Bond (together with necessary endorsements) to any Paying Agent. Payment of the relevant redemption price for any Bond will be made on the Redemption Date or, if such Bond is a Certificated Bond and has not been so delivered on or prior to the Redemption Date, at the time of delivery of such Bond. If the Paying Agent holds, in accordance with the terms of the Indenture, cash sufficient to pay the relevant redemption price of such Bond on the Redemption Date, then, immediately after such Redemption Date, such Bond will cease to be outstanding, whether or not such Bond is delivered to a Paying Agent, and all other rights of the Holder shall terminate (other than the right to receive the relevant redemption price).

In the case of any redemption other than on the Maturity Date, notice of redemption to each Holder shall specify the outstanding principal amount of each Bond held by such holder to be redeemed, the Redemption Date, the price at which such Bonds will be redeemed and the place or places of payment and that payment will be made upon presentation and surrender of the Bonds to be redeemed. Such notice shall also specify the Conversion Price then in effect and the date on which the right to convert such Bonds or the portions thereof to be redeemed will expire.

Repurchase of the Bonds

Repurchase at the Option of the Holder

Unless the Bonds have been previously redeemed, repurchased and canceled or converted, each Holder shall have the right (the "Holder's Put Right"), at such Holder's option, to require the Issuer to repurchase, in whole or in part (being US\$200,000 in principal amount or any integral multiples thereof), such Holder's Bonds, on January 14, 2024 (the "Bondholder's Put Option Date") at a price equal to the Settlement Equivalent of 97.04% of the principal amount in US Dollars with respect to such Holder's Bonds to be repurchased (the "Holder's Put Price").

Repurchase in the Event of Delisting

In the event that the Common Shares cease to be listed or admitted to trading on the TPEx or that trading in the Common Shares is suspended for 30 consecutive Trading Days (a "Delisting") each Holder shall have the right (the "Delisting Put Right"), at such Holder's option to require the Issuer to repurchase, in whole or in part (being US\$200,000 in principal amount or any integral multiples thereof), such Holder's Bonds on the date set by the Issuer for such repurchase (the "Delisting Put Date"), which shall not be less than 30 nor more than 60 days following the date on which the Trustee sends to each Holder a notice regarding the Delisting referred to under "— Repurchase Procedures" below at the Settlement Equivalent of the applicable Early Redemption Amount with respect to such Holder's Bonds to be repurchased on the Delisting Put Date (the "Delisting Put Price").

Repurchase in the Event of Change of Control

If a Change of Control (as defined below) occurs with respect to the Issuer, each Holder shall have the right (the "Change of Control Put Right"), at such Holder's option, to require the Issuer to repurchase, in whole or in part (being US\$200,000 in principal amount or any integral multiples thereof), such Holder's Bonds on the date set by the Issuer for such repurchase (the "Change of Control Put Date"), which shall be not less than 30 nor more than 60 days following the date on which the Issuer notifies the Trustee, the Paying Agent and the Holders in writing of the Change of Control, at the Settlement Equivalent of the applicable Early Redemption Amount with respect to such Holder's Bonds to be repurchased on the Change of Control Put Date (the "Change of Control Put Price").

Repurchase Procedures

Not less than 30 nor more than 60 days prior to the Bondholder's Put Option Date and not less than 30 nor more than 60 days promptly after becoming aware of a Delisting or Change of Control, the Issuer will provide sufficient information to the Trustee and the Paying Agent in sufficient time (including such notice to be provided to Holders) to permit the Trustee and the Paying Agent to provide to each Holder a notice regarding such Holder's Put Right, Delisting Put Right or Change of Control Put Right, as the case may be, which notice shall state, as appropriate:

- (A) the Bondholder's Put Option Date, the Delisting Put Date or the Change of Control Put Date, as the case may be (each, a "Purchase Date");
- (B) in the case of a Delisting, the date of such Delisting and, briefly, the events causing such Delisting;
- (C) in the case of a Change of Control, the date of such Change of Control and, briefly, the events causing such Change of Control;
- (D) the date by which the Holder Purchase Notice (as defined below) must be given;
- (E) the Holder's Put Price, the Delisting Put Price or the Change of Control Put Price, as the case may be, and the method by which such amount will be paid;

- (F) the names and addresses of all Paying Agents;
- (G) briefly, the Conversion Right (as defined below) of the Holders and the then current Conversion Price and the date on which the right to convert such Bond will expire;
- (H) the procedures that Holders must follow and the requirements that Holders must satisfy in order to exercise their repurchase rights and/or Conversion Right; and
- (I) that a Holder Purchase Notice, once validly given, may not be withdrawn.

To exercise its right to require the Issuer to repurchase its Bonds, the Holder must deliver a written irrevocable notice of the exercise of such right (a "Holder Purchase Notice") to any Paying Agent on any Business Day prior to the close of business at the location of such Paying Agent on such day and which day is not less than ten (10) Business Days prior to the Purchase Date.

Payment of the Holder's Put Price upon exercise of the Holder's Put Right, Delisting Put Price upon exercise of the Delisting Put Right or Change of Control Put Price upon exercise of the Change of Control Put Right for any Certificated Bond for which a Holder Purchase Notice has been delivered is conditioned upon delivery of such Certificated Bond (together with any necessary endorsements) to any Paying Agent on any Business Day together with the delivery of such Holder Purchase Notice and will be made promptly following the later of the Purchase Date and the time of delivery of such Certificated Bond. If the Paying Agent holds on the Purchase Date money sufficient to pay the Holder's Put Price, Delisting Put Price or the Change of Control Put Price, as the case may be, of Bonds for which Holder Purchase Notices have been delivered in accordance with the provisions of the Indenture upon exercise of such right, then, whether or not such Bond is delivered to the Paying Agent, on and after such Purchase Date, (i) such Bond will cease to be outstanding, (ii) such Bond will be deemed paid, and (iii) all other rights of the Holder shall terminate (other than the right to receive the Holder's Put Price, the Delisting Put Price or the Change of Control Put Price, as the case may be).

Certain Definitions

Set forth below is a summary of certain of the defined terms used in the covenants and other provisions of the Indenture. Reference is made to the Indenture for the full definition of all such terms, as well as any other capitalized terms used herein for which no definition is provided.

"Affiliate" means, with respect to any Person (the "Specified Person"), (i) any Person other than the Specified Person directly or indirectly controlling, controlled by or under direct or indirect common control with, the Specified Person or (ii) any Person who is a director or executive officer (A) of the Specified Person, (B) of any Subsidiary of such Specified Person or (C) of any Person described in clause (i) above. For purposes of this definition, the term "control" when used with respect to any Person means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such Person, whether through the ownership of voting securities or by contract or otherwise.

"Agent" means any registrar, paying agent, conversion agent and transfer agent.

"Business Day" means any day except a Saturday, Sunday or other day on which commercial banks in Taipei, Hong Kong, London and the City of New York (or, if applicable, in the city where the relevant Paying Agent is located) are authorized by law to close or are otherwise not open for business.

"Capital Stock" means, with respect to any Person, any and all shares, ownership interests, participation or other equivalents (however designated), including all common stock and all preferred stock, of such Person.

"Certificated Bonds" means the individual certificated Bonds executed and delivered by the Issuer and authenticated by or to the order of the registrar, which may be delivered in exchange for the Global Bond in certain circumstances.

"Change of Control" occurs when:

- (1) any Person or Persons (as defined below) acting together acquires Control of the Issuer if such Person or Persons does not or do not have, and would not be deemed to have, control of the Issuer on the Closing Date;
- (2) the Issuer consolidates with or merges into or sells or transfers all or substantially all of the Issuer's assets to any other Person, unless the consolidation, merger, sale or transfer will not result in the other Person or Persons acquiring Control over the Issuer or any successor entity; or
- (3) one or more other Persons acquire the legal or beneficial ownership of all or substantially all of the Issuer's Capital Stock.

"Closing Price" means for any Trading Day (a) with respect to the Common Shares, the closing price of the Common Shares on the TPEx on such day or, if no reported sales take place on such day, the average of the reported closing bid and offered prices, in either case as reported by the TPEx for such day as furnished by an Independent Investment Bank, and (b) with respect to Capital Stock of the Issuer (other than Common Shares), the closing price for such Capital Stock (other than Common Shares) on the Selected Exchange (as defined under "Trading Day" below); provided that for the purpose of determining the Closing Price used in "— Redemption at the Option of the Issuer" above for all Trading Days on or between the ex-rights or exdividends date and the record date for the determination of the shareholders entitled to receive such rights or dividends, the Closing Price shall be adjusted upwards to include the value of such rights or dividends.

"Common Shares" means shares of the common stock of the Issuer, par value NT\$10.0 per share.

"Control" means (i) the right to appoint and/or remove all or the majority of the members of the Issuer's 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; or (ii) the acquisition or control of more than 50% of the voting rights of the issued share capital of the Issuer.

"Conversion Price" means the initial conversion price of NT\$497.00 per Common Share set forth on the cover of this Offering Memorandum, subject to adjustment in the manner provided in "— Conversion — Adjustments to the Conversion Price" below.

"Conversion Ratio" means the principal amount of each Bond (i.e. US\$200,000) divided by the applicable Conversion Price then in effect (translated into US Dollars at the Fixed Exchange Rate).

"Debt" means, with respect to any Person at any date, without duplication, (i) all obligations of such Person for borrowed money, (ii) all obligations of such Person evidenced by bonds, debentures, notes or other similar instruments, (iii) all obligations of such Person to pay the deferred purchase price of property or services, except trade accounts payable arising in the ordinary course of trading, (iv) all obligations of such Person as lessee which are capitalized in accordance with the generally accepted accounting principles applicable to such Person, (v) all Debt secured by a Lien on any asset of such Person, whether or not such Debt is otherwise an obligation of such Person, (vi) all obligations of such Person to purchase securities or other property that arise out of or in connection with the sale of the same or substantially similar securities or property, (vii) all non-contingent obligations of such Person to reimburse any bank or other Person in respect of amounts paid under a letter of credit or similar instrument and (viii) all Debt of others guaranteed by such Person.

"Default" means any condition or event which, with the giving of notice or lapse of time or both, would become an Event of Default (as defined below).

"Early Redemption Amount" means, for each US\$200,000 in principal amount of the Bonds, the amount calculated in accordance with the following formula, rounded (if necessary) to two decimal places with 0.005 being rounded upwards:

Early Redemption Amount = $I \times (1 + r/2)^{d/180}$

where:

I = Issue price (100 % of principal amount) of the Bonds.

r = -1.00% expressed as a decimal.

d = number of days from, and including, January 14, 2021 to, but excluding, the date for redemption, calculated on the basis of a 360-day year consisting of 12 months of 30 days each, and in the case of an incomplete month, the actual number of days elapsed.

Semi-Annual Date	Early Redemption Amount (in US Dollars)
July 14, 2021	\$199000.00
January 14, 2022	\$198005.00
July 14, 2022	\$197014.98
January 14, 2023	\$196029.90
July 14, 2023	\$195049.75
January 14, 2024	\$194074.50
July 14, 2024	\$193104.13
January 14, 2025	\$192138.61
July 14, 2025	\$191177.92

[&]quot;FSC" means the Financial Supervisory Commission of the ROC.

"Holder", "holder" and "Bondholder" in relation to a Bond means the person in whose name a Bond is registered in the Bond register.

"Independent Investment Bank" means (i) an independent investment bank of international repute or (ii) leading independent securities company or bank in the ROC (in each case of (i) and (ii), acting as an expert) selected by the Issuer at the expense of the Issuer and notified in writing to the Trustee and the Agents.

"Lien" means, with respect to any property or asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind in respect of such property or asset, including, without limitation, the right of a vendor, lessor or similar party under any conditional sales agreement, capital lease or other title retention agreement relating to such property or asset, and any other right of or arrangement with any creditor to have its claims satisfied out of any property or assets, or the proceeds therefrom prior to any general creditor of the owner thereof.

"Market Value" means (i) in the case of Common Shares, the average of the Closing Prices of the Common Shares for the most recent 30 Trading Days, (ii) in the case of Capital Stock (other than Common Shares) which is listed on the Selected Exchange, the average of the Closing Prices of such Capital Stock (other than Common Shares) for the most recent 30 Trading Days and (iii) in the case the market value cannot be determined pursuant to the procedures above, the market value determined by an opinion of an Independent Investment Bank.

"NT Dollars" or "NT\$" means the lawful currency for the time being of the ROC.

"Person" means any individual, company, corporation, firm, partnership, joint venture, undertaking, association, organization, trust, state or agency of a state (in each case whether or not being a separate legal entity), limited liability company, government or political subdivision or agency or instrumentality thereof, or any other entity or organization; provided that in the context of a Change of Control, a Person does not include the Issuer's board of directors or any other governing board and does not include the Issuer's wholly-owned direct or indirect Subsidiaries.

[&]quot;Fixed Exchange Rate" means the fixed rate of US\$1.00=NT\$27.9840.

"Prevailing Rate" for each Rate Calculation Date, means a rate determined by the Issuer in good faith as follows:

- (a) the fixing rate at 11:00 a.m., expressed as the number of NT Dollars per one US Dollar, quoted by Taipei Forex Inc.;
- (b) if no such rate is available under sub-paragraph (a), the prevailing rate determined by the Issuer in good faith on the basis of quotations provided by the Reference Dealers of the specified exchange rate for the Rate Calculation Date as obtained in accordance with the provisions below; and
- (c) if fewer than two quotations are provided under sub-paragraph (b), the exchange rate for the Rate Calculation Date as shall be determined by an Independent Investment Bank in good faith.

In determining the prevailing rate under sub-paragraph (b), the Issuer will request the Taipei office of each of the Reference Dealers to provide a quotation of what the specified screen rate would have been had it been published, reported or available for the Rate Calculation Date, based upon each Reference Dealer's experience in the foreign exchange market for NT Dollars and general activity in such market on the Rate Calculation Date. The quotations used to determine the Prevailing Rate for a Rate Calculation Date will be determined in each case for such Rate Calculation Date, and will be requested at 3:30 p.m. (Taipei time) on such Rate Calculation Date or as soon as practicable after it is determined that the specified screen rate was not available.

If four quotations are provided, the rate for a Rate Calculation Date will be the arithmetic mean of the rates, without regard to the rates having the highest and lowest value. For this purpose, if more than one quotation has the same highest value or lowest value, then the rate of only one of such quotations shall be disregarded. If two or three quotations are provided, the rate for a Rate Calculation Date will be the arithmetic mean of the rates provided.

As soon as practicable after the Prevailing Rate has been determined, the Issuer will notify the Agents in writing of the Prevailing Rate and the applicable Settlement Equivalent on the Rate Calculation Date.

All notifications, opinions, determinations, certificates, calculations, quotations and decisions given, expressed, made or obtained for the purposes of determining the Prevailing Rate, whether by the Reference Dealers (or any of them), the Issuer or the Independent Investment Bank, will (in the absence of fraud, willful misconduct or gross negligence) be binding on the Issuer, the Trustee, the Agents and all Bondholders.

"Purchase Date" has the meaning specified under the caption "— Repurchase Procedures" above.

"Rate Calculation Date" means the day which is fifth Business Days before the due date of the relevant amount.

"Redemption Date" means, with respect to any Bond, (i) the date fixed for redemption of such Bond pursuant to a notice of redemption given by the Issuer in accordance with the provisions of the Indenture; or (ii) the Maturity Date of such Bond if such Bond has not been redeemed, repurchased and canceled or converted in accordance with its terms prior to the Maturity Date.

"Reference Dealers" means four leading dealers engaged in the foreign exchange market of the relevant currency selected by the Issuer.

"Settlement Equivalent" for the relevant Rate Calculation Date in respect of any US Dollar-denominated amount payable in respect of the Bonds, means such US Dollar amount converted into NT Dollar amount

using the Fixed Exchange Rate, and then converted back to US Dollar amount using the applicable Prevailing Rate on such date.

"Securities Act" means the United States Securities Act of 1933, as amended.

"Subsidiary" means, with respect to any Person, (a) any entity which is controlled or of which more than 50% of its Capital Stock is owned directly or indirectly by such Person, or (b) any entity which at any time has its accounts consolidated with those of that Person or which, under the law, regulations or generally accepted accounting principles of the jurisdiction of incorporation of such Person from time to time, should have its accounts consolidated with those of that Person.

"Taxing Authority" means any government or political subdivision or any authority or agency thereof, having the legal power and authority to levy a mandatorily payable charge, assessment or tax.

"TPEx" means the Taipei Exchange, formally known as GreTai Securities Market.

"Trading Day" means (a) with respect to the Common Shares, a day when the TPEx is open for business, provided, however, if no transaction price or closing bid and offered prices are reported by the TPEx in respect of the Common Shares for one or more Trading Days, such day or days will be disregarded in any relevant calculation and will be deemed not to have existed when ascertaining any period of consecutive Trading Days and (b) with respect to Capital Stock of the Issuer (other than Common Shares), a day on which any securities exchange or quotation system selected by the Issuer and notified to the Paying Agent for this purpose (the "Selected Exchange") on which shares of such Capital Stock (other than Common Shares) are quoted or traded is open for trading or quotation; provided, however, if no bid price is reported by the Selected Exchange in respect of such Capital Stock (other than Common Shares) for one or more Trading Days, such day or days will be disregarded in any relevant calculation and will be deemed not to have existed when ascertaining any period of consecutive Trading Days.

"US Dollars" or "US\$" means the lawful currency for the time being of the United States of America.

Certain Covenants

Negative Pledge

So long as any Bond remains outstanding, the Issuer shall not, and shall ensure that none of its Subsidiaries will, create or permit to subsist any Lien on any of its or, as the case may be, such Subsidiary's, property, assets or revenues, present or future, to secure for the benefit of the holders of any International Investment Securities (as defined below) (i) payment of any sum owing in respect of any such International Investment Securities, (ii) any payment under any guarantee of any such International Investment Securities, unless (a) contemporaneously therewith effective provision is made to secure the Bonds equally and ratably with such International Investment Securities with a similar Lien on the same property, assets or revenues securing such International Investment Securities for so long as such International Investment Securities are secured by such Lien or (b) with such other security, guarantee, indemnity or other arrangement as shall be approved by Holders holding not less than 50% of the principal amount of the outstanding Bonds.

As used herein, "International Investment Securities" means bonds, debentures, notes or other similar investment securities of the Issuer or any other person evidencing indebtedness, or any guarantees thereof, which (i) either (A) are by their terms payable, or confer a right to receive payment, in any currency other than NT Dollars or (B) are denominated in NT Dollars and more than 50% of the aggregate principal amount thereof is initially distributed outside the ROC by or with the consent of the Issuer and (ii) are for the time being, or are intended to be or capable of being, quoted, listed, dealt in or traded on any stock exchange or over-the-counter or other securities market.

Consolidation, Amalgamation or Merger

The Issuer shall not consolidate with, merge or amalgamate into or transfer or convey all or substantially all of its properties and assets to, any Person (the consummation of any such event, a "Merger"), unless:

- (i) the corporation formed by such Merger or the Person that acquired such properties and assets shall expressly assume, by an indenture supplemental to the Indenture, all obligations of the Issuer under the Indenture and the performance of every covenant and agreement applicable to it contained therein;
- (ii) immediately after giving effect to any such Merger, no Default or Event of Default shall have occurred or be continuing or would result therefrom;
- (iii) the Issuer at least 20 Business Days prior to the Merger has delivered to the Trustee an officer's certificate stating that such Merger complies with the provisions of the Indenture relating to this matter and that all conditions precedent therein provided for or relating to such Merger have been complied with;
- (iv) the corporation formed by such Merger, or the Person that acquired such properties and assets, shall expressly agree to (A) indemnify each holder of a Bond against any tax, assessment or governmental charge payable by withholding or deduction thereafter imposed on such holder solely as a consequence of such Merger with respect to the payment of principal of and other amounts on the Bonds and (B) if organized under the laws of a jurisdiction other than the ROC, deliver a substitute undertaking to the Trustee to pay any additional amounts as may be necessary in order that the net amounts received by the holders of the Bonds, after any withholding or deduction of any such tax, assessment or other governmental charge shall equal the respective amounts of the principal of and Additional Amounts on the Bonds, which would have been receivable in respect of the Bonds in the absence of such Merger. No successor corporation or other Person shall have the right to redeem the Bonds unless the Issuer would have been entitled to redeem the Bonds pursuant to the Indenture in the absence of the Merger; and
- (v) the Issuer shall as soon as practicable on or prior to the Merger, deliver to the Trustee an opinion satisfactory to the Trustee of counsel(s) of recognized standing as to the legality and validity of the Merger.

In the event of any such Merger, the provisions described under "— Additional Amounts" and "— Redemption for Taxation Reasons" above will be applicable to the corporation formed by such Merger or the Person acquiring such properties and assets as appropriate, and any reference to the Issuer shall be read to include such successor person.

Provision of Financial Statements and Reports

So long as any Bond remains outstanding, the Issuer shall: (i) maintain proper accounting records as may be necessary for it to comply with all applicable laws and so as to enable the financial statements of the Issuer to be prepared; (ii) within six months of the end of each fiscal year, provide the Trustee with electronic copies of its annual audited consolidated accounts in English; (iii) as soon as practicable, provide to the Trustee electronic copies of its unaudited, semi-annual, consolidated accounts in English only (or English translations if English versions are not available) and copies of its unaudited, quarterly consolidated accounts in English only (or English translations if English versions are not available); (iv) as soon as practicable, provide to the Trustee electronic copies in English of all notices, statements and other documents (or summaries thereof) issued to holders of its Common Shares or its creditors (when such notifications, statements and other documents (or summary thereof) are required to be provided to all of such creditor(s) as a whole); and (v) maintain proper accounting records and permit Trustee access thereto.

Delivery of these reports and information to the Trustee is for informational purposes only and the Trustee's receipt of them will not constitute actual or constructive notice of any information contained therein or

determinable from information contained therein, including the Issuer's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on officers' certificates). The Trustee is not obliged to review, examine, distribute or request such report, information or document from the Issuer. If such report, information or document shall not be in the English language, the Trustee shall not be required to request or obtain or arrange for an English translation of the same, and the Trustee shall not be liable to any Bondholder or any other person for not doing so.

Conversion

Conversion Right

Each Holder will have the right (the "Conversion Right") during the Conversion Period to convert its Bonds (being US\$200,000 in principal amount or any integral multiples thereof), at the option of such converting Holder, upon delivery of an irrevocable notice (the "Conversion Notice") at the office of the conversion agent, on any Business Day during normal office hours (being between 9.00 a.m. and 3.00 p.m. (London time)) at the location of the conversion agent to which such Conversion Notice is delivered, into Common Shares; provided, however, that the Conversion Right during any Closed Period shall be suspended and the Conversion Period shall not include any such Closed Period. "Closed Period" means (i) the 60-day period immediately prior to the date of any of the Issuer's annual general shareholders' meetings; (ii) the 30-day period immediately prior to the date of any of the Issuer's extraordinary general shareholders' meetings; (iii) the period from the fifteenth Trading Day prior to the fifth day before the record date for the determination of the shareholders entitled to the receipt of dividends in cash or shares, subscription of new Common Shares due to capital increase or other benefits and bonuses to such record date; (iv) the period from the record date for the determination of the shareholders participating in any capital reduction to one day prior to the Trading Day on which the Common Shares are reissued after such capital reduction; (v) the period beginning from one Business Day before the Issuer's application with the Ministry of Economic Affairs of the ROC for a change of par value of the Common Shares to one day prior to the first Trading Day of the Common Shares reissued after the change of par value; and (vi) such other periods during which the Issuer may be required to close its stock transfer books under ROC laws and regulations and the rules of the TPEx applicable from time to time. The Issuer shall procure that Holders (and other applicable parties) are given at least 10 days' but not more than 60 days' prior notice of any Closed Period in accordance with the provisions of the Indenture.

The number of Common Shares to be issued upon conversion will be determined by dividing the aggregate principal amount of all the Bonds to be converted by such Holder (translated into NT Dollars at the Fixed Exchange Rate) by the Conversion Price in effect on the Conversion Date (as defined below). Fractions of Common Shares will not be issued on conversion, and the Issuer will pay in US Dollars for any fraction of a Common Share not issued as aforesaid, net of remittance fees, rounding to one US Dollar with US\$0.50 being rounded upwards.

The Conversion Price shall at all times be subject to Anti-dilution Adjustment (as defined below). The Issuer shall not take any action that would reduce the Conversion Price below a level that may be prescribed by applicable laws and regulations from time to time (if any).

Restrictions on Shareholdings by PRC Persons

Under current ROC laws and regulations, a PRC person is not permitted to convert the Bonds and to register as a shareholder of the Issuer unless (i) it is a qualified domestic institutional investor ("QDII") who will hold less than 10% of the Issuer's issued shares after conversion of the Bonds, or (ii) it otherwise obtains the approval of the Investment Commission, Ministry of Economic Affairs of the ROC if all the business items are within the positive list promulgated by the ROC government from time to time and it will hold 10% or more (or other threshold required by the regulators) of the Issuer's issued shares after conversion of the Bonds. In addition, there are restrictions on the amount remitted to Taiwan for investments by QDIIs, separately and jointly. Accordingly, the qualification criteria for a PRC person to make investment and the investment threshold imposed by the FSC and the TPEx might cause a Bondholder who is a PRC person to be unable to convert and hold the Common Shares issuable upon conversion of the Bonds. Under current ROC laws, "PRC person" means an individual holding a passport issued by the PRC,

a resident of any area of China under the effective control or jurisdiction of the PRC (but not including a special administrative region of the PRC such as Hong Kong and Macau, if so excluded by applicable laws of the ROC), any agency or instrumentality of the PRC and any corporation, partnership or other entity organized under the laws of any such area or controlled by, or directly or indirectly having more than 30% of its capital owned by, or beneficially owned by any such person, resident, agency or instrumentality.

ROC Procedures for Foreign Persons Holding Common Shares

Under current ROC law, a non-ROC converting Holder who is not a PRC person, before exercising the Conversion Right, is required to register with the Taiwan Stock Exchange for making investments in the ROC securities market. Such non-ROC converting Holder is also required to appoint a local agent in Taiwan which meets the qualifications that are set from time to time by the FSC to open a securities trading account with a local brokerage firm and a bank account to remit funds, pay taxes, exercise shareholders' rights and perform such other functions as may be designated by such Holder. In addition, such non-ROC converting Holder must also appoint a custodian in Taiwan to hold the securities and any cash proceeds for safekeeping, to make confirmation and settlement of trades and to report all relevant information. Furthermore, such non-ROC converting Holder is required to appoint an agent, referred to as a Tax Guarantor, in Taiwan which meets the qualifications that are set from time to time by the Ministry of Finance of the ROC for filing tax returns and making tax payments on their behalf. Without meeting such requirements, such non-ROC converting Holder would not be able to hold or sell or otherwise transfer Common Shares into which the Bonds may be converted on the TPEx or otherwise. For more details, see "Appendix B – Foreign Investment and Exchange Controls in the ROC."

Delivery of Common Shares upon Conversion

Upon a converting Holder exercising its Conversion Right, the Issuer shall as promptly as practicable issue Common Shares upon conversion of Bonds in accordance with the ROC law.

The Issuer's delivery to the Bondholder of the number of Common Shares into which the Bonds are convertible, together with any cash payment for any fraction of Common Shares, will be deemed to satisfy the Issuer's obligation to pay the principal of and other amounts on such Bonds.

See "Risk Factors — Risks Related to Our Shares and the Bonds — A liquid market for the Bonds may not develop, and the market for our Shares may not be liquid."

Procedures; Conversion Notice; Taxes and Duties

In order to effect a conversion, each Holder must complete, execute and deliver at such Holder's expense during the Conversion Period to the office of the conversion agent on any Business Day during normal office hours (being between 9.00 a.m. and 3.00 p.m. (London time)) at the location of the conversion agent, a Conversion Notice, in substantially the form then obtainable from the office of the conversion agent, together, in the case of Certificated Bonds, with the certificate representing the Bonds to be converted, and any certificates and other documents as may be required under applicable law and any expenses or other payments required to be paid by the Holder pursuant to the terms of the Indenture. The Conversion Notice shall contain, inter alia, an appointment of a local agent by such converting Holder and the name and address of such local agent.

Upon receipt of such Conversion Notices, the conversion agent shall process and transmit such Conversion Notices to the Issuer.

A Conversion Notice once so delivered may not be withdrawn without the consent in writing of the Issuer. Holders who deposit a Conversion Notice during a Closed Period will not be permitted to convert their Bonds until the first Business Day which is a Trading Day following the last day of that Closed Period which (if all other conditions to conversion have been fulfilled) will be the Conversion Date for such Bonds. Such Holders will not be registered as holders of Common Shares until the Conversion Date. The price at which such Bonds will be converted will be the Conversion Price in effect on the Conversion Date.

As conditions precedent to conversion, the Holder must undertake to the Issuer that all stamp, issue, registration and similar taxes and duties (if any) arising on conversion in the country in which the Bond is deposited for conversion, or payable in any jurisdiction consequent upon the issue and delivery of Common Shares or any other property or cash upon conversion to or to the order of a person other than the converting Bondholder have been paid to the relevant authority. Except as aforesaid, the Issuer will pay the expenses arising in the ROC on the issue of Common Shares on conversion of Bonds and all charges of the conversion agent in connection therewith as provided in the Indenture. The date on which any Bond and the Conversion Notice (in duplicate) relating thereto, together with any certificates and other documents as may be required under applicable law, are deposited with the conversion agent and the payments, if any, required to be paid by the Bondholder are made is hereinafter referred to as the "Deposit Date". The "Conversion Date" applicable to a Bond shall mean the next Business Day following the Deposit Date (or the first Business Day which is a Trading Day following the last day of a Closed Period if the related Conversion Notice was deposited during such Closed Period), which day must be a Trading Day and must fall within the Conversion Period. The Holder must therefore satisfy all such conditions on or before the Business Day prior to the end of the Conversion Period.

With effect from the opening of business in the ROC on the Conversion Date, the Issuer will deem the person designated in the Conversion Notice as the person in whose name the Common Shares to be issued upon such conversion are to be registered as the holder of record of the number of Common Shares (disregarding any retroactive adjustment of the Conversion Price referred to below prior to the time such retroactive adjustment shall have become effective), and at such time the rights of such converting Holder as a Holder with respect to the Bonds deposited for conversion shall cease.

On the Conversion Date, the Issuer will register the converting Holder (or its designee) in the Issuer's register of shareholders as the owner of the number of Common Shares to be issued upon conversion of such Bonds and, subject to any applicable limitations then imposed by ROC laws and regulations, according to the request made in the relevant Conversion Notice, procure that, as soon as practicable, and in any event within five Trading Days from the Conversion Date (subject to changes to ROC laws and regulations) (or where the converting Holder has not appointed a local agent, after such local agent is appointed), there be delivered to the local agent appointed by the converting Holder through book-entry system of Taiwan Depository & Clearing Corporation ("TDCC") or through physical delivery of a certificate or certificates for the relevant Common Shares, registered in the name specified for that purpose in the relevant Conversion Notice, together with any other property or cash required to be delivered upon conversion and such assignments and other documents (if any) as may be required by law to effect the delivery thereof.

Neither the Trustee nor any of the Agents shall have any responsibility or liability to pay any such stamp duty, income, transfer and registration tax or any other duties and taxes or any brokers' commissions or other stock exchange transaction costs or brokers' commissions, together with any value added or other tax thereon, arising in any jurisdiction and shall not be liable to any Bondholder or any other person for not doing so.

Adjustments to the Conversion Price

Anti-dilution. The Conversion Price will be subject to adjustment ("Anti-dilution Adjustment") in the circumstances described below:

(i) If the Issuer shall issue Common Shares as a dividend in Common Shares or make a free distribution or bonus issue of Common Shares which is treated as a capitalization issue for accounting purposes (including but not limited to capitalization of retained earnings or capital reserves), then the Conversion Price in effect on the record date for the determination of the shareholders entitled to receive such dividend and/or distribution shall be adjusted in accordance with the following formula:

$$NCP = OCP \times [N / (N + n)]$$

where:

NCP = the Conversion Price after such adjustment.

OCP = the Conversion Price before such adjustment.

N = the number of Common Shares outstanding at the time of issuance of such dividend and/or distribution (or at the close of business in Taipei on such record date, as the case may be).

N = the number of Common Shares to be distributed to the shareholders as a dividend and/or distribution.

- (ii) If the Issuer shall (a) subdivide its outstanding Common Shares, (b) combine its outstanding Common Shares into a smaller number of Common Shares, or (c) re-classify any of its Common Shares into other securities of the Issuer, then the Conversion Price shall be appropriately adjusted so that the Holder, in respect of the Conversion Date which occurs after the coming into effect of the adjustment described in this subsection (ii), shall be entitled to receive the number of Common Shares and/or other securities of the Issuer which it would have held or have been entitled to receive after the happening of any of the events described above had such Bond been converted immediately prior to the happening of such event (or, if the Issuer has fixed a prior record date for the determination of the shareholders entitled to receive any such securities issued upon any such subdivision, combination or reclassification, immediately prior to such record date), but without prejudice to the effect of any other adjustment to the Conversion Price made with effect from the date of the happening of such event (or such record date) or any time thereafter.
- (iii) If the Issuer shall grant, issue or offer to the holders of Common Shares rights entitling them to subscribe for or purchase Common Shares, which expression shall include those Common Shares which are required to be offered to employees and persons other than shareholders in connection with such grant, issue or offer, at a consideration per Common Share receivable by the Issuer which is fixed:
 - (a) on or prior to the record date mentioned below and is less than the Market Value per Common Share on such record date; or
 - (b) after the record date mentioned below and is less than the Market Value per Common Share on the date the Issuer fixes the said consideration,

then the Conversion Price in effect (in the case of (a) above) on the record date for the determination of the shareholders entitled to receive such rights or (in the case of (b) above) on the date the Issuer fixes the said consideration shall be adjusted in accordance with the following formula:

$$NCP = OCP \times [(N + v) / (N + n)]$$

where:

NCP and OCP have the meanings ascribed thereto in subsection (i) above.

N = the number of Common Shares outstanding at the close of business in the ROC (in the case of (a) above) on such record date or (in the case of (b) above) on the date the Issuer fixes the said consideration.

n = the number of Common Shares to be issued in connection with such rights issue at the said consideration.

v = the number of Common Shares which the aggregate consideration receivable by the Issuer would purchase at such Market Value specified in (a) or, as the case may be, (b) above.

Subject as provided below, such adjustment shall become effective immediately after the latest date for the submission of applications of such Common Shares by shareholders entitled to the same pursuant to such rights or (if later) immediately after the Issuer fixes the said consideration but retroactively to immediately after the record date mentioned above.

If, in connection with a grant, issue or offer to the holders of Common Shares of rights entitling them to subscribe for or purchase Common Shares, any Common Shares which are not subscribed for or purchased by the persons entitled thereto are purchased by other persons after the latest date for the submission of applications for such Common Shares, an adjustment shall be made to the Conversion Price in accordance with the above provisions which shall become effective immediately after the date the Issuer receives the consideration in full, from such other persons but retroactively to immediately after the record date mentioned above.

If, in connection with a grant, issue or offer to the holders of Common Shares of rights entitling them to subscribe for or purchase Common Shares, any such Common Shares which are not subscribed for or purchased by such other persons as referred to above or by the persons entitled thereto (or persons to whom shareholders have transferred such rights) who have submitted applications for such Common Shares as referred to above are offered to and/or subscribed by others, no further adjustment shall be made to the Conversion Price by reason of such offer and/or subscription.

- (iv) If the Issuer shall grant, issue or offer to the holders of Common Shares warrants entitling them to subscribe for or purchase Common Shares at a consideration per Common Share receivable by the Issuer which is fixed:
 - (a) on or prior to the record date for the determination of the shareholders entitled to receive such warrants and is less than the Market Value per Common Share at such record date; or
 - (b) after the record date mentioned above and is less than the Market Value per Common Share on the date the Issuer fixes the said consideration,

then the Conversion Price in effect (in a case within (a) above) on the record date for the determination of the shareholders entitled to receive such warrants or (in a case within (b) above) on the date the Issuer fixes the said consideration shall be adjusted in accordance with the following formula:

$$NCP = OCP \times [(N + v) / (N + n)]$$

where:

NCP and OCP have the meanings ascribed thereto in subsection (i) above.

N = the number of Common Shares outstanding at the close of business in the ROC (in the case of (a) above) on such record date or (in the case of (b) above) on the date the Issuer fixes the said consideration.

N = the number of Common Shares initially to be issued upon exercise of such warrants at the said consideration where no applications by shareholders entitled to such warrants are required. Where applications by shareholders entitled to such warrants are required, n equals the number of such Common Shares that equals (A) the number of warrants which underwriters have agreed to underwrite as referred to below or, as the case may be, and (B) the number of warrants for which applications are received from shareholders as referred to below except to the extent already adjusted for under (A).

v = the number of Common Shares which the aggregate consideration receivable by the Issuer would purchase at such Market Value per Common Share specified in (a) or, as the case may be, (b) above.

Subject as provided below, such adjustment shall become effective, where applications by shareholders entitled to the same are required as aforesaid, immediately after the latest date for the submission of such applications or (if later) immediately after the Issuer fixes the said consideration but retroactively to immediately after the record date mentioned above.

If, in connection with a grant, issue or offer to the holders of Common Shares of warrants entitling them to subscribe for or purchase Common Shares where applications by shareholders entitled to the same are required, any warrants which are not subscribed for or purchased by the shareholders entitled thereto are purchased by other persons after the latest date for the submission of applications for such warrants, an adjustment shall be made to the Conversion Price in accordance with the above provisions which shall become effective immediately after the date the Issuer receives the consideration in full, from such other persons but retroactively to immediately after the record date mentioned above.

If, in connection with a grant, issue or offer to the holders of Common Shares of warrants entitling them to subscribe for or purchase Common Shares where applications by shareholders entitled to the same are required, any such warrants which are not subscribed for or purchased by such other persons as referred to above or by the shareholders entitled thereto (or persons to whom shareholders have transferred the right to purchase such warrants) who have submitted applications for such warrants as referred to above are offered to and/or subscribed by others, no further adjustment shall be made to the Conversion Price by reason of such offer and/or subscription.

(v) In case the Issuer or any Subsidiary of the Issuer shall distribute to all holders of Common Shares, any shares of Capital Stock of the Issuer other than Common Shares, evidences of indebtedness or other assets (other than cash distributions described below) of the Issuer, or rights or warrants to subscribe for or purchase any Capital Stock of the Issuer (other than Common Shares) at less than the Market Value of such indebtedness, assets or Capital Stock, determined as of the date on which the board of directors of the Issuer approves such distribution, then in each such case the Conversion Price shall be adjusted in accordance with the following formula:

$$NCP = OCP \times [(M - fmv) / M]$$

where:

NCP and OCP have the meanings ascribed thereto in subsection (i) above.

M = the Market Value per Common Share on the record date for the determination of shareholders entitled to receive such distribution.

fmv = the Fair Market Value (as determined by an independent financial institution selected by the Issuer, at the expense of the Issuer and promptly notified in writing to the Trustee) of the portion of Capital Stock other than Common Shares, evidences of indebtedness or other assets so distributed applicable to one Common Share less any consideration payable for the same by the relevant Shareholder.

(vi) In case the Issuer shall, by dividend or otherwise, distribute to all holders of Common Shares cash then, in such case, the Conversion Price shall be adjusted downward, not upward (with such adjustment to be effective on the record date for the determination of the shareholders entitled to receive such distribution) in accordance with the following formula and rounded to the nearest cent of a NT Dollar:

$$NCP = OCP x [1 - (C/M)]$$

where:

NCP and OCP have the meanings ascribed thereto in subsection (i) above.

C = the amount of cash so distributed applicable to one Common Share.

M = the Market Value per Common Share on such record date.

If such dividend or distribution is not so paid or made, the Conversion Price shall again be adjusted to be the Conversion Price which would then be in effect if such dividend or distribution had not been approved.

(vii) (a) If the Issuer shall reduce its share capital other than by means of canceling any Common Shares repurchased for the purpose of holding such Common Shares in treasury and does not distribute any cash in connection with such share capital reduction, then the Conversion Price in effect on the record date for the determination of the shareholders participating in such capital reduction shall be adjusted in accordance with the following formula:

$$NCP = OCP \times (N/n)$$

where:

NCP and OCP have the meanings ascribed thereto in subsection (i) above.

N = the number of Common Shares outstanding immediately prior to such capital reduction.

n = the number of Common Shares outstanding immediately after such capital reduction.

For the avoidance of doubt, no adjustment to the Conversion Price under this subsection will be required if the Issuer cancels any Common Shares repurchased for the purpose of holding such Common Shares in treasury.

(b) If the Issuer shall reduce its share capital other than by means of canceling any Common Shares repurchased for the purpose of holding such Common Shares in treasury and shall distribute cash in connection with such share capital reduction, the Conversion Price then in effect on the record date for the determination of the shareholders participating in such capital reduction shall be adjusted in accordance with the following formula:

$$NCP = (OCP - C) \times (N/n)$$

where:

NCP and OCP have the meanings ascribed thereto in subsection (i) above.

N and n have the meanings ascribed thereto in clause (a) of this subsection above.

C = the amount of cash distributed per Common Share.

For the avoidance of doubt, no adjustment to the Conversion Price under this subsection will be required if the Issuer cancels any Common Shares repurchased for the purpose of holding such Common Shares in treasury.

- (c) Effective date of adjustment: Such adjustment shall become effective immediately on the record date for the determination of the shareholders participating in such capital reduction.
- (viii) In case a tender or exchange offer made by the Issuer or any Subsidiary of the Issuer for all or any portion of the Common Shares shall expire and such tender or exchange offer shall involve the payment by the Issuer or such Subsidiary of consideration per Common Share having a Fair

Market Value (as determined by an independent financial institution selected by the Issuer, at the expense of the Issuer and promptly notified in writing to the Trustee) at the last time (the "Expiration Date") tenders or exchanges could have been made pursuant to such tender or exchange offer (as it shall have been amended) that exceeds the Market Value per Common Share, as of the Expiration Date, the Conversion Price shall be adjusted in accordance with the following formula:

$$NCP = OCP \times [(N \times M) / (a + [(N - n) \times M])]$$

where:

NCP and OCP have the meanings ascribed thereto in subsection (i) above.

N = the number of Common Shares outstanding (including any tendered or exchanged Common Shares) on the Expiration Date.

M = Market Value per Common Share as of the Expiration Date.

a = the Fair Market Value of the aggregate consideration payable to the holders of Common Shares based on the acceptance (up to a maximum specified in the terms of the tender or exchange offer) of all Common Shares validly tendered or exchanged and not withdrawn as of the Expiration Date (the Common Shares deemed so accepted up to any such maximum, being referred to as the "Purchased Shares").

n = the number of Purchased Shares.

such reduction to become retroactively effective immediately prior to the opening of business on the day following the Expiration Date.

If the Issuer is obligated to purchase Common Shares pursuant to any such tender or exchange offer, but the Issuer is permanently prevented by applicable law from effecting any such purchase or all such purchases are rescinded, the Conversion Price shall again be adjusted to be the Conversion Price which would then be in effect if such tender or exchange offer had not been made.

(ix) In case the Issuer issues Common Shares (other than (A) Common Shares issued upon conversion or exchange of any convertible or exchangeable securities (including the Bonds) issued by the Issuer; (B) Common Shares issued upon exercise of any rights or warrants granted, offered or issued by the Issuer; (C) issuance of employee stock bonus; (D) issuance of restricted stock for employees; or (E) Common Shares issued in any of the circumstances described in subsections (i) and (ii)) or the Issuer or any Subsidiary of the Issuer shall issue any securities initially convertible into or exchangeable for Common Shares at a price per Common Share less than the Market Value per Common Share determined as of the date on which the board of directors or shareholders' meeting of the Issuer or such Subsidiary, if applicable, approves such issuance, the Conversion Price in effect immediately prior to the date of issue of such Common Shares or convertible or exchangeable securities shall be adjusted and become effective in accordance with the following formula:

$$NCP = OCP \times [(N + v) / (N + n)]$$

where:

NCP and OCP have the meanings ascribed thereto in subsection (i) above.

N = the number of Common Shares outstanding on the date of issuance of such Common Shares or initially convertible or exchangeable securities, immediately prior to such issuance.

n = the number of Common Shares issued or issuable upon conversion or exchange of such initially convertible or exchangeable securities.

v = the number of Common Shares which the aggregate consideration issue price of the total amount of Common Shares would purchase at Market Value; in the case of convertible or exchangeable securities, the number of Common Shares which the conversion price or exchange price of the newly issued securities multiply by "n" would purchase at Market Value; provided that if the new Common Shares are issued by the Issuer to exchange for the total outstanding shares of an entity to be consolidated with, merged or amalgamated into the Issuer, such "aggregate consideration issue price of the total amount of Common Shares" shall mean the aggregate amount of the fair value per common share of such entity multiplied by "n" and further multiplied by the applicable share swap ratio under such consolidation, merger or amalgamation. The fair value per common share of such entity shall be (x) in the case of a listed company, the closing price of its common share on the date on which the share swap ratio was approved by the shareholder's meeting; or (y) in the case of a private company, the fair value falling into the fair value of such entity as determined by an independent expert in its fairness opinion, times the share swap ratio.

If the conversion or exchange right of any such convertible or exchangeable securities expires prior to exercise, the Conversion Price shall be readjusted to reflect the actual securities converted or exchanged.

(x) In case the Issuer reissues the Common Shares to change the par value of the Common Shares, then the Conversion Price in effect on the record date for the determination of the shareholders participating in such change of the par value of the Common Shares shall be adjusted in accordance with the following formula:

$$NCP = OCP \times (N / n)$$

where:

NCP and OCP have the meanings ascribed thereto in subsection (a) above.

- N = the number of Common Shares outstanding immediately prior to such change of par value of the Common Shares.
- n = the number of Common Shares outstanding immediately after such change of par value of the Common Shares.

Such adjustment shall become effective immediately on the record date for the determination of the shareholders participating in such change of the par value of the Common Shares.

- (xi) If the Issuer shall declare a dividend in, or make a free distribution or bonus issue of, Common Shares which dividend, issue or distribution is to be paid or made to shareholders as of a record date which is also:
 - A. the record date for the issue of any rights or warrants which requires an adjustment of the Conversion Price pursuant to subsections (iii) or (iv) above;
 - B. the day immediately before the date of issue of any securities convertible into or exchangeable for Common Shares which requires an adjustment of the Conversion Price pursuant to subsection (ix) above;
 - C. the day immediately before the date of a distribution which requires an adjustment of the Conversion Price pursuant to subsection (v) above;
 - D. the record date for distribution of cash which requires an adjustment of the Conversion Price

pursuant to subsection (vi) above;

- E. the record date for the determination of the shareholders participating in capital reduction which requires an adjustment of the Conversion Price pursuant to subsection (vii) above;
- F. the Expiration Date with respect to any tender or exchange offer which requires an adjustment to the Conversion Price pursuant to subsection (viii) above; or
- G. the relevant date for an analogous event or circumstance which requires an adjustment to the Conversion Price:

then (except where such dividend, bonus issue or free distribution gives rise to a retroactive adjustment of the Conversion Price under subsections (i) or (ii) above) no adjustment of the Conversion Price in respect of such dividend, bonus issue or free distribution shall be made under the relevant subsections, but in lieu thereof an adjustment shall be made (A) under subsections (iii), (iv) or (ix) above, as applicable, by including in the denominator of the fraction described therein the aggregate number of Common Shares to be issued pursuant to such dividend, bonus issue or free distribution and (B) under subsections (v), (vi), (vii) and (viii) above, as applicable, by multiplying the Conversion Price after the adjustment under such subsections by a fraction the numerator of which is the number of Common Shares outstanding on the record date and the denominator of which is the sum of such number of Common Shares outstanding and the aggregate number of Common Shares to be issued pursuant to such dividends, bonus issue or free distribution.

(xii) In case of a Merger of the Issuer, each Bond then outstanding shall, without the consent of any Bondholders, become convertible only into the kind and amount of securities, cash and other property receivable upon such Merger by a holder of the number of Common Shares, into which such Bonds could have been converted immediately prior to such Merger. The corporation formed by such Merger or the Person that acquired such properties and assets shall enter into a supplemental indenture with the Trustee to provide for the continuation of the Conversion Rights to continue after such Merger and such supplemental indenture shall provide for adjustments to the Conversion Price which shall be as nearly equivalent as practicable to the adjustments provided in the Indenture provided that where there has been a Change of Control pursuant to such a Merger, a Holder may exercise its Change of Control Put Right as set forth in "— Repurchase in the Event of Change of Control".

If any event or circumstance analogous to the events and circumstances described in subsections (i) through (x) occur, the Conversion Price shall be adjusted as set forth in the analogous subsection in the Indenture.

Provisions Applicable to All Conversions and Adjustments of Conversion Price

No adjustment of the Conversion Price will be required to be made until cumulative adjustments, required to be made in the circumstances set forth above, amount to 1.0% or more of the Conversion Price as last adjusted. However, any adjustment, required to be made in the circumstances set forth above, which is not made because of failure to meet the 1.0% threshold, will be carried forward. Except as otherwise described below, the Conversion Price may at any time be reduced by the Issuer.

All calculations relating to conversion, including adjustments of the Conversion Price, will be made to the lower 0.001 of a share of securities or other property or nearest cent, as the case may be.

Whenever the Conversion Price is adjusted, the Issuer will promptly file with the Agent an officer's certificate setting forth the date on which such adjustment became effective, the Conversion Price after such adjustment and prior to such adjustment and setting forth a brief statement of the facts requiring such adjustment. The Issuer shall give notice of such adjustment of the Conversion Price setting forth the adjusted Conversion Price, the Conversion Price prior to such adjustment, a brief statement of the facts requiring such adjustment and the date on which such adjustment became effective and shall give such notice of such adjustment of the Conversion Price to each Holder of a Bond.

Neither the Trustee nor any Agent shall be under any duty to monitor whether any event or circumstance has happened or exists which may require an adjustment to be made to the Conversion Price or to make any calculation (or verification thereof) in connection with the Conversion Price and will not be responsible to Bondholders for any loss arising from any failure by it to do so or for any delay by the Issuer in making a determination or any erroneous determination in connection with the Conversion Price.

Events of Default; Notice and Waiver

The Indenture provides that, if one or more of the following events or conditions (each an "Event of Default") shall have occurred, the Trustee at its discretion may, and if so requested in writing by Holders of not less than 25% in aggregate principal amount of the Bonds then outstanding or if so directed by a resolution of Bondholders' meeting shall, subject to the Trustee being indemnified and/or secured and/or prefunded to its satisfaction), declare the Bonds to be immediately due and payable at the Settlement Equivalent of the Early Redemption Amount, Additional Amounts, if any, and other amounts. In the case of certain events of bankruptcy or insolvency, the Bonds shall automatically become and be immediately due and payable at the Settlement Equivalent of the Early Redemption Amount, Additional Amounts, if any, and other amounts. Under certain circumstances, the Holders of a majority in aggregate principal amount of the outstanding Bonds may rescind any such acceleration with respect to the Bonds and its consequences.

Under the Indenture, Events of Default include:

- (i) a default that occurs and continues for more than three Business Days in payment of the principal in respect of any Bond when due and payable;
- (ii) default in the payment of Additional Amounts upon any Bond as and when the same becomes due and payable;
- (iii) failure by the Issuer to deliver the Common Shares as and when such Common Shares are required to be delivered following conversion of a Bond in accordance with the Indenture, which failure continues for more than five Business Days;
- (iv) failure on the part of the Issuer duly to observe or perform any of the covenants or agreements provided in the Bonds or the Indenture (other than those referred to in clauses (i) or (ii) above) which failure cannot be remedied or, if such failure is capable of being remedied, is not remedied within 30 days after the date on which written notice thereof requiring the Issuer to remedy the same shall have been given to the Issuer by the Trustee (acting on instructions of the Holders);
- (v) there shall have been entered against the Issuer or any of its Subsidiaries a final judgment, decree or order by a court of competent jurisdiction for the payment of money in excess of US\$20 million with respect to the Issuer or any of its Subsidiaries (or its equivalent in any other currency or currencies) as a result of which (i) a distress, attachment, execution or other legal process is levied, enforced or sued out on or against all or any material part of the property, assets or revenues of the Issuer or any of its Subsidiaries and is not discharged or stayed within 60 days or (ii) any mortgage, charge, pledge, lien or other encumbrance, present or future, created or assumed by the Issuer or any of its Subsidiaries becomes enforceable and any step is taken to enforce it (including the taking of possession or the appointment of a receiver, manager or other similar person);
- (vi) (A) the Issuer or any of its Subsidiaries shall fail to make any payment with respect to present or future Debt (other than the Bonds) in an aggregate principal amount in excess of US\$20 million with respect to the Issuer or any of its Subsidiaries (or its equivalent in any other currency or currencies) when and as the same shall become due and payable, if such failure shall continue for more than the period of grace, if any, originally applicable thereto or (B) the Issuer or any of its Subsidiaries shall fail to perform or observe any covenant or agreement to be performed or observed by the Issuer or any of its Subsidiaries contained in any agreement or instrument evidencing Debt (other than the Bonds) in an aggregate

principal amount in excess of US\$20 million with respect to the Issuer or any of its Subsidiaries (or its equivalent in any other currency or currencies) and such failure results in the acceleration of the maturity of any amount owing thereunder;

- (vii) a decree or order by a court having jurisdiction shall have been entered under any applicable bankruptcy, insolvency, reorganization or other similar law (A) adjudging the Issuer as bankrupt or insolvent, or approving as properly filed a petition seeking reorganization of the Issuer, (B) appointing a receiver or liquidator or trustee or assignee in bankruptcy or insolvency of the Issuer or its property or (C) ordering the winding up or liquidation of the affairs of the Issuer and in any such case such decree or order shall have continued undischarged and unstayed for a period of 60 days;
- (viii) the Issuer shall voluntarily commence proceedings to be adjudicated as bankrupt or insolvent, or shall consent to the filing of a bankruptcy or insolvency proceeding against it, or shall file a petition or answer or consent seeking reorganization under any applicable bankruptcy, insolvency, reorganization or other similar law or shall consent to the filing of any such petition, or shall consent to the appointment of a receiver or liquidator or trustee or assignee in bankruptcy or insolvency of it or its property, or shall make an assignment for the benefit of creditors;
- (ix) any step is taken by any person with a view to the seizure, compulsory acquisition, expropriation or nationalization of all or a material part of the assets of the Issuer or any of its Subsidiaries (and, if capable of being remedied, is not remedied within 60 days);
- (x) any action, condition or thing (including the obtaining or effecting of any necessary consent, approval, authorization, exemption, filing, license, order, recording or registration) at any time required to be taken, fulfilled or done in order (a) to enable the Issuer lawfully to enter into, exercise its rights and perform and comply with its obligations under the Bonds and the Indenture, (b) to ensure that those obligations are legally binding and enforceable, and (c) to make the Bonds and the Indenture admissible in evidence in the courts of the ROC is not taken, fulfilled or done (and, if capable of being remedied, is not remedied within 60 days); or
- (xi) it is or will become unlawful for the Issuer to perform or comply with any one or more of its obligations under any of the Bonds or the Indenture (and, if capable of being remedied, is not remedied within 60 days.

If an Event of Default shall have occurred and be continuing, interest shall accrue on the overdue sum at the rate of 2.00% per annum from the due date and ending on the date on which payment is made to the Holders in respect thereof (both dates inclusive). Such default interest shall accrue on the basis of the actual number of days elapsed and a 360-day year consisting of 12 months of 30 days each.

The Holders of a majority in aggregate principal amount of the outstanding Bonds may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee; *provided* that such direction shall not be in conflict with any law or the Indenture and subject to certain other limitations. The Trustee may refuse to perform any duty, exercise any right or power, extend or risk its own funds or otherwise incur any financial liability, unless it receives indemnity and/or security and/or pre-funding satisfactory to it against any loss, liability or expense. No Holder will have the right to pursue any remedy with respect to the Indenture or the Bonds, unless:

- (i) such Holder shall have previously given the Trustee written notice of a continuing Event of Default;
- (ii) the Holders of at least 25% in aggregate principal amount of the outstanding Bonds shall have made a written request to the Trustee to pursue such remedy;
- (iii) such Holder or Holders shall have offered to the Trustee security and/or indemnity and/or pre-

funding against any loss, liability or expense satisfactory to it;

- (iv) the Trustee shall have failed to comply with the request within 60 days after receipt of such notice, request and offer of security or indemnity and/or pre-funding; and
- (v) the Holders of a majority in aggregate principal amount of the outstanding Bonds shall not have given the Trustee a direction inconsistent with such request within 60 days after receipt of such request.

The right of any Holder (i) to receive payment of the principal of and other amounts on the Bonds, Additional Amounts, the Holder's Put Price upon exercise of the Holder's Put Right, the Delisting Put Price upon exercise of the Delisting Put Right or the Change of Control Put Price upon exercise of the Change of Control Put Right, or to receive Common Shares on or after any Redemption Date, Purchase Date or Conversion Date, as the case may be, (ii) to convert its Bonds or (iii) to bring suit for the enforcement of any such right, shall not be materially impaired or materially adversely affected without such Holder's consent.

The Holders of a majority in aggregate principal amount of Bonds at the time outstanding may waive any existing Default and its consequences, except (i) any default in any payment on the Bonds, (ii) any default with respect to the Conversion Rights of Holders or (iii) any default with respect to certain covenants or provisions in the Indenture which may not be modified without the consent of the Holder as described in "— Meeting of Bondholders; Modification and Waiver" below. When a Default is waived, it is deemed cured and shall cease to exist, but no such waiver shall extend to any subsequent or other Default or impair any consequent right.

The Trustee and the Agents shall not be required to take any steps to ascertain whether an Event of Default or any event which could lead to the occurrence of an Event of Default has occurred and will not be responsible to Holders or any other person for any loss arising from any failure by it to do so. The Trustee or the Agents shall be entitled to assume that no such event has occurred and that the Issuer is performing all its obligations under the Indenture and the Bonds until they have received written notice to the contrary from the Issuer. The Trustee is entitled to rely on any opinion of counsel or officer's certificate regarding whether an Event of Default has occurred.

The Issuer will be required to furnish to the Trustee, within 14 days of its annual audited financial statements being made available to its shareholders and also within 14 days after any request by the Trustee, a statement concerning the performance and observance of its obligations under the Bonds or the Indenture. In addition, the Issuer is required to file promptly with the Trustee written notice of the occurrence of any Default or Event of Default, specifying each such default and the nature and status thereof.

Prescription

Claims in respect of payment of the principal of or other amounts on the Bonds will be prescribed unless made within a period of six years from the relevant due date of payment in respect thereof.

Under ROC laws, claims in respect of the payment of (a) principal and premium and (b) default interest would become unenforceable after 15 years and 5 years, respectively from the relevant due date of payment in respect thereof.

Meeting of Bondholders; Modification and Waiver

The Indenture contains provisions for convening meetings of the Holders to consider any matter affecting their interests, including the approval of certain amendments or modifications of the Bonds or the provisions of the Indenture upon either the written consent of the Holders of a majority in aggregate principal amount of the outstanding Bonds or the approval at a meeting of the Holders duly called by persons entitled to vote a majority in principal amount of the outstanding Bonds. The quorum at any such meeting shall be two or more persons entitled to vote a majority in principal amount of the outstanding Bonds.

Modifications and amendments of the Indenture or the Bonds may be made by the Issuer and the Trustee with the written consent of the Holders of not less than a majority in aggregate principal amount of the outstanding Bonds; *provided* that no such modification or amendment may, without the consent of each Holder of the Bonds affected thereby:

- (i) change the Maturity Date of the principal of any Bond;
- (ii) change the Bondholder's Put Option Date;
- (iii) reduce the principal of or other amounts on any Bond or Settlement Equivalent payable in respect of the Bonds, or change the method of calculation of the Settlement Equivalent;
- (iv) increase the then current Conversion Price (except as required by the anti-dilution provisions of the Indenture);
- (v) change the place or currency of payment of the principal of or other amounts on any Bond or the method of calculating any such payment;
- (vi) impair the right to institute suit for the enforcement of any payment on or after the Maturity Date (or, in the case of a redemption, on or after the Redemption Date) of any Bond;
- (vii) alter the obligations of the Issuer under "— Certain Covenants Negative Pledge", "— Certain Covenants Consolidation, Amalgamation or Merger" or "— Additional Amounts" above;
- (viii) materially adversely affect the Conversion Right, the Holder's Put Right, the Delisting Put Right or the Change of Control Put Right;
- (ix) modify the obligations of the Issuer to maintain an office or agency in London, England or Luxembourg;
- (x) reduce the above-stated percentage of outstanding Bonds the consent of whose Holders is necessary to modify or amend the Indenture;
- (xi) reduce the percentage or aggregate principal amount of outstanding Bonds the consent of whose Holders is necessary for waiver of compliance with certain provisions of the Indenture or for waiver of certain Defaults;
- (xii) modify any of the percentage voting and quorum provisions described under "—Meeting of Bondholders; Modification and Waiver"; or
- (xiii) release the Issuer from any obligation under the Indenture other than in accordance with the provisions of the Indenture, or amend or modify any provision relating to such release in a manner that materially adversely affects the rights of the Holders.

Neither the Issuer nor any of its Subsidiaries will, directly or indirectly, pay or cause to be paid any consideration, whether by way of interest, fee or otherwise to any Holder for or as an inducement to any consent, waiver or amendment of any of the terms or provisions of the Indenture or the Bonds, unless such consideration is offered to be paid or agreed to be paid to all Holders that consent, waive or agree to amend in the time frame set forth in the solicitation documents relating to such consent, waiver or amendment.

Without the consent of any Holder, the Issuer together with the Trustee may amend the Indenture to:

- (i) cure any ambiguity, manifest errors, defect or inconsistency in the Indenture or the Bonds;
- (ii) provide for the assumption of the Issuer's obligations under the Bonds and the Indenture by the surviving Person in a Merger effected in accordance with the provisions of the Indenture described under "— Certain Covenants Consolidation, Amalgamation or Merger" above;

- (iii) make any other change that does not materially adversely affect the rights of any Holder;
- (iv) make any change necessary to comply with applicable ROC laws and regulations; or
- (v) add to the covenants or obligations of the Issuer under the Indenture or decrease the Conversion Price at the discretion of the Issuer or surrender any right, power or option conferred by the Indenture on the Issuer.

Notices

Whenever the Indenture provides for notice to be given to Holders, such notice will be validly given (except as otherwise expressly provided) if in writing and sent, first-class postage prepaid, to each Holder entitled thereto, at such Holder's last address as it appears on the Bond register. Any such notice shall be deemed to have been given on the seventh day after being so sent. Notwithstanding the foregoing, so long as the Bonds are represented by the Global Bonds and the Global Bonds are held on behalf of Euroclear and Clearstream, notice to Holders may be given by delivery of the relevant notice to Euroclear and Clearstream or their successor clearing systems for communication by them to entitled accountholders in substitution for notification as required by the foregoing sentence.

Concerning the Trustee

The Bank of New York Mellon, London Branch has been appointed as Trustee under the Indenture, as Paying Agent and as Conversion Agent and The Bank of New York Mellon SA/NV, Luxembourg Branch as registrar (the "Registrar") and as transfer agent (the "Transfer Agent", and together with the Paying Agent, Conversion Agent and the Registrar, the "Agents") with regard to the Bonds. The Indenture provides that, prior to the occurrence of an Event of Default, the Trustee will not be liable except for the performance of such duties as are specifically set forth in such Indenture, and no implied covenant, duty or obligation shall be read into the Indenture, the Bonds or any documents to which the Trustee is a party against the Trustee. If an Event of Default has occurred and is continuing, the Trustee will be obligated to use the same degree of care and skill as a prudent person in its exercise of the rights and powers vested in it under the Indenture. The Trustee will not be responsible for any loss, liability, cost, claim, actions, demand, expense or inconvenience which may result from their exercise or non-exercise of any rights or powers conferred under the Indenture for the benefit of the Holders. Whenever in the Indenture, the Bonds or by law, the Trustee shall have discretion or permissive power it may decline to exercise the same in the absence of approval by the Bondholders. In the exercise of its duties, the Trustee shall not be responsible for the verification of the accuracy or completeness of any certification submitted to it by the Issuer and is entitled to rely exclusively on the certification contained therein, and take action based on the information contained in, the certification or legal opinion. Notwithstanding anything described herein, the Trustee has no duty to monitor the performance or compliance of the Issuer in the fulfillment of its obligations under the Indenture and the Bonds. Furthermore, the Trustee shall not be deemed to have knowledge of any event unless it has been actually notified in writing of such event.

The Trustee shall not be responsible for the performance by any other person appointed by the Issuer in relation to the Bonds and, unless notified in writing to the contrary, shall assume that the same are being duly performed. The Trustee shall not be liable to any Holders or any other person for any action taken by the Holders or the Trustee in accordance with the instructions of the Holders.

The Trustee is entitled to rely on all instructions, notices, declarations and certifications received pursuant to the Indenture or the Bonds without investigating or being responsible for the accuracy, authenticity and validity of these instructions, notices, declarations and certifications.

Neither the Trustee nor the Agents will be responsible for making calculations or for verifying calculations performed by the Issuer or any other persons unless otherwise specified in the Indenture, or have a duty to verify the accuracy, validity and/or genuineness of any documents in relation to or in connection thereto, and shall not be liable to the Holders or any other person for not doing so.

Pursuant to the terms of the Indenture and the Bonds, the Issuer will reimburse the Trustee and the Agents for all reasonable expenses except to the extent that any such expense was due to the Trustee's gross negligence or willful misconduct.

The Indenture contains limitations on the rights of the Trustee, should it become a creditor of the Issuer to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claims, as security or otherwise. The Trustee is permitted to engage in other transactions with the Issuer and its Affiliates and shall not be obligated to account for any profits therefrom; *provided, however*, that if it becomes aware it has acquired any conflicting interest, it must eliminate such conflict or resign. The Trustee and the Agents may have an interest in, may be providing, or may in the future provide financial or other services to other parties.

The Trustee will not be under any obligation to exercise and have absolute and uncontrolled discretion as to exercise or non-exercise of any rights or powers conferred under the Indenture for the benefit of the Holders unless such Holders have instructed the Trustee in writing and offered to the Trustee indemnity and/or security indemnity and/or pre-funding satisfactory to the Trustee against any loss, liability or expense. Furthermore, each Holder, by accepting the Bonds will agree, for the benefit of the Trustee, that it is solely responsible for its own independent appraisal of and investigation into all risks arising under or in connection with the Indenture and has not relied on and will not at any time rely on the Trustee in respect of such risks.

Disclosure Obligations

The Indenture provides that the Issuer may have certain disclosure obligations and reporting obligations under ROC law if:

- (i) the person to be registered as a shareholder of the Issuer is a "related party" of the Issuer under the Guidelines Governing the Preparation of Financial Report by Securities Issuers of the ROC and such person beneficially owns Common Shares converted from the Bonds; or
- (ii) the person to be registered as a shareholder owns Common Shares issued upon conversion of the Bonds and the Common Shares so issued on conversion exceed 10% of the total number of Common Shares expected to be issued upon conversion of the Bonds based on the conversion price at the time of issue of the Bonds.

Due to these obligations, if so instructed by the Issuer, an Agent may ask the converting Holders to disclose the name of the person to be registered as the shareholder and to provide proof of identity and genuineness of any signature and other documents before it will convert the Bonds. The conversion of Bonds may be delayed until such Agent receives the requested information and satisfactory evidence of the compliance with all laws and regulations by the Holders. The information the Holder is required to provide may include the name and nationality of the person to be registered as a shareholder of the Issuer and the total number of Common Shares such person is converting or has converted in the past.

Governing Law and Jurisdiction

The Indenture and the Bonds are governed by, and shall be construed in accordance with, the laws of the State of New York. In relation to any legal action or proceedings arising out of or in connection with the Indenture and the Bonds, the Issuer has in the Indenture irrevocably and unconditionally submitted to the exclusive jurisdiction of the New York State and United States Federal courts sitting in the Borough of Manhattan, The City of New York. The Issuer has appointed Cogency Global Inc., now located at 122 East 42nd Street, 18th Floor, New York, NY 10168, as its agent for service of process.

Bondholders should note that exercise of a Conversion Right is subject not only to the provisions of the Indenture but also to the applicable ROC laws and regulations.

DESCRIPTION OF SHARE CAPITAL

Set forth below is certain information relating to our share capital, including brief summaries of certain provisions of our Articles of Incorporation, the ROC Securities and Exchange Law, the regulations promulgated under the ROC Securities and Exchange Law and the ROC Company Act as of the date of this offering memorandum.

General

We were incorporated on October 16, 1999 as a company limited by Shares under the ROC Company Act. Our authorized and outstanding share capital as of the date of this Offering Memorandum was NT\$10,000,000,000 and NT\$4,240,563,840 respectively, divided into 1 billion and 424,056,384 Common Shares, respectively, of which 100,000,000 Shares have been reserved for issuance in connection with the employee stock options. For more details related to our employee stock options, see Notes 6(u) and 6(v) to our consolidated financial statements as of and for the years ended December 31, 2017, 2018 and 2019 and the nine months ended September 30, 2020. Except for the employee stock options discussed above, we have not issued and have not undertaken to issue any convertible loans or other subscription options. We have not issued any convertible debt securities, exchangeable debt securities or debt securities with warrants attached.

Dividends and Distributions

Except in limited circumstances, the ROC Company Act does not permit us to distribute dividends or make any other distributions to shareholders with respect to any year in which we did not record net profits ("Earnings"). If we record any earnings, the earnings shall first be used to pay our income tax and recoup previous losses pursuant to the law, after which 10% shall be set aside as legal reserve. The remainder shall be further retained as a special reserve for the subtraction of the shareholders' equity in the current year, and thereafter the balance shall be allocated for distribution. We will allocate no more than 3% of net profits as compensation of directors and 5% to 10% as profit sharing bonus to employees in accordance with our Articles of Incorporation. Stock and cash dividend distribution ratios shall be determined based on actual Earnings in the current year and our funding plans, provided that the cash dividend ratio shall be no less than 10% of total distribution. See "Dividends and Dividend Policy."

At the annual general meeting of our shareholders, our Board of Directors submits to our shareholders for their recognition of our financial statements for the preceding fiscal year and approval of any proposal for the distribution of dividends or the making of any other distribution to shareholders from our Earnings (subject to compliance with the requirements mentioned above) for the preceding fiscal year. All Common Shares issued and outstanding and fully paid as of the relevant record date are entitled to share equally in any dividend or other distribution approved by the shareholders. Dividends may be distributed in cash, in the form of Common Shares or a combination of cash and Common Shares, as determined by our shareholders at the annual general meeting. In addition to the approval by our shareholders, approval from the relevant government authorities in the ROC and compliance with applicable ROC laws are required before we can issue any new shares as stock dividend or employee stock bonus.

In addition to permitting dividends to be paid out of Earnings, the ROC Company Act permits us to make distributions to our shareholders (if we do not have any losses) in cash or in the form of additional Common Shares from capitalization of reserves (including our legal reserve and capital surplus of premium from issuing stock and earnings from gifts received). In the case of our legal reserve, we may distribute our legal reserve by issuing new shares or cash for the portion in excess of 25% of the paid-in capital.

No dividend or distribution shall bear interest against the Company. Upon the date of declaration, we typically remit dividends into a special bank account, and the bank agency will transfer dividends to each shareholder's designated account. In limited cases, we also distribute dividends with nonnegotiable notes by registered mails. If a shareholder fails to provide the correct bank account or address for the wire transfer or registered mail and thus is unable to receive dividends, such dividends will remain as a debt due to the shareholder.

Cash dividends which are unclaimed for a period of five years from the date of the relevant notice of distribution may no longer be claimed. Such unclaimed cash dividends will, upon expiry of such five-year period, become our property. However, stock dividends are not subject to any prescription period under ROC law. Thus, uncollected stock dividends will remain in our safekeeping and continue to be claimable by the relevant shareholders.

For information on the dividend paid by us in recent years, see "Dividends and Dividend Policy." For information as to ROC taxes on dividends and other distributions, see "Taxation — ROC Taxation of Non-Residents."

Changes in Share Capital and Pre-emptive Rights

The ROC Company Act and the ROC Securities and Exchange Law provide that any change in the authorized share capital of a company limited by shares, such as ours, requires an amendment to our Articles of Incorporation approved by the shareholders at a shareholders' meeting. In addition, for a public company such as ours, the approval of the FSC is required if the paid-in capital is increased.

Our authorized but unissued Common Shares may be issued at such times and, subject to the provisions of the ROC Company Act and the ROC Securities and Exchange Law mentioned below, upon such terms as our Board of Directors may determine.

Under the ROC Company Act, when we issue new Common Shares for cash, our existing shareholders who are listed on our shareholders' register as of the record date have pre-emptive rights to subscribe for the new issue in proportion to their existing shareholdings. In addition, except in certain limited circumstances our employees, whether or not they are shareholders, have rights to subscribe for 10% to 15% of the new issue as such exact percentage is determined by our Board of Directors. Any new Common Shares that remain unsubscribed by either our existing shareholders or our employees at the end of the subscription period may be offered to the public or placed by us to specific persons.

In addition, in accordance with the ROC Securities and Exchange Law and relevant securities regulations, normally a public company such as ours, whose securities are listed on the TPEx and that intends to offer new shares for cash, must offer to the public at least 10% of these shares except under certain circumstances or exempted by the FSC. This percentage may be increased by a resolution passed at our shareholders' meeting, thereby diminishing the number of new Common Shares subject to the pre-emptive rights of existing shareholders. The pre-emptive rights provisions will not apply to an offering of new shares through a private placement approved at a shareholders' meeting.

Meetings of Shareholders

Meetings of our shareholders may be ordinary meetings or extraordinary meetings. Ordinary meetings of our shareholders are generally held in Taoyuan City, Taiwan, within six months following the end of each fiscal year. Extraordinary meetings of our shareholders may be convened by our Board of Directors by passing a board resolution or by our Board of Directors upon the written request of any shareholder or shareholders who has or have held 3% or more of our issued and outstanding Common Shares for a period exceeding one year. Extraordinary meetings of our shareholders may also be convened by an independent director or one or more shareholders who have continuously held no less than 50% of the issued and outstanding Shares for no less than three months. Notice in writing of our shareholders' meetings, stating the place, time and purpose of the meeting, must be dispatched to each shareholder of record at least 30 days (in the case of ordinary meetings) and at least 15 days (in the case of extraordinary meetings) prior to the date set for the meeting.

Voting Rights

The ROC Company Act provides that a shareholder has one vote for each share held, except that the holder of the following shares shall not vote or exercise voting rights:

(1) the shares held by the company;

- (2) the shares of a controlling company held by the controlled company whereby the controlling company holds more than half of the outstanding voting shares or total capital of such controlled company; and
- (3) the shares of a controlling company and its controlled company held by a third company where the controlling company and the controlled company hold, directly and indirectly, in the aggregate, more than half of the outstanding voting shares or total capital of such third company.

There is cumulative voting for the election of directors as required by the ROC Company Act. Candidates for the election of directors are nominated by our shareholders at our shareholders' meeting at which ballots for the election are cast. Except as otherwise provided by law, a resolution can be adopted by the holders of at least a majority of the Common Shares represented at our shareholders' meeting at which the holders of a majority of all issued and outstanding Common Shares are present. Under the ROC Company Act, however, to approve certain major corporate actions, including any amendment to the Articles of Incorporation (which is required, among other things, for any increase in the authorized share capital), the dissolution, amalgamation of a company or spin-off, the transfer of the whole or an important part of a company's business, the taking over of the whole of the business of another company or the distribution of any share dividend, a meeting of the shareholders must be convened with a quorum of holders of at least two-thirds of all issued and outstanding shares at which the shareholders of at least a majority of the shares represented at the meeting vote in favor of the corporate action. Alternatively, the ROC Company Act provides that in the case of a public company, such as ours, a resolution to approve these major corporate actions may be adopted by the holders of at least two-thirds of the shares represented at a meeting of shareholders at which holders of at least a majority of issued and outstanding shares are present.

A shareholder may be represented at our ordinary or extraordinary meetings by proxy if a valid proxy form is delivered to us at least five days prior to the commencement of the ordinary or extraordinary meeting. Voting rights attached to our Common Shares that are exercised by our shareholders' proxy shall be subject to ROC proxy regulations.

Any shareholder who has a personal interest in a matter to be discussed at our shareholders' meeting, the outcome of which may impair our interests, shall not vote or exercise voting rights nor vote or exercise voting rights on behalf of another shareholder on such matter.

Register of Shareholders and Record Dates

Our register of shareholders is maintained by Taiwan Depository & Clearing Corporation.

Under the ROC Company Act and applicable regulations, we shall, by giving advance public notice, set a record date and/or close our share register for a specified period (60 days, 30 days and 5 days, respectively, immediately before each ordinary meeting of shareholders, extraordinary meeting of shareholders and the relevant record date) in order for us to determine the shareholders that are entitled to certain rights pertaining to the Common Shares.

Other Rights of Shareholders

Under the ROC Company Act and the ROC Business Mergers and Acquisitions Act, dissenting shareholders are entitled to appraisal rights in certain major corporate actions such as a merger, share swap and a spin-off. A dissenting shareholder may request the company to redeem all of the shares owned by the shareholder at a fair price determined by mutual agreement or determined by a court order if an agreement cannot be reached. Subject to applicable law, dissenting shareholders may, among other things, exercise their appraisal rights by notifying us before or during the related shareholders' meeting and/or by raising and registering their dissent at the shareholders' meeting. In addition to appraisal rights, shareholders have the right to sue for the annulment of any resolution adopted at a shareholders' meeting where the procedures or the method of resolution were legally defective within 30 days from the date on which a shareholders' resolution is adopted.

Financial Statements

Under the ROC Company Act, 10 days before our ordinary shareholders' meeting, the statements and records of accounts prepared by our Board of Directors must be made available at our registered office in Taoyuan City for inspection by our shareholders. According to the regulations of the FSC, we are required to publish our annual and quarterly financial statements on a consolidated basis.

Transfer of Common Shares

Under the ROC Company Act, the transfer of shares is effected by endorsement and delivery of the related share certificates. Transferees must have their names and addresses registered on our shareholder's register in order to assert shareholder's rights against us. Our shareholders are also required to file their respective specimen seals with us. However, settlement of trading of share of a listed company, such as our company, is generally carried out on the book-entry system maintained by the Taiwan Depository & Clearing Corporation, or TDCC.

Acquisition of Common Shares by the Company

With limited exceptions, we may not acquire our Common Shares under the ROC Company Act.

Under the Securities and Exchange Law, we may, by a board resolution adopted by majority consent at a meeting with two-thirds of our Directors present, purchase our Common Shares on the TPEx or by a tender offer, in accordance with the procedures prescribed by the FSC, for the following purposes:

- (1) to transfer Common Shares to our employees;
- (2) to transfer Common Shares that are issuable upon conversion of bonds with warrants, preferred shares with warrants, convertible bonds, convertible preferred shares or certificates of warrants (collectively, the "convertible securities") issued by us; and
- if necessary, to maintain our credit and our shareholders' equity; provided that the Common Shares so purchased shall be canceled thereafter.

Common Shares purchased pursuant to items (1) and (2) above shall be transferred to the intended transferees, within five years after the date of such purchase, otherwise the Common Shares shall be canceled. For the Common Shares to be canceled pursuant to item (3) above, the Company shall complete amendment registration for such cancellation within six months after the date of such purchase.

We are not allowed to purchase more than 10% of our total issued and outstanding Common Shares. In addition, we may not spend more than the aggregate amount of the retained earnings, the premium from issuing stock and the realized portion of the capital reserve to purchase our Common Shares.

We may not pledge or hypothecate any purchased Common Shares. In addition, we may not exercise any shareholders' rights attaching to such Common Shares. In the event that we purchase our Common Shares on the TPEx, our affiliates (as defined in Article 369–1 of the ROC Company Act), directors, supervisors, managers and their respective spouses and minor children and/or nominees are prohibited from selling any of our Common Shares during the period in which we purchase our Common Shares.

Liquidation Rights

In the event of our liquidation, the assets remaining after payment of all our debts, liquidation expenses, taxes and distribution to holders of preferred shares, if any, will be distributed pro rata to our shareholders in accordance with the ROC Company Act.

Transfer Restrictions

The ROC Securities and Exchange Law (i) requires each director, supervisor, manager or shareholder (together with their spouses, minor children, and nominees) holding 10% or more of the shares of a public

company to report, on a monthly basis, any changes in that person's shareholding to the company and (ii) limits the number of shares that can be sold or transferred on the TWSE or TPEx by that person per day, subject to certain exemptions. The number of common shares that can be sold or transferred on the TWSE or TPEx by any such person per day is, subject to certain exemptions, either (i) for a company with no more than 30 million outstanding common shares, 0.2% of the outstanding common shares of the company; for a company with more than 30 million outstanding common shares, the aggregate amount of 0.2% of the 30 million common shares plus 0.1% of the outstanding shares exceeding 30 million common shares, or (ii) 5.0% of the average trading volume (number of common shares) on the TWSE or TPEx for the 10 consecutive trading days preceding the reporting day on which the director, supervisor, manager or a 10% shareholder reports the intended share transfer to the FSC.

In addition, they may only sell or transfer such shares on the TPEx at least three days after they have filed a notification with the FSC in connection with such sale or transfer. Such notification is not required if the number of shares to be sold or transferred within one trading day does not exceed 10,000.

TRANSFER RESTRICTIONS

Transfer Restrictions on the Bonds

Because of the following restrictions, we encourage you to consult a legal counsel prior to making any offer, resale, pledge or other transfer of the Bonds or the Shares issuable upon conversion of the Bonds.

The Bonds may not be offered or sold directly or indirectly in the ROC. The Bonds and the Shares issuable upon conversion of the Bonds have not been and will not be registered under the Securities Act and the Bonds may not be offered or sold within the United States except pursuant to an exemption from, or in a transaction not subject to, the registration requirements of the Securities Act. The Bonds are being offered and sold only outside the United States in offshore transactions in reliance on Regulation S under the Securities Act.

Except in certain limited circumstances, interests in the Bonds may only be held through interests in the Global Bond. Such interests in the Global Bond will be shown on, and transfers thereof will be effected only through, records maintained by Euroclear and Clearstream and their respective direct and indirect participants. See "Description of the Bonds."

Each owner of Bonds, by accepting delivery of the Bonds, will be deemed to have acknowledged and represented to and agreed as follows (terms used herein that are defined in Regulation S are used as defined therein):

- (1) the Bonds and the Shares issuable upon conversion of the Bonds have not been and will not be registered under the Securities Act or with any securities regulatory authority of any state of the United States and are subject to significant restrictions on transfer;
- (2) it is purchasing Bonds outside the United States in an offshore transaction meeting the requirements of Regulation S;
- it agrees (or if it is a broker-dealer, its customer has confirmed to it that such customer agrees) that it (or such customer) will not offer, sell, pledge or otherwise transfer any Bonds or the Shares, except as permitted by the applicable legend set forth in paragraph (5) below;
- (4) it understands that the Bonds and any physical certificate evidencing the Bonds will bear a legend to the following effect, unless we determine otherwise in compliance with applicable law, and that it will observe the restrictions contained therein:

THE CURRENCY-LINKED ZERO COUPON CONVERTIBLE BONDS DUE 2026 (THE "BONDS") AND THE COMMON SHARES ISSUABLE UPON CONVERSION OF THE BONDS HAVE NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND ALL APPLICABLE SECURITIES LAWS. EACH HOLDER AND BENEFICIAL OWNER, BY ITS ACCEPTANCE OF THE BONDS EVIDENCED HEREBY, REPRESENTS THAT IT UNDERSTANDS AND AGREES TO THE FOREGOING RESTRICTIONS.;

- (5) it understands that the Bonds will be represented initially by a Global Bond; and
- (6) we, the Trustee, the Transfer Agent, the Initial Purchaser and their affiliates, and others will rely upon the truth and accuracy of the foregoing acknowledgements, representations and agreements.

Each purchaser of Bonds that may wish to resell any Bonds pursuant to Regulation S is advised that application will be made for the listing of the Bonds on the SGX-ST. The SGX-ST is a "designated offshore securities market" (within the meaning of Regulation S) and, accordingly, a resale transaction could be effected in, on or through the facilities of such exchange in reliance upon the safe harbor provided by Rule 904 of Regulation S, subject to compliance with the conditions of Rule 904.

TAXATION

We are incorporated in the ROC, and our principal operating subsidiaries are located in the ROC.

ROC Taxation of Non-Residents

The following summary constitutes the material ROC tax consequences of the ownership and disposition of our Shares or the Bonds by a non-resident individual or non-resident entity (referred to here as a "non-ROC holder"). As used in the preceding sentence, a "non-resident individual" is a non-ROC national who owns the Company Shares or the Bonds and is not physically present in the ROC for 183 days or more during any calendar year, and a "non-resident entity" is a corporation or a non-corporate body that owns the Company Shares or the Bonds, is organized under the laws of a jurisdiction other than the ROC and has no fixed place of business or business agent in the ROC.

You should consult your tax advisors concerning the ROC tax consequences of owning the Bonds or Shares and the laws of any relevant taxing jurisdiction to which you are subject.

Payments on the Bonds

Payments of principal on the Bonds made by the Issuer will not be subject to ROC withholding tax.

Payments of premium (if any ever becomes payable on the Bonds) to a non-ROC holder constitute interest income derived from the ROC and, therefore, are subject to ROC withholding tax at a rate of 15% at the time of payment unless a lower withholding rate is provided under a tax treaty between ROC and the jurisdiction where the non-ROC holder is a resident. The Company has agreed to pay Additional Amounts in respect of the withholding tax on such payments. See "Description of the Bonds."

Sale of Bonds

The sale of convertible bonds which were issued and offered by ROC companies outside of the ROC is regarded as transaction relating to properties outside of the ROC and thus any resultant gains are currently not subject to ROC securities transaction tax.

Capital gains in transactions of corporate bonds issued by ROC companies are exempt from ROC income tax. Accordingly, capital gains derived from the sale of the Bonds are exempt from ROC income tax.

Conversion of Bonds

The conversion of Bonds into Common Shares will not be taxable to non-ROC holders under ROC income tax law, i.e., you will generally not recognize gain or loss on the conversion of your Bonds into the Shares except to the extent of cash received in lieu of a fractional Share. The amount of gain or loss you recognize on the receipt of cash in lieu of a fractional Share will be equal to the difference between the amount of cash you receive in respect of the fractional Share and the portion of your adjusted tax basis in the Bonds allocable to the fractional Share. The tax basis of the Shares received upon a conversion of a Bond will equal the adjusted tax basis of the Bond that was converted (excluding the portion of the tax basis allocable to any fractional Share).

In addition, securities transaction tax, gift tax and/or income tax may be imposed in relation to the converting holder's designation of other person to be the holder of Common Shares upon conversion of the Bonds.

Dividends

Dividends (whether in the form of cash or Common Shares) declared by us out of retained earnings and distributed to a non-ROC holder are subject to ROC withholding tax, currently at the rate of 21% (unless a preferable tax rate is provided under a tax treaty between the ROC and the jurisdiction where the non-ROC

holder is a resident) on the amount of the distribution (in the case of cash dividends) or on the par value of the Common Shares distributed (in the case of stock dividends). A 10% undistributed earnings tax was imposed on an ROC company for its after-tax earnings generated after January 1, 1998 which were not distributed in the following year. The undistributed earnings tax was reduced to 5% on January 1, 2018. The undistributed earnings tax so paid will further reduce the retained earnings available for future distribution. Furthermore, if and when we distribute any dividends in year 2018, for the portion of dividends out of those retained earnings on which we had paid the 10% ROC undistributed earnings tax, a credit of up to 5% of such portion of dividends may be offset against the 21% withholding tax imposed on the non-ROC holders. Starting from 2019, no undistributed earnings tax paid can be offset as a credit against the 21% withholding tax.

Distributions of our Shares or cash out of capital reserves are not subject to the ROC withholding tax, except under limited circumstances.

Capital Gains

Starting from January 1, 2016, capital gains realized from the sale or disposal of our Shares are exempt from ROC income tax under Article 4-1 of the ROC Income Tax Act.

Securities Transaction Tax

Securities transaction tax will be imposed on the seller at the rate of 0.3% of the transaction price upon a sale of our Shares. Transfers of our Shares (received from conversion of the Bonds) are subject to ROC securities transaction tax.

Subscription Rights

Distributions of statutory subscription rights for our Shares in compliance with the ROC Company Act are currently not subject to ROC tax. Proceeds derived from sales of statutory subscription rights evidenced by securities are subject to securities transaction tax, currently at the rate of 0.3% of the gross amount received. Non-ROC holders are exempt from income tax on capital gains from the sale of statutory subscription rights evidenced by securities. Proceeds derived from sales of statutory subscription rights which are not evidenced by securities are not subject to securities transaction tax but are subject to income tax at a fixed rate of 20% of the income if the seller is a non-ROC holder. Subject to compliance with ROC law, we have the sole discretion to determine whether statutory subscription rights will be evidenced by securities.

Estate and Gift Tax

Subject to allowable exclusions, deductions and exemptions, ROC estate tax is payable on any property within the ROC left by a deceased, and ROC gift tax is payable on any property within the ROC donated by an individual. Estate tax and gift tax are currently payable at the progressive rates of 10%, 15% and 20%. Under the ROC Estate and Gift Tax Act, common shares issued by ROC companies are deemed located in the ROC without regard to the location of the owner. A holder of Bonds or Shares will be considered to own common shares for this purpose.

Tax Treaty

At present, the ROC has income tax treaties with Indonesia, Singapore, New Zealand, Australia, the United Kingdom, South Africa, Gambia, Eswatini, Malaysia, Macedonia, the Netherlands, Senegal, Sweden, Belgium, Denmark, Israel, Vietnam, Paraguay, Hungary, France, India, Slovakia, Switzerland, Germany, Thailand, Kiribati, Luxembourg, Austria, Italy, Japan, Canada and Poland. These tax treaties may limit the rate of ROC withholding tax on interest or dividends paid with respect to bonds or common shares issued by ROC companies. Accordingly, holders of our Bonds and Shares who wish to apply a reduced withholding tax rate that is provided under a tax treaty should consult their own tax advisers concerning such application.

PLAN OF DISTRIBUTION

UBS AG Hong Kong Branch is the sole bookrunner and the Initial Purchaser of this offering.

Subject to the terms and conditions stated in a purchase agreement, dated as of January 7, 2021, entered into between us and the Initial Purchaser, the Initial Purchaser has agreed to purchase, and we have agreed to sell to the Initial Purchaser, the following principal amounts of the Bonds:

Initial Purchaser	Principal Amount
UBS AG Hong Kong Branch	500,000,000
Total	500,000,000

The purchase agreement provides that the obligations of the Initial Purchaser to purchase the Bonds included in this offering are subject to certain conditions, including receipt of certain legal opinions, and entitles the Initial Purchaser to terminate it in certain circumstances prior to payment being made to us.

The Initial Purchaser or its affiliates may purchase the Bonds for its own account and enter into transactions, including (i) credit derivatives including asset swaps, repackaging and credit default swaps relating to the Bonds and/or our securities or (ii) equity derivatives and stock loan transactions relating to the Common Shares at the same time as the offer and sale of the Bonds or in secondary market transactions. Such transactions would be carried out as bilateral trades with selected counter-parties and separately from any existing sale or resale of the Bonds to which this offering memorandum relates (notwithstanding that such selected counterparties may also be purchasers of the Bonds). The Initial Purchaser or its affiliates may purchase Bonds and be allocated Bonds for asset management and/or proprietary purposes and not with a view to distribution. The Initial Purchaser or its affiliates are not expected to disclose such transactions or the extent of any such investment, except as required by any legal or regulatory obligation to do so. These transactions may involve a substantial portion of the Bonds.

The Bonds and the Shares (to be delivered upon conversion of the Bonds) have not been and will not be registered under the Securities Act or any state securities laws and may not be offered or sold within the United States except in transactions exempt from, or not subject to, the registration requirements of the Securities Act. See "Transfer Restrictions." The Bonds will not be offered or sold directly or indirectly in the ROC, or to, or for the account or benefit of, any ROC person.

Application will be made for the listing and quotation of the Bonds on the SGX-ST. However, we cannot assure you that the prices at which the Bonds will sell in the market after this offering will not be lower than the initial offering price or that an active trading market for the Bonds will develop and continue after this offering.

For a period of 90 days after the Closing Date, without the prior written consent of the Initial Purchaser of this offering, we will not (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, or file with the United States Securities and Exchange Commission a registration statement under the Securities Act relating to, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Common Stock or any such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise, other than the Bonds to be offered and sold in this offering and the shares of Common Stock issuable upon conversion of the Bonds. Notwithstanding the foregoing, we may (A) issue stock dividends consistent with past practice, (B) implement stock splits, (C) transfer Common Stock repurchased by us to our employees consistent with past practice.

The Initial Purchaser has performed commercial banking, investment banking and advisory services for us from time to time for which it has received customary fees and reimbursement of expenses. The Initial

Purchaser may, from time to time, engage in transactions with and perform services for us in the ordinary course of its business for which it may receive customary fees and reimbursement of expenses. In addition, affiliates of the Initial Purchaser are lenders, and in some cases agents or managers for the lenders, under our credit facility.

In the purchase agreement, we have made customary representations and warranties and agreed to indemnify the Initial Purchasers against among others, certain liabilities with respect to our representations and warranties, the offering memorandum in relation to the Bonds and services rendered by the Initial Purchaser under the purchase agreement.

Notice to prospective investors in the ROC and restriction on related party subscription under ROC law

The Bonds may not be offered or sold directly or indirectly in the ROC, or to, or for the account or benefit of, any ROC person.

Under applicable ROC laws and regulations, we and the Initial Purchaser are prohibited from offering and selling the Bonds to the "related parties" as set forth in the Guidelines Governing the Preparation of Financial Reports by Securities Issuers and the persons as specified in Section 36 of the ROC Securities Association Rules Governing Underwriting and Resale of Securities by Securities Firms. Therefore, each subscriber or purchaser of the Bonds described in this offering memorandum will be deemed to have acknowledged and represented to us and the Initial Purchaser that he, she or it is not: (a) a related party to us, (b) a business entity that is invested by us using equity method in our accounting reporting, (c) a business entity that invests in our company and uses equity method in its accounting reporting, (d) a company whose chairperson of the board or president is the same as that of our company or is the spouse thereof, (e) a foundation with one-third of its total paid-in funds donated by us, (f) our Director, president, vice-president, assistant vice president, and other department head under the immediate supervision by our president, (g) a spouse of our Director or president, (h) a director or employee of any member of the underwriting syndicate or a spouse thereto, and (i) a person subscribing for the Bonds on behalf of or for the benefit of any person set forth in items (b) to (h) above.

Notice to prospective investors in the European Economic Area

In relation to each member state of the European Economic Area that has implemented the Prospectus Directive (each, a "Relevant Member State"), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the "Relevant Implementation Date"), an offer of securities described in this offering memorandum may not be made to the public in that Relevant Member State, other than:

- to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the relevant dealer or dealers nominated by the Issuer for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of securities shall require the Issuer or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any of the securities described in this offering memorandum in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Relevant Member State, by any measure implementing the Prospectus Directive in that Relevant Member State, and the expression Prospectus Directive means Directive 2003/71/EC (and amendments

thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in each Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

Notice to prospective investors in the United Kingdom

This offering memorandum is only being distributed to, and is only directed at, persons in the United Kingdom that are qualified investors within the meaning of Article 2(1)(e) of the Prospectus Directive that are also (i) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the "Order"), or (ii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a "relevant person"). This offering memorandum and its contents should not be distributed, published or reproduced (in whole or in part) or disclosed by recipients to any other persons in the United Kingdom. Any person in the United Kingdom that is not a relevant person should not act or rely on this document or any of its contents.

Notice to prospective investors in France

Neither this offering memorandum nor any other offering material relating to the securities described in this offering memorandum has been submitted to the clearance procedures of the Autorité des Marchés Financiers or of the competent authority of another member state of the European Economic Area and notified to the Autorité des Marchés Financiers. The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France. Neither this offering memorandum nor any other offering material relating to the securities has been or will be:

- released, issued, distributed or caused to be released, issued or distributed to the public in France; or
- used in connection with any offer for subscription or sale of the securities to the public in France. Such offers, sales and distributions will be made in France only;
- to qualified investors (investisseurs qualifiés) and/or to a restricted circle of investors (cercle restreint d'investisseurs), in each case investing for their own account, all as defined in, and in accordance with, articles L.411-2, D.411-1, D.411-2, D.734-1, D.744-1, D.754-1 and D.764-1 of the French Code monétaire et financier;
- to investment services providers authorized to engage in portfolio management on behalf of third parties; or
- in a transaction that, in accordance with article L.411-2-II-10-or-20-or 30 of the French Code monétaire et financier and article 211-2 of the General Regulations (Règlement Général) of the Autorité des Marchés Financiers, does not constitute a public offer (appel public à l'épargne).

The securities may be resold directly or indirectly, only in compliance with articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French Code monétaire et financier.

Notice to prospective investors in Hong Kong

The securities may not be offered or sold in Hong Kong by means of any document other than (i) 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 (ii) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong (the "C(WUMP)O") or which do not constitute an offer to the public within the meaning of the C(WUMP)O; and no advertisement, invitation or document relating to the securities may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than

with respect to securities which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the SFO and any rules made thereunder.

Notice to prospective investors in Japan

The securities offered in this offering memorandum have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Law No. 25 of 1948) (as amended) (the "FIEA"). Accordingly, the securities have not been offered or sold and will not be offered or sold, directly or indirectly, in Japan or to, or for the account of, any resident of Japan, or to others for re-offering or re-sale, directly or indirectly in Japan or to, for the benefit of, any resident of Japan, except pursuant to any exemption from the registration requirements of the FIEA and otherwise in compliance with the FIEA and other applicable provisions of Japanese laws, regulations and governmental guidelines. As used in this paragraph, "resident of Japan" means any person residing in Japan, including any corporation or other entity organized under the laws of Japan.

Notice to prospective investors in Singapore

This offering memorandum has not been registered as a prospectus with the Monetary Authority of Singapore (the "MAS"). Accordingly, this offering memorandum and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Bonds may not be circulated or distributed, nor may the Bonds be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (as defined in Section 4A of the SFA) pursuant to Section 274 of the SFA; (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or to 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); or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the Bonds are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (i) 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
- (ii) 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,

the securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six (6) months after that corporation or that trust has acquired the Bonds pursuant to an offer made under Section 275 of the SFA except:

- (2) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (3) where no consideration is or will be given for the transfer;
- (4) where the transfer is by operation of law;
- (5) as specified in Section 276(7) of the SFA; or
- (6) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Any reference to the SFA is a reference to the Securities and Futures Act, Chapter 289 of Singapore and a reference to any term as defined in the SFA or any provision in the SFA is a reference to that term or

provision as modified or amended from time to time including by such of its subsidiary legislation as may be applicable at the relevant time.

Notice to prospective investors in the United Arab Emirates

This offering memorandum is not intended to constitute an offer, sale or delivery of shares or other securities under the laws of the United Arab Emirates, or the UAE. The Bonds have not been and will not be registered under Federal Law No. 4 of 2000 concerning the Emirates Securities and Commodities Authority and the Emirates Security and Commodity Exchange, or with the UAE Central Bank, the Dubai Financial Market, the Abu Dhabi Securities Market or with any other UAE exchange.

The offering of the Bonds has not been approved or licensed by the UAE Central Bank or any other relevant licensing authorities in the UAE, and do not constitute a public offer of securities in the UAE in accordance with the Commercial Companies Law, Federal Law No. 8 of 1984 (as amended) or otherwise.

In relation to its use in the UAE, this offering memorandum is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose. The Bonds may not be offered or sold directly or indirectly to the public in the UAE.

Notice to prospective investors in the PRC

This offering memorandum is not intended to constitute a public offer of the Bonds, whether by way of sale or subscription, in the PRC. The Bonds are not being offered and may not be offered or sold, directly or indirectly, in the PRC to or for the benefit of, legal or natural persons of the PRC other than to QDIIs in the PRC. Pursuant to the Measures for the Administration of Overseas Securities Investment by Qualified Domestic Institutional Investors, with the exception of QDIIs in the PRC, the Bonds may, subject to the laws and regulations of the relevant jurisdictions, only be offered or sold to non-PRC natural or legal persons in any country other than the PRC.

Notice to prospective investors in Canada

This offering memorandum constitutes an "exempt offering document" as defined in and for the purposes of applicable Canadian securities laws. No prospectus has been filed with any securities commission or similar regulatory authority in Canada in connection with the offer and sale of the Bonds. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon this offering memorandum or on the merits of the Bonds and any representation to the contrary is an offense.

The Bonds may be sold only to purchasers in Canada purchasing, or deemed to be purchasing, as principal that (i) are "accredited investors," as defined in National Instrument 45-106. Prospectus Exemptions ("NI 45-106"), or in Ontario, as defined in subsection 73.3 (1) of the Securities Act (Ontario), and (ii) are "permitted clients," as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations.

The offer and sale of the Bonds in Canada is being made on a private placement basis only and is exempt from the requirement that the Company prepares and files a prospectus under applicable Canadian securities laws. Any resale of the Bonds acquired by a Canadian purchaser in this offering must be made in accordance with applicable Canadian securities laws, which may vary depending on the relevant jurisdiction, and which may require resales to be made in accordance with Canadian prospectus requirements, pursuant to a statutory exemption from the prospectus requirements, in a transaction exempt from the prospectus requirements or otherwise under a discretionary exemption from the prospectus requirements granted by the applicable local Canadian securities regulatory authority. These resale restrictions may under certain circumstances apply to resales of the Bonds outside of Canada.

Securities legislation in certain of the Canadian jurisdictions provides certain purchasers of securities pursuant to an offering memorandum (such as this offering memorandum), including where the distribution involves an "eligible foreign security" as such term is defined in Ontario Securities Commission Rule 45-

501 Ontario Prospectus and Registration Exemptions and in Multilateral Instrument 45-107 Listing Representation and Statutory Rights of Action Disclosure Exemptions, as applicable, with a remedy for damages or rescission, or both, in addition to any other rights they may have at law, where the offering memorandum, or other offering document that constitutes an offering memorandum, and any amendment thereto, contains a "misrepresentation" as defined under applicable Canadian securities laws. These remedies, or notice with respect to these remedies, must be exercised or delivered, as the case may be, by the purchaser within the time limits prescribed under, and are subject to limitations and defenses under, applicable Canadian securities legislation. In addition, these remedies are in addition to and without derogation from any other right or remedy available at law to the purchaser.

Canadian purchasers are advised that this offering memorandum has been prepared in reliance on section 3A.3 of National Instrument 33-105 Underwriting Conflicts ("NI 33-105"). Pursuant to section 3A.3 of NI 33-105, this offering memorandum is exempt from the requirement that the Company and the Initial Purchaser provide Canadian purchasers with certain conflicts of interest disclosure pertaining to "connected issuer" related issuer" relationships that may exist between the Company and the Initial Purchaser as would otherwise be required pursuant to subsection 2.1(1) of NI 33-105.

Prospective Canadian purchasers are hereby notified that: (a) we may be required to provide personal information pertaining to the purchasers as required to be disclosed in Schedule I of Form 45-106F1 under NI 45- 106 (including, without limitation, the purchaser 's name, address, telephone number and the aggregate purchase price of any Bonds purchased) ("personal information"), which Form 45-106F1 may be required to be filed by us under NI 45-106, (b) such personal information may be delivered to the Ontario Securities Commission (the "OSC") in accordance with NI 45-106, (c) such personal information is collected indirectly by the OSC under the authority granted to it under the securities legislation of Ontario, (d) such personal information is collected for the purposes of the administration and enforcement of the securities legislation of Ontario, and (e) the public official in Ontario who can answer questions about the OSC's indirect collection of such personal information is the Administrative Support Clerk at the OSC, Suite 1903, Box 55, 20 Queen Street West, Toronto, Ontario M5H 3S8, Telephone: (416) 593-3684. Prospective Canadian purchasers that purchase Bonds in this offering will be deemed to have authorized the indirect collection of the personal information by the OSC, and to have acknowledged and consented to its name, address, telephone number and other specified information, including the aggregate purchase price paid by the purchaser, being disclosed to other Canadian securities regulatory authorities, and to have acknowledged that such information may become available to the public in accordance with requirements of applicable Canadian laws.

Any discussion of taxation and related matters contained in this offering memorandum does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a Canadian purchaser when deciding to purchase the Bonds and, in particular, does not address any Canadian tax considerations. No representation or warranty is hereby made as to the tax consequences to a resident, or deemed resident, of Canada of an investment in the Bonds or with respect to the eligibility of the Bonds for investment by such purchaser under relevant Canadian federal and provincial legislation and regulations.

LEGAL MATTERS

Certain legal matters with respect to the Bonds will be passed upon for us by Baker & McKenzie as to ROC law, and for the Initial Purchaser by Sullivan & Cromwell (Hong Kong) LLP as to U.S. Federal and New York law.

INDEPENDENT AUDITORS

The consolidated financial statements as of and for the years ended December 31, 2017, 2018 and 2019 included in this offering memorandum have been audited by KPMG, Taiwan, independent auditors, to the extent and for the periods indicated in their report appearing herein. Such reports express an unqualified opinion on the financial statements. KPMG, Taiwan are located at 68F, Taipei 101 Tower, No. 7, Sec. 5, Xinyi Road, Taipei, 11049, Taiwan. KPMG, Taiwan are a member of the Taiwan CPA Association.

With respect to the unaudited condensed consolidated financial statements as of and for the nine months ended September 30, 2019 and 2020 included in this offering memorandum, KPMG, Taiwan, our independent auditors, have reported that they have applied limited procedures in accordance with professional standards for a review of such financial statements in accordance with ROC Statement of Auditing Standards No. 65, Review of Financial Information Performed by the Independent Auditor of the Entity. However, the separate review report included in this offering memorandum states that they did not audit and do not express an opinion on such financial statements. In addition, the review report includes the paragraphs of Basis for Qualified Conclusion stating that certain investments accounted for using the equity method were not reviewed. Insofar as they relate to the amounts of these equity accounted investments included in the consolidated financial statements, they were based solely on non-reviewed financial statements. Accordingly, the degree of reliance on their report on such financial statements should be restricted in light of the limited nature of the review procedures applied.

GENERAL INFORMATION

We are registered with the MOEA. Our registration number is 70752257. Our Shares trade on the TPEx under the stock code 3105. According to Article 2 of our Articles of Incorporation, we can conduct any business not prohibited or restricted by ROC law and the scope of our business includes, among other things: electronic components manufacturing industry and electronic material wholesale business. Our registered office is located at No.69, Keji 7th Road, Hwaya Technology Park, Guishan District, Taoyuan City, Taiwan. The Bonds have been accepted for clearance through the facilities of Euroclear and Clearstream. Certain information about the Bonds is set forth below:

	ISIN number	Common Code number
Bonds	XS2275382286	227538228

Application will be made for the listing and quotation of the Bonds on the SGX-ST. The SGX-ST assumes no responsibility for the correctness of any statements made, opinions expressed or reports contained in this offering memorandum. Approval in-principle for the listing and quotation of the Bonds is not to be taken as an indication of the merits of this Offering, the Company, the Group, its subsidiaries, or any of their associated companies or the Bonds. For so long as the Bonds are listed on the SGX-ST and the rules of the SGX-ST so require, the Bonds will be traded on the SGX-ST in a minimum board lot size of US\$200,000.

We have obtained all necessary consents, approvals and authorizations in connection with the issue of the Bonds, including the approvals of the CBC and the FSC which have been duly obtained and are, and will be on the Closing Date, in full force and effect.

The issue of the Bonds was authorized by the resolutions of our Board of Directors passed on November 27, 2020.

Except as disclosed, there has been no significant change in our financial or trading position since September 30, 2020 or any material adverse change in our financial position or prospects since September 30, 2020.

Neither we nor any of our subsidiaries is involved in any litigation or arbitration proceedings which may have, or have had during the period recently preceding the date of this offering memorandum, a material adverse effect on our financial position, nor, so far as any of our subsidiaries is aware, are any such proceedings pending or threatened except as may be otherwise disclosed or referred to herein.

No company in which we have a direct or indirect holding of more than 50% of capital or issued shares holds any Shares.

Trades for the Bonds on the SGX-ST will be cleared through Clearstream and Euroclear in accordance with their respective rules and operating procedures.

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

SUMMARY OF CERTAIN MATERIAL DIFFERENCES BETWEEN TAIWAN IFRS AND IFRS

Our audited financial statements as of and for the years ended December 31, 2017, 2018 and 2019 are prepared and presented in accordance with Taiwan IFRS, which differs in certain material respects from IFRS. Certain material differences between Taiwan IFRS applicable to us and IFRS are summarized below. The summary should not be taken as inclusive of all Taiwan IFRS/IFRS differences. Additionally, no attempt has been made to quantify all differences or identify all disclosure, presentation or classification differences that would affect the manner in which events and transactions are presented in the financial statements or notes thereto. Further, no attempt has been made to identify future differences between Taiwan IFRS and IFRS as a result of prescribed changes in accounting standards. Regulatory bodies that promulgate Taiwan IFRS and IFRS have significant projects ongoing that could affect future comparisons such as this

If we were to prepare a complete reconciliation between Taiwan IFRS and IFRS additional accounting and disclosure differences might have come to our attention.

Taiwan IFRS Subject

Tax on undistributed earnings

Under Taiwan IFRS. companies in Taiwan are subject to 10% surtax on profits earned and retained since December 31, 1997. In addition, the surtax rate applicable to the undistributed portion of earnings made of 2018 and thereafter has been changed from 10% to 5%. If the retained profits are distributed to the shareholders in the fiscal year following the year of earnings, the surtax could be avoided. If the earnings are not fully distributed to the shareholders, surtax is recorded as income tax expenses in the fiscal year when shareholders' decision on distribution is made.

IFRS

Under IFRS, current and deferred tax assets and liabilities are measured at the tax rate applicable to the undistributed profits. Consequently, tax on undistributed earnings should be accrued during the period the earnings arise and adjusted to the extent of the distributions approved by the shareholders in the following year.

The information set forth above does not in any way attempt to quantify the effects of the aforementioned differences between Taiwan IFRS and IFRS and the impact of such differences would have on net income or shareholders' equity under IFRS.

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Stock Code:3105

(English Translation of Consolidated Financial Statements and Report Originally Issued in Chinese.)

WIN SEMICONDUCTORS CORP. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

With Independent Auditors' Report For the Years Ended December 31, 2018 and 2017

Address: No.69, Keji 7th Rd., Hwaya Technology Park, Guishan Dist., Taoyuan City, Taiwan

Telephone: 886-3-397-5999

The independent auditors' report and the accompanying consolidated financial statements are the English translation of the Chinese version prepared and used in the Republic of China. If there is any conflict between, or any difference in the interpretation of the English and Chinese language independent auditors' report and consolidated financial statements, the Chinese version shall prevail.

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Representation Letter

The entities that are required to be included in the combined financial statements of WIN Semiconductors Corp. as of and for the year ended December 31, 2018, under the "Criteria Governing the Preparation of Affiliation Reports, Consolidated Business Reports, and Consolidated Financial Statements of Affiliated Enterprises" are the same as those included in the consolidated financial statements prepared in conformity with International Financial Reporting Standards No. 10 endorsed by the Financial Supervisory Commission, "Consolidated Financial Statements." In addition, the information required to be disclosed in the combined financial statements is included in the consolidated financial statements. Consequently, WIN Semiconductors Corp. and its subsidiaries do not prepare a separate set of combined financial statements.

Company name: WIN Semiconductors Corp.

Chairman: CHEN, CHIN-TSAI

Date: March 21, 2019

Independent Auditors' Report

To the Board of Directors of WIN Semiconductors Corp.:

Opinion

We have audited the consolidated financial statements of WIN Semiconductors Corp. and its subsidiaries ("the Group"), which comprise the consolidated balance sheets as of December 31, 2018 and 2017, the consolidated statements of comprehensive income, changes in equity and cash flows for the years ended December 31, 2018 and 2017, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at December 31, 2018 and 2017, and its consolidated financial performance and its consolidated cash flows for the years ended December 31, 2018 and 2017 in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and with the International Financial Reporting Standards ("IFRSs"), International Accounting Standards ("IASs"), interpretations as well as related guidance endorsed by the Financial Supervisory Commission of the Republic of China.

Basis for Opinion

We conducted our audit in accordance with the Regulations Governing Auditing and Certification of Financial Statements by Certified Public Accountants and the auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the Certified Public Accountants Code of Professional Ethics in Republic of China ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis of our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2018. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. In our judgment, the key audit matters we communicated in the auditors' report were as follows:

1. Evaluation of inventory

Please refer to Note 4(h) "Inventories" for accounting policies, Note 5(a) for accounting assumptions, judgments and estimation uncertainty of inventories, and Note 6(e) for the amount of loss on valuation of inventories of the consolidated financial statements.

Due to the high industry demand and rapid fluctuation of the price of precious metals, the Group stored a significant volume of the said material, which resulted in slow turnover of inventories. Therefore, the Group cannot obtain sufficient information on inventories that were sold or used on the reporting date. Since the technology changes rapidly, the inventory may be out of date or may not conform to market demand, resulting in a risk wherein the carrying amount of inventories may exceed its net realizable value. Consequently, the evaluation of inventory is identified as a key matter in our audit.

How the matter was addressed in our audit:

Our principal audit procedures included: Testing the accuracy of the estimations of inventories at the lower of cost and net realizable value. Referring to the recent selling price and considering the amount of written-off inventories in the subsequent events to evaluate the appropriateness of the amount of loss on valuation of inventories or obsolescence. Analyzing the historical accuracy of judgments, including inspecting the amount of loss on valuation of inventories or obsolescence recognized in prior year and with reference to actual disposal to assess rationality of the judgments of the current period. Moreover, comparing with the provision for inventories valuation and obsolescence made in the current year to evaluate the appropriateness of the assumptions.

2. Business combination

Please refer to Note 4(u) "Business combination" for accounting policies, Note 5(b) for accounting assumptions, judgments and estimation uncertainty of assessment of business combination, and Note 6(j) for the illustration of business combination of consolidated financial statements.

Since the Group had controlled over Phalanx Biotech Group, Inc., the Group subscribed the new shares contributed by Phalanx Biotech Group, Inc. and became its largest shareholder on July 12, 2018. For the requirement of the accounting policies regarding business combination, the management of WIN Semiconductors Corp. and its subsidiaries made judgments in determining the fair value of the consideration transferred, assets acquired and non-controlling interest. There is a significant judgment involved in determining the fair value if pre-existing of the acquiree, assets acquired and liabilities assumed given the specialized nature of the acquired businesses and their related technologies. Thus, the business combination is identified as a key matter in our audit.

How the matter was addressed in our audit:

Our principal audit procedures included: Challenging the valuation assumptions and methodologies, which were derived from the independent external purchase price allocation report, with the assistance of our own valuation specialists, to assess the asset valuation models used and their key inputs. Enquiring from management its performance of operation to verify whether or not it is consistent with the input assumptions on external market information in order to identify the reasonableness of assumptions underlying the identification of the fair value if the separate identifiable assets acquired and liabilities assumed in the independent external purchase price allocation report.

Other Matter

WIN Semiconductors Corp. has prepared its parent-company-only financial statements as of and for the years ended December 31, 2018 and 2017, on which we have issued an unmodified opinion.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and with the IFRSs, IASs, IFRIC as well as SIC endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is also responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance (including members of the Audit Committee) are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' 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 the auditing standards generally accepted in the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- 1. Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- 2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- 3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- 4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- 5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- 6. Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year ended December 31, 2018 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Ya-Ling Chen and Mei-Yen Chen.

KPMG

Taipei, Taiwan (The Republic of China) March 21, 2019

Notes to Readers

The accompanying consolidated financial statements are intended only to present the consolidated statement of financial position, financial performance and its cash flows in accordance with the accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such consolidated financial statements are those generally accepted and applied in the Republic of China.

The independent auditors' report and the accompanying consolidated financial statements are the English translation of the Chinese version prepared and used in the Republic of China. If there is any conflict between, or any difference in the interpretation of the English and Chinese language independent auditors' report and consolidated financial statements, the Chinese version shall prevail.

(English Translation of Consolidated Financial Statements and Report Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

(Expressed in Thousands of New Taiwan Dollars) Consolidated Balance Sheets December 31, 2018 and 2017

December 31, 2018 December 31, 2017	Amount % Amount %		1,093,074 3 1,698,485 4	2,469,630 7 2,802,419 8	352,056 1	<u>265,679</u> <u>1</u> <u>2224,505</u> <u>1</u>	3,828,383 11 5,077,465 14		5,802,600 16 5,905,480 16	- 33,489 -	224,235 1 206,273	6,026,835 17 6,145,242 16	9,855,218 28 11,222,707 30		4,238,144 12 4,226,664 11	9,199,357 26 9,052,896 25	31 1	2 1.467.968	71 2	1 235.530	72 25.								8 - 35,459,603 - 100 - 37,027,452 - 100
	Liabilities and Equity	Current liabilities:	Notes and accounts payable	Other payables (note 7)	Long-term liabilities, current portion (notes 6(p) and 8)	Other current liabilities (notes 3(a) and 6(w))	Total current liabilities	Non-Current liabilities:	Long-term borrowings (notes 6(p) and 8)	Deferred tax liabilities (note 6(s))	Other non-current liabilities (note 6(r))	Total non-current liabilities	Total liabilities	Equity (notes $3(a)$, $6(b)$, $6(h)$, $6(r)$, $6(s)$, $6(t)$ and $6(u)$):	Ordinary shares	Capital surplus	Retained earnings	Other equity interests	Total equity attributable to owners of parent	Non-controlling interests	Total equity								Total liabilities and equity
			2170	2200	2320	2399			2540	2570	2600				3110	3200	3300	3400		36XX									
117	%		21	3	2	4	-	10	,	-	45					2		,		_	39	4	_			5		55	100
December 31, 2017	Amount		7,849,123	1,301,307	1,661,562	1,551,390	182,249	3,744,681	96,738	400,064	16,787,114					1,793,869	,	22,915	62,200	327,269	14,468,268	1,441,902	257,844	37,450	77,200	1,640,765	110,656	20,240,338	37,027,452
81	%		16	,	,	4		11	,	-	32		7	1	7			,	,	7	44	4	7			7	·	89	 3 3
December 31, 2018	Amount		5,462,173	103,263	,	1,422,365	,	3,907,390	103,289	336,049	11,334,529		722,405		2,356,132		29,900	,	,	532,808	15,568,252	1,421,528	586,953	31,059	135,802	2,643,202	97,033	24,125,074	35,459,603
	Assets	Current assets:	Cash and cash equivalents (note 6(a))	Current financial assets at fair value through profit or loss (note 6(b))	Current available-for-sale financial assets (note $6(b)$)	Notes and accounts receivable, net (notes $3(a)$, $6(c)$ and $6(w)$)	Other receivables due from related parties (notes 6(d) and 7)	Inventories (note 6(e))	Current biological assets (note 6(f))	Other current assets (notes 6(d) and 6(n))	Total current assets	Non-current assets:	Non-current financial assets at fair value through profit or loss (note 6(b))	Non-current financial assets at fair value through other comprehensive	income (note $6(b)$)	Non-current available-for-sale financial assets (note 6(b))	Non-current financial assets at amortized cost (note 6(b))	Non-current financial assets at cost (note $6(b)$)	Non-current investments in debt instrument without active market (note 6(b))	Investments accounted for using equity method (note 6(g))	Property, plant and equipment (notes 6(j), 6(k) and 8)	Investment property (notes 6(l) and 8)	Intangible assets (notes 6(j) and 6(m))	Non-current biological assets (note 6(f))	Deferred tax assets (note 6(s))	Prepayments for business facilities (note 7)	Other non-current assets (notes 6(n) and 8)	Total non-current assets	Total assets \$=
			1100	11110	1125	1170	1210	1310	1400	1470			1510		1517	1523	1535	1543	1546	1550	1600	1760	1780	1830	1840	1915	1990		

(English Translation of Consolidated Financial Statements and Report Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

Consolidated Statements of Comprehensive Income

For the years ended December 31, 2018 and 2017

(Expressed in Thousands of New Taiwan Dollars, Except for Earnings Per Common Share)

		2018		2017	
		Amount	%	Amount	%
4000	Operating revenue (note 6(w))	\$ 17,310,716	100	17,086,355	100
5000	Operating costs (notes $6(e)$, $6(f)$, $6(g)$, $6(k)$, $6(m)$, $6(q)$, $6(r)$, $6(u)$, $6(x)$, 7 and 12)	(11,895,545)	(69)	(10,758,385)	(63)
	Gross profit from operating	5,415,171	31	6,327,970	37
	Operating expenses (notes $6(c)$, $6(k)$, $6(l)$, $6(m)$, $6(q)$, $6(r)$, $6(u)$, $6(x)$, 7 and 12):	·			
6100	Selling expenses	(238,957)	(1)	(197,524)	(1)
6200	Administrative expenses	(997,791)	(6)	(868,302)	(5)
6300	Research and development expenses	(973,921)	(5)	(692,809)	(4)
6450	Gains (losses) on expected credit impairment	840	-	-	-
	Total operating expenses	(2,209,829)	(12)	(1,758,635)	(10)
	Net operating income	3,205,342	19	4,569,335	27
	Non-operating income and expenses (notes $6(c)$, $6(g)$, $6(i)$, $6(j)$, $6(q)$, $6(y)$ and 7):				
7010	Other income	245,718	1	202,740	1
7020	Other gains and losses	415,834	2	(30,093)	-
7050	Finance costs	(22,456)	-	(54,946)	-
7770	Shares of losses of associates and joint ventures accounted for using equity method	(109,815)		(158,357)	(1)
	Total non-operating income and expenses	529,281	3	(40,656)	
7900	Profit before tax	3,734,623	22	4,528,679	27
7950	Total tax expense (note 6(s))	(668,561)	(4)	(813,384)	(5)
	Profit	3,066,062	18	3,715,295	22
8300	Other comprehensive income:				
8310	Components of other comprehensive income that will not be reclassified to profit or loss (notes 6(r), 6(s) and 6(t)):				
8311	Remeasurements of defined benefit plans	(34,051)	-	201	-
8316	Unrealized losses from investments in equity instruments measured at fair value through other				
	comprehensive income	(352,044)	(2)	-	-
8349	Income tax related to components of other comprehensive income that will not be reclassified to profit or loss	7,730		(34)	
	Total components of other comprehensive income (losses) that will not be reclassified to profit or loss	(378,365)	(2)	167	
8360	Components of other comprehensive income that will be reclassified to profit or loss (notes 6(g), 6(s) and 6(t)):				
8361	Exchange differences on translation of foreign financial statements	46,105	-	(74,329)	(1)
8362	Unrealized gains (losses) on valuation of available-for-sale financial assets	-	-	807,998	5
8370	Shares of other comprehensive income of associates and joint ventures accounted for using equity method	(33,317)	-	9,263	-
8399	Income tax related to components of other comprehensive income that will be reclassified to profit or loss	· 			
	Total components of other comprehensive income (loss) that will be reclassified to profit or loss	12,788		742,932	4
8300	Other comprehensive income, net	(365,577)	<u>(2</u>)	743,099	4
8500	Total comprehensive income	\$ 2,700,485	16	4,458,394	26
	Profit (loss) attributable to:				
8610	Profit attributable to owners of parent	3,124,454	18	3,764,200	22
8620	Losses attributable to non-controlling interests	(58,392)		(48,905)	
		\$ 3,066,062	18	3,715,295	22
	Comprehensive income (loss) attributable to:				
8710	Comprehensive income, attributable to owners of parent	\$ 2,811,518	16	4,470,438	26
8720	Comprehensive loss, attributable to non-controlling interests	(111,033)		(12,044)	
		\$ <u>2,700,485</u>	16	4,458,394	26
	Earnings per common share (expressed in dollars)(note 6(v))				
9750	Basic earnings per share	\$ 7.39		9.34	
9850	Diluted earnings per share	\$ 7.35		9.30	

(English Translation of Consolidated Financial Statements and Report Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

(Expressed in Thousands of New Taiwan Dollars) For the years ended December 31, 2018 and 2017 Consolidated Statements of Changes in Equity

Particular Par	'						Equity attribu	Equity attributable to owners of parent	parent						
Continue								0	ther equity interes	it					
Continue			'		Retained earnings		Exchange	Unrealized gains (losses) on financial assets at							
5 4,000d 3,315,72 10,127 1,11,27 1,11,27 1,11,290 <th< th=""><th></th><th>Ordinary</th><th></th><th> ~</th><th></th><th>Total retained</th><th>differences on translation of foreign financial</th><th></th><th>Unrealized gains (losses) on available-for-sale financial assets</th><th>Other unearned compensation for restricted shares of employees</th><th></th><th>Treasury charee</th><th></th><th>lon-controlling interests</th><th>Totaleanity</th></th<>		Ordinary		~		Total retained	differences on translation of foreign financial		Unrealized gains (losses) on available-for-sale financial assets	Other unearned compensation for restricted shares of employees		Treasury charee		lon-controlling interests	Totaleanity
Column C	Balance at January 1, 2017	\$ 4,076,664	137		8,308,684	9,376,801	1,719		760,178	-	İڃا	(347,660)	17,626,439	691,445	18,317,884
Comparison Com	Appropriation and distribution of retained earnings:														
Total Control	Legal reserve appropriated	,	,	311,277	(311,277)	1	•	•	•	•	•			,	
crume 31,2017 31,277 3,74,200 4,74,200	Cash dividends of ordinary shares		,			(1,811,999)		,					(1,811,999)	ļ	(1,811,999)
7.7. The control of the cont				311,277		(1,811,999)							(1,811,999)	ļ	(1,811,999)
Control Cont	Profit (losses) for the year ended December 31, 2017				3,764,200	3,764,200					,	,	3,764,200	(48,905)	3,715,295
Compact Comp	Other comprehensive income for the year ended December 31, 2017	,		,	167	167	(101,927)	,	807,998	,	706,071	,	706,238	36,861	743,099
Column C	Total comprehensive income for the year ended December 31, 2017			,	3,764,367	3,764,367	(101,927)	,	807,998	,	706,071	,	4,470,438	(12,044)	4,458,394
Column C	Issue of shares	200,000	5,340,000		,		,	,	,	,	,	,	5,540,000	,	5,540,000
Column C	Purchase of treasury shares	,	,		•	1	•	•	•	•	,	(96,317)	(96,317)	,	(96,317)
resulterment 4.226.664 9.022.896 1.379.394 9.442.293 10.021.687 10	Retirement of treasury shares	(50,000)	(45,841)		(348,136)	(348,136)		•	•	•	,	443,977		,	
4226,664 9,025,896 1,379,394 9,442,293 1,081,187 (100,208) 1,401,883 1,568,176 2,666,373 25,569,215	Changes in ownership interests in subsidiaries				(159,346)		1	,		,		•	(159,346)		(159,346)
4226,664 9052,896 1,379,394 9,442,293 10,821,687 1,606,189 1,506,176 1,401,839 1,506,176 1,401,839 1,401	Changes in non-controlling interests													(443,871)	(443,871)
4256.664 9.052.896 1379,394 9.608.630 10.098.024 (100,208) 1,401,839 10.098.024 (100,208) 1,4	Balance at December 31, 2017 Effects of retrospective application and retrospective restatement	4,226,664	9,052,896	1,379,394	9,442,293	10,821,687	(100,208)	_			1,467,968 (166,337)		25,569,215	235,530	25,804,745
8 Carbor 31, 2018	Equity at beginning of period after adjustments	4,226,664	9,052,896	1,379,394		10,988,024	(100,208)				1,301,631		25,569,215	235,530	25,804,745
- 376,420 (376,420) -	Appropriation and distribution of retained earnings:														
- -	Legal reserve appropriated	,	,	376,420	(376,420)	,		,		,	,	,			,
- 376,420 (3.335,085) - - (2.988,665) - (2.988,665) - (2.988,665) - (2.988,665) -	Cash dividends of ordinary shares				(2,958,665)	-		1		'			(2,958,665)		(2,958,665)
1.00 1.00		1		376,420		(2,958,665)		1	1	1			(2,958,665)		(2,958,665)
1.480 163.87 1.755.814 21.480 1.1.785.814 2.4.281.48 2.4.281.44 2.4	Profit (losses) for the year ended December 31, 2018				3,124,454	3,124,454		,	,	,	,		3,124,454	(58,392)	3,066,062
- (21,165) - (14,21) - (14	Other comprehensive income for the year ended December 31, 2018	,			(26,321)	(26,321,		(352,044)			(286,615)		(312,936)	(52,641)	(365,577)
- (21,163)	Total comprehensive income for the year ended December 31, 2018				3,098,133	3,098,133	65,429				(286,615)		2,811,518	(111,033)	2,700,485
- 635 - 635	Disposal of investments accounted for using equity method	,	(21,163)	,	,	,	(1,421)	,	,	,	(1,421)	,	(22,584)	,	(22,584)
11,480 163.877 17,049 17,049 17,049 17,049 17,049	Changes in ownership interests in subsidiaries	,		,	(40,573)	(40,573,	1	,	,	,	,	,	(40,573)	,	(40,573)
11,480 163,877 (175,357) (175,357) (170,49) (170,49)	Adjustment to share of changes in equities associates		635	1		,		1		1		•	635		63.5
3.112 - 3.112 - 3.11405 - 11.78,324 - 91,405 - 11.78,324 - 91,405 - 11.78,324 - 91,405 - 11.78,324 - 91,90,357 - 1755,814 - 94,22,510 - 11.178,324 - 36,300	Issuance of restricted shares of employees	11,480	163,877	1		,		1		(175,357)		•			,
3,112 - 3,698 - 3,112 - 3,695 - 3,112 - 3,112 - 3,695 - 3,112	Compensation cost arising from restricted shares of stock issued to employees			,		,		,		17,049		,	17,049		17,049
3,112 3,695 3,112 3,695 5 4,238,144 9,199,357 1,755,814 9,422,510 11,178,324 (36,200) 958,390 (158,308) 763,882 . 25,379,707 224,678 25,60	Changes in non-controlling interests	,				,						,		96,486	96,486
s 4.238,144 9,199,357 1,755,814 9,422,510 11,78,324 (36,200) 958,390 - (158,308) 763,882 - 25,379,707 224,678	Stock option compensation cost of subsidiary	,	3,112	,	,	,						,	3,112	3,695	6,807
\$ 4,238,144 9,199,357 1,755,814 9,422,510 11,178,324 (36,200) 958,390 - (158,308) 763,882 - 25,379,707 224,678	Disposal of investments in equity instruments designated at fair value through other comprehensive income				91,405	91,405		(91,405)			(91,405)				
	Balance at December 31, 2018	\$ 4,238,144	9,199,357	1,755,814	9,422,510	11,178,324	(36,200)			(158,308)			25,379,707	224,678	25,604,385

(English Translation of Consolidated Financial Statements and Report Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

Consolidated Statements of Cash Flows

For the years ended December 31, 2018 and 2017

(Expressed in Thousands of New Taiwan Dollars)

		2018	2017
Cash flows from (used in) operating activities: Profit before tax	\$	3,734,623	4,528,679
Adjustments:	ų.	3,734,023	1,520,075
Adjustments to reconcile profit (loss):		2.450.550	2 51 4 512
Depreciation expense Amortization expense		3,158,550 63,588	2,514,612 47,398
Reversal of expected credit gains		(840)	-
Net losses on financial assets or liabilities at fair value through profit or loss		57,848	16,411
Interest expense		22,456	54,946
Interest income Dividend income		(59,064) (101,910)	(26,121) (87,859)
Compensation cost arising from share-based payments		23,856	-
Shares of losses of associates and joint ventures accounted for using equity method		117,837	166,787
(Gains) losses on disposal of property, plant and equipment Gains on disposal of investments		(2,210)	1,809
Impairment losses on financial assets		(286,514)	(163,028) 2,635
Changes in biological assets at fair value		(1,139)	17,455
Prepayments for business facilities transferred to expenses		15	
Total adjustments to reconcile profit (loss)		2,992,473	2,545,045
Changes in operating assets and liabilities: Changes in operating assets:			
Decrease (increase) in financial assets at fair value through profit or loss		23,485	(831)
Decrease (increase) in notes and accounts receivable		135,566	(482,676)
Increase in inventories		(150,018)	(1,026,689)
Increase in biological assets Decrease (increase) in other current assets		(12,397) 81,000	(92,323) (105,198)
Total changes in operating assets		77,636	(1,707,717)
Changes in operating liabilities:			
Increase (decrease) in notes and accounts payable		(607,933)	912,344
Increase in other payables Increase in other current liabilities		143,905 10,804	371,790 2,397
Increase in other non-current liabilities		1,827	1,361
Total changes in operating liabilities		(451,397)	1,287,892
Total changes in operating assets and liabilities		(373,761)	(419,825)
Cash inflow generated from operations Dividends received		6,353,335 4,642	6,653,899 5,200
Income taxes paid		(878,459)	(765,072)
Net cash flows from operating activities		5,479,518	5,894,027
Cash flows from (used in) investing activities:			
Acquisition of financial assets at fair value through other comprehensive income Proceeds from disposal of financial assets at fair value through other comprehensive income		(84,704) 244,675	-
Proceeds from disposal of non-current financial assets at amortized cost		32,300	-
Acquisition of financial assets at fair value through profit or loss		(477,593)	(1,200,963)
Proceeds from disposal of financial assets at fair value through profit or loss		1,486,555	109,289
Proceeds from disposal of current available-for-sale financial assets Acquisition of non-current available-for-sale financial assets		-	181,000 (229,014)
Proceeds from disposal of non-current available-for-sale financial assets		-	150,745
Proceeds from disposal of investments in debt instrument without active market		-	30,400
Acquisition of investments accounted for using equity method		(389,970)	(30,330)
Proceeds from disposal of investments accounted for using equity method Proceeds from capital reduction of investments accounted for using equity method		21,925	39,833
Acquisition of property, plant and equipment		(3,188,631)	(2,694,713)
Proceeds from disposal of property, plant and equipment		4,334	3,947
Decrease (increase) in other receivables due from related parties		181,200	(181,200)
Acquisition of intangible assets Net cash inflows (outflows) from business combination		(46,528) 56,790	(83,782) (36,959)
Acquisition of investment properties		-	(1,258)
Decrease (increase) in other non-current assets		24,295	(8,784)
Increase in prepayments for business facilities		(2,403,075)	(1,299,756)
Interest received Dividends received		63,792 97,268	22,232 82,659
Net cash flows used in investing activities		(4,377,367)	(5,146,654)
Cash flows from (used in) financing activities:		(1,011,000)	(0,2.0,00.2)
Proceeds from long-term debt		4,891,000	5,963,500
Repayments of long-term debt Increase (decrease) in other non-current liabilities		(5,346,025)	(4,320,979)
Cash dividends paid		(617) (2,958,665)	14,255 (1,811,999)
Proceeds from issuing shares		-	5,540,000
Payments to acquire treasury shares		-	(114,515)
Interest paid		(22,945)	(53,096)
Changes in non-controlling interests Net cash flows from (used in) financing activities	-	(3,506,022)	(462,802)
Effect of exchange rate changes on cash and cash equivalents		16,921	4,754,364 (40,757)
Net increase (decrease) in cash and cash equivalents		(2,386,950)	5,460,980
Cash and cash equivalents at beginning of period		7,849,123	2,388,143
Cash and cash equivalents at end of period	s	5,462,173	7,849,123

(English Translation of Consolidated Financial Statements and Report Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

Notes to the Consolidated Financial Statements

For the years ended December 31, 2018 and 2017

(Expressed in Thousands of New Taiwan Dollars, Unless Otherwise Specified)

(1) Company history:

WIN Semiconductors Corp. (the "Company") was incorporated on October 16, 1999 as a company limited by shares and registered under the Ministry of Economic Affairs, R.O.C. The address of the Company's registered office is No. 69, Keji 7th Rd., Hwaya Technology Park, Guishan Dist., Taoyuan City, Taiwan.

The main operation the Company and its subsidiaries (together referred to as "the Group") are as follows:

- (a) Researching, developing, manufacturing, and selling of GaAs wafers.
- (b) Developing hog farming technology and trading.
- (c) Researching, manufacturing and selling of high density gene chips, biochip optical readers and micro-electrophoresis analyzers.

(2) Approval date and procedures of the consolidated financial statements:

These consolidated financial statements was authorized for issued by the Board of Directors as of March 21, 2019.

(3) New standards, amendments and interpretations adopted:

(a) The impact of the International Financial Reporting Standards ("IFRSs") endorsed by the Financial Supervisory Commission, R.O.C. ("FSC") which have already been adopted.

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2018.

New, Revised or Amended Standards and Interpretations	Effective date per IASB
Amendment to IFRS 2 "Clarifications of Classification and Measurement of Share-based Payment Transactions"	January 1, 2018
Amendment to IFRS 4 "Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts"	January 1, 2018
IFRS 9 "Financial Instruments"	January 1, 2018
IFRS 15 "Revenue from Contracts with Customers"	January 1, 2018
Amendment to IAS 7 "Statement of Cash Flows-Disclosure Initiative"	January 1, 2017
Amendment to IAS 12 "Income Taxes-Recognition of Deferred Tax Assets for Unrealised Losses"	January 1, 2017
Amendment to IAS 40 "Transfers of Investment Property"	January 1, 2018

New, Revised or Amended Standards and Interpretations	Effective date per IASB
Annual Improvement to IFRS Standards 2014-2016 Cycle:	
Amendment to IFRS 12	January 1, 2017
Amendment to IFRS 1 and Amendment to IAS 28	January 1, 2018
IFRIC 22 "Foreign Currency Transactions and Advance Consideration"	January 1, 2018

Except for the following items, the Group believes that the adoption of the above IFRSs would not have any material impact on its consolidated financial statements. The extent and impact of signification changes are as follows:

(i) IFRS 15 "Revenue from Contracts with Customers"

IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognized. It replaces the existing revenue recognition guidance, including IAS 18 "Revenue" and IAS 11 "Construction Contracts". The Group applies this standard retrospectively with the cumulative effect, it need not restate those contracts, but instead, continues to apply IAS 11, IAS 18 and the related Interpretations for comparative reporting period. The Group recognizes the cumulative effect upon the initially application of this standard as an adjustment to the opening balance of retained earnings on January 1, 2018.

The Group uses the practical expedients for completed contracts, which means it need not restate those contracts that have been completed on January 1, 2018.

The following are the nature and impacts on changing of accounting policies:

1) Sales of goods

For the sale of products, revenue is currently measured at the fair value of the consideration received or receivable, net of returns, trade discounts and volume rebates. Revenue is recognized when persuasive evidence exists, usually in the form of an executed sales agreement, that the significant risks and rewards of ownership have been transferred to the customer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the goods, and the amount of revenue can be measured reliably. Under IFRS 15, revenue will be recognized when a customer obtains control of the goods. Based on the Group's assessment, since the timing of the delivery of goods upon arrival to a customer and the related risks and rewards of ownership transfer are broadly similar, the Group expect no significant influences on its profit or loss and cash flows.

2) Impacts on financial statements

The following table summarize the impacts of adopting IFRS15 on the Group's consolidated financial statements:

		Dec	ember 31, 201	8	Ja	nuary 1, 2018	
Impacted items on the consolidated balance sheet	pi ac	Balance rior to the loption of IFRS 15	Impact of changes in accounting policies	Balance upon adoption of IFRS 15	Balance prior to the adoption of IFRS 15	Impact of changes in accounting policies	Balance upon adoption of IFRS 15
Notes and accounts receivable, net	\$	1,388,115	34,250	1,422,365	1,551,390	41,966	1,593,356
Impact on assets			34,250			41,966	
Current refund liabilities (Note)	\$	-	34,250	34,250	-	41,966	41,966
Deferred revenue (Note)		112,694	(112,694)	-	99,514	(99,514)	-
Current contract liabilities (Note)		-	112,694	112,694	-	99,514	99,514
Impact on liabilities			34,250			41,966	

(Note) Recognized under other current liabilities.

(ii) IFRS 9 "Financial Instruments"

IFRS 9 replaces IAS 39 "Financial Instruments: Recognition and Measurement" which contains classification and measurement of financial instruments, impairment and hedge accounting. Additionally, the Group adopted the consequential amendments to IFRS 7 "Financial Instruments: Disclosures" that are applied to disclosures about 2018 but generally have not been applied to comparative information.

The detail of new significant accounting policies and the nature and effect of the changes to previous accounting policies are set out below:

1) Classification of financial assets and financial liabilities

IFRS 9 contains three principal classification categories for financial assets: measured at amortized cost, fair value through other comprehensive income (FVOCI) and fair value through profit or loss (FVTPL). The classification of financial assets under IFRS 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. The standard eliminates the previous IAS 39 categories of held to maturity, loans and receivables and available-for-sale financial assets. Under IFRS 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification. For an explanation of how the Group classifies and measures financial assets and accounts for related gains and losses under IFRS 9, please refer to note 4(g).

The adoption of IFRS 9 did not have any a significant impact on the Group's accounting policies on financial liabilities.

2) Impairment of financial assets

IFRS 9 replaces the 'incurred loss' model in IAS 39 with the 'expected credit loss' (ECL) model. The new impairment model applies to financial assets measured at amortized cost, contract assets and debt investments at FVOCI, but not to investments in equity instruments. Under IFRS 9, credit losses are recognized earlier than they are under IAS 39 – please see note 4(g).

3) Transition

The adoption of IFRS 9 have been applied retrospectively, except as described below:

- Differences in the carrying amounts of financial assets resulting from the adoption of IFRS 9 are recognized in retained earnings and other equity as on January 1, 2018. Accordingly, the information presented for 2017 does not generally reflect the requirements of IFRS 9 and therefore is not comparable to the information presented for 2018 under IFRS 9.
- The following assessments have been made on the basis of the facts and circumstances that existed at the date of initial application:
 - The determination of the business model within which a financial asset is held.
 - The designation and revocation of previous designations of certain financial assets and financial liabilities as measured at FVTPL.
 - The designation of certain investments in equity instruments not held for trading as at FVOCI.
- · If an investment in a debt security had low credit risk at the date of initial application of IFRS 9, then the Group assumed that the credit risk on its asset will not increase significantly since its initial recognition.
- 4) Classification of financial assets on the date of initial application of IFRS 9

The following table shows the original measurement categories under IAS 39 and the new measurement categories under IFRS 9 for each class of the Group's financial assets as of January 1, 2018.

	IAS39		IFRS9	
Financial Assets	Measurement categories	Carrying Amount	Measurement categories	Carrying Amount
Cash and cash equivalents	Loans and receivables (Note 5)	\$ 7,849,123	Amortized cost	\$ 7,849,123
Debt instruments	Fair value through profit or loss	1,164,777	Fair value through profit or loss	1,164,777
	Available-for-sale (Note 1)	612,978	Fair value through profit or loss	612,978
	Investments in debt instrument without active market (Note 2)	62,200	Amortized cost	62,200
Equity instruments	Fair value through profit or loss (Note 3)	136,530	Fair value through profit or loss	136,530
	Available-for-sale (Note 4)	2,842,453	Fair value through other comprehensive income	2,842,453
	Financial assets at cost (Note 4)	22,915	Fair value through other comprehensive income	22,915
Trade and other receivables-net	Loans and receivables (included related parities) (Note 5)	1,949,638	Amortized cost	1,949,638
Other financial assets (Refundable deposits)	Loans and receivables (Note 5)	51,748	Amortized cost	51,748

The following table reconciles the carrying amounts of financial assets under IAS 39 to the carrying amounts under IFRS 9 upon transition to IFRS 9 on January 1, 2018.

Fair value through profit or loss		017.12.31 IAS 39 Carrying Amount	Reclassifications	Remeasurements	2018.1.1 IFRS 9 Carrying Amount	2018.1.1 Adjustment in Retained Earnings	2018.1.1 Adjustment in Other Equity
Fair value through profit or loss	\$	1,301,307	-	-	1,301,307	-	-
Debt instruments-from available-for-sale (Note 1)	_		612,978	-	612,978	19,854	(19,854)
Total	\$	1,301,307	612,978		1,914,285	19,854	(19,854)
Fair value through other comprehensive income							
Available-for-sale (including measured at cost)	\$	3,478,346	(3,478,346)	-	-	-	-
Available-for-sale (including measured at cost) to FVOCI (Note 4)	_	 .	2,865,368	<u> </u>	2,865,368	146,483	(146,483)
Total	\$	3,478,346	(612,978)	<u> </u>	2,865,368	146,483	(146,483)

- Note 1: The debt instruments are categorized as available-for-sale under IAS 39 and should not be used for other purpose such as receiving the contract's cash flow. Therefore, these assets have been classified as financial assets at FVTPL under IFRS 9. When application of IFRS 9's classification requirements on January 1, 2018 resulting in an increase and decrease of \$19,854 thousand in retained earnings and other equity interest, respectively.
- Note 2: Debt instruments that were previously classified as investment in debt instrument without active market are now classified at amortized cost. The Group intends to hold the assets to maturity to collect contractual cash flows and these cash flows consist solely of payments of principal and interest on the principal amount outstanding.

- Note 3: Under IAS 39, these equity securities were designated as at FVTPL because they were managed on a fair value basis and their performance was monitored on this basis. These assets have been classified as mandatorily measured at FVTPL under IFRS 9.
- Note 4: These equity securities (including financial assets measured at cost) represent investments that the Group intends to hold for the long term for strategic purposes. As permitted by IFRS 9, the Group has designated these investments at the date of initial application as measured at FVOCI. Consequently, all fair value gains and losses will be reported in other comprehensive income. No impairment losses would be recognized in profit or loss and no gains or losses will be reclassified to profit or loss on disposal. When application of IFRS 9's classification requirements on January 1, 2018 resulting in an increase and decrease of \$146,483 thousand in retained earnings and other equity interest, respectively.
- Note 5: Cash and cash equivalents, notes and accounts receivable, other receivables (including related parties) and other financial assets that were classified as loans and receivables under IAS 39 are now classified at amortized cost.

(iii) Amendment to IAS 7 "Disclosure Initiative"

The amendment requires disclosures that enable users of financial statements to evaluate changes in liabilities arising from financing activities, including both changes arising from cash flow and non-cash changes.

To satisfy the new disclosure requirements, the Group present a reconciliation between the opening and closing balances for liabilities with changes arising from financing activities as note 6(ac).

(b) The impact of IFRS endorsed by the FSC but not yet effective

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2019 in accordance with Ruling No. 1070324857 issued by the FSC on July 17, 2018:

New, Revised or Amended Standards and Interpretations	Effective date per IASB		
IFRS 16 "Leases"	January 1, 2019		
IFRIC 23 "Uncertainty over Income Tax Treatments"	January 1, 2019		
Amendment to IFRS 9 "Prepayment Features with Negative Compensation"	January 1, 2019		
Amendment to IAS 19 "Plan Amendment, Curtailment or Settlement"	January 1, 2019		
Amendment to IAS 28 "Long-term Interests in Associates and Joint Ventures"	January 1, 2019		
Annual Improvements to IFRS Standards 2015-2017 Cycle	January 1, 2019		

Except for the following items, the Group believes that the adoption of the above IFRSs would not have any material impact on its consolidated financial statements. The extent and impact of signification changes are as follows:

• IFRS 16 "Leases"

IFRS 16 replaces the existing leases guidance, including IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", SIC-15 "Operating Leases – Incentives" and SIC-27 "Evaluating the Substance of Transactions Involving the Legal Form of a Lease".

IFRS 16 introduces a single and an on-balance sheet lease accounting model for lessees. A lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. In addition, the nature of expenses related to those leases will now be changed since IFRS 16 replaces the straight-line operating lease expense with a depreciation charge for right-of-use assets and interest expense on lease liabilities. There are recognition exemptions for short-term leases and leases of low-value items. The lessor accounting remains similar to the current standard – i.e. the lessors will continue to classify leases as finance or operating leases.

1) Determining whether an arrangement contains a lease

On transition to IFRS 16, the Group will choose to apply the definition of a lease to all its contracts whether a contract is, or contains, a lease.

2) Transition

As a lessee, the Group can apply the standard using either of the following:

- retrospective approach; or
- modified retrospective approach with optional practical expedients.

The Group plans to initially apply IFRS 16 using the modified retrospective approach. Therefore, the cumulative effect of adopting IFRS 16 will be recognized as an adjustment to the opening balance of retained earnings at January 1, 2019, with no restatement of comparative information.

The Group will apply the following practical expedients:

- apply a single discount rate to a portfolio of leases with similar characteristics.
- adjust the right-of-use assets, based on the amount reflected in IAS 37 onerous contract provision, immediately before the date of initial application, as an alternative to an impairment review.
- apply the exemption not to recognize the right-of-use assets and liabilities to leases with lease term that ends within 12 months of the date of initial application.
- exclude the initial direct costs from measuring the right-of-use assets at the date of initial application.

(Continued)

- use hindsight when determining the lease term if the contract contains options to extend or terminate the lease.
- 3) So far, the most significant impact identified is that the Group will have to recognize the right-of-use assets and the lease liabilities for the operating leases of its lands, staff dormitories, parking lot, offices and factories. The Group estimated that the right-of-use assets and the lease liabilities to increase by \$337,816 thousand and \$290,061 thousand respectively, and prepaid rent expenses, guarantee deposits and intangible assets decrease by \$13,939 thousand, \$1,902 thousand and \$31,914 thousand, respectively.

The actual impacts of adopting the standards may change depending on the economic conditions and events which may occur in the future.

(c) The impact of IFRS issued by IASB but not yet endorsed by the FSC

As of the date of the following IFRSs that have been issued by the IASB, but not yet endorsed by the FSC:

	Effective date per
New, Revised or Amended Standards and Interpretations	IASB
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets Between an Investor and Its Associate or Joint Venture"	Effective date to be determined by IASB
IFRS 17 "Insurance Contracts"	January 1, 2021
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020

The Group is evaluating the impact on its consolidated financial position and consolidated financial performance upon the initial adoption of the abovementioned standards or interpretations. The results thereof will be disclosed when the Group completes its evaluation.

(4) Summary of significant accounting policies:

The accompanying consolidated financial statements are the English translation of the Chinese version prepared and used in the Republic of China. If there is any conflict between, or any difference in the interpretation of the English and Chinese language consolidated financial statements, the Chinese version shall prevail.

The significant accounting policies presented in the consolidated financial statements are summarized below. Except for those specifically indicated, the following accounting policies were applied consistently throughout the periods presented in the consolidated financial statements.

(a) Statement of compliance

These consolidated financial statements have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers (hereinafter referred to as "the Regulations") and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations endorsed and issued into effect by the Financial Supervisory Commission, R.O.C..

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(b) Basis of preparation

(i) Basis of measurement

Except for the following significant accounts, the consolidated financial statements have been prepared on a historical cost basis:

- 1) Financial instruments measured at fair value through profit or loss;
- 2) Available-for-sale financial assets and fair value through other comprehensive income are measured at fair value;
- 3) The net defined benefit liabilities are recognized as the present value of the defined benefit obligation, and the effect of the plan assets ceiling disclosure in note 4(r) less plan assets.

(ii) Functional and presentation currency

The functional currency of each Group entity is determined based on the primary economic environment in which the entity operates. The consolidated financial statements are presented in New Taiwan dollars, which is the Company's functional currency. All financial information presented in New Taiwan dollars has been rounded to the nearest thousand.

(c) Basis of consolidation

(i) Principles of preparation of the consolidated financial statements

The consolidated financial statements comprise the Company and its subsidiaries. When the Company is exposed to the variable remuneration from investing on other individual or sharing the rights of the remuneration, also, is able to influence the rewards, the Company controls the individual.

The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. Transactions, balances and any other unrealized profit or loss between the Company and other subsidiaries are all eliminated while preparing the consolidated financial reports. Comprehensive income (loss) of subsidiaries belongs to owner of the Company and the non-controlling interest respectively. Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

Financial reports of subsidiaries had been adjusted properly and the accounting policies used in subsidiaries are same to the Group's.

Changes in the Group's ownership interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. Differences between the amount paid or received from fair value and the adjustment of the non-controlling interest are directly realized to the equity and belong to the owners of the Company.

(ii) Losing control of subsidiaries

When the Group loses control of its subsidiaries, the assets (including goodwill) and liabilities and any non-controlling interests of the former subsidiary at their carrying amounts at the date when control is lost will be derecognized and any investment retained in the former subsidiary at its fair value at the date when control is lost will be remeasured in the consolidated financial statement.

The difference of disposal gain or loss is between the aggregate of (i) the fair value of the consideration received and any investment retained in the former subsidiary at its fair value at the date when control is lost and (ii) the assets (including goodwill) and liabilities and any non-controlling interests of the former subsidiary at their carrying amounts at the date when control is lost. The Group accounts for all amounts recognized in other comprehensive income in relation to that subsidiary on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

(iii) List of subsidiaries in the consolidated financial statements:

			Shareh	olding
Name of investor	Name of subsidiary	Principal activity	December 31, 2018	December 31, 2017
The Company	WIN SEMI. USA, INC.	Marketing	100.00 %	100.00 %
The Company	Win Semiconductors Cayman Islands Co., Ltd. (abbrev. Win Cayman)	Selling of GaAs wafers	100.00 %	100.00 %
The Company	WIN Venture Capital Corp. (abbrev. WVC)	Investment activities	100.00 %	100.00 %
The Company	Phalanx Biotech Group, Inc. (abbrev. PBL)	Researching, manufacturing and selling	39.89 %	-
		of high density gene chips and testing service	(Note 1)	
WVC	Phalanx Biotech Group, Inc. (abbrev. PBL)	Researching, manufacturing and selling	5.82 %	-
		of high density gene chips and testing service	(Note 1)	
Win Cayman	Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd. (abbrev. Chainwin Cayman) (Note 4)	Investment activities	94.71 %	88.14 %
	Etd. (abblev. Chaniwin Cayman) (Note 4)		(Note 3)	(Note 2)
Chainwin Cayman	Jiangsu Chainwin Kang Yuan Agriculture Development Co., Ltd.	Developing hog farming technology and trading	100.00 %	100.00 %
Chainwin Cayman	Jiangsu Merit / CM Agriculture Development Co., Ltd.	Developing hog farming technology and	90.79 %	60.00 %
		trading	(Note 5)	
Chainwin Cayman	Jiangsu Merit / Cofcojoycome Agriculture Development	Developing hog farming technology and	60.00 %	60.00 %
	Co., Ltd.	trading	(Note 6)	
Chainwin Cayman	Jiangsu Chainwin Agriculture and Animal Technology Co., Ltd.	Farm feed development and trading	100.00 %	100.00 %
Chainwin Cayman	Formosa Fortune Group Co., Ltd. (abbrev. Fortune BVI)	Investment activities	- %	100.00 %
			(Note 7)	
Chainwin Cayman	Jiangsu Merit Runfu Agriculture Development Co., Ltd.	Developing hog farming technology and	100.00 %	50.44 %
		trading	(Note 8)	
Fortune BVI	Jiangsu Merit Runfu Agriculture Development Co., Ltd.	Developing hog farming technology and	-	49.56 %
		trading	(Note 8)	
PBL	PhalanxBio, Inc.	Selling of high density gene chips and testing service	100.00 %	-
PBL	Phalanx Biotech Limited Inc. (abbrev. PBL (HK))	Investment activities	100.00 %	-
PBL (HK)	Onearray Biotech (Kunshan) Co., Ltd.	Selling of high density gene chips and testing service	100.00 %	-

Note 1: The Company and WVC do not hold more than half of the equity shares of PBL. However, the Company subscribed its new shares contribution and became the largest shareholder of PBL and obtained control over it on July 12, 2018; hence, PBL became a subsidiary of the Group since then. Please refer to note 6(j) for the further information.

Note 2: On July 1 and October 6, 2017, Win Cayman subscribed the new shares contributed by Chainwin Cayman for USD \$5,067 thousand (NTD \$154,149 thousand) and USD \$20,000 thousand (NTD \$603,400 thousand), respectively. Also, Win Cayman acquired issued shares of Chainwin Cayman amounting to USD 19,153 thousand (NTD 569,983 thousand) on December 18, 2017. Please refer to note 6(h) for the further information.

- Note 3: On January 19 and August 24, 2018, Win Cayman subscribed the new shares contributed by Chainwin Cayman for USD \$11,888 thousand (NTD \$346,297 thousand) and USD \$40,000 thousand (NTD \$1,228,800 thousand), respectively. Plus, on January 22 and December 27, 2018, Chainwin Cayman repurchased its own shares amounting to USD \$100 thousand (NTD \$2,913 thousand) and USD \$2,250 thousand (NTD \$69,120 thousand), respectively, which were cancelled afterwards. Please refer to note 6(h) for the further information.
- Note 4: Chainwin Agriculture and Animal Technology (Cayman Islands) Ltd. renamed Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd. in June 2018.
- Note 5: On September 26 and November 29, 2018, Chainwin Cayman subscribed new share contributed by Jiangsu Merit / CM Agriculture Development Co., Ltd. for USD \$1,900 thousand (NTD \$58,007 thousand) and USD \$9,800 thousand (NTD \$302,134 thousand). Please referred to note 6(h) for the further information.
- Note 6: The meeting of shareholders of Jiansu Merit/ Cofcojoycome Agriculture Development Co., Ltd. had decided to dissolve the company on October 24, 2018 and has been liquidated on January 25, 2019, respectively.
- Note 7: Formosa Fortune Group Co., Ltd. has been liquidated on November 30, 2018.
- Note 8: Due to its organization restructuring, Chainwin Cayman acquired 49.56% of the equity of Jiangsu Merit Runfu Agriculture Development Co., Ltd. from Fortune BVI for USD \$1,271 thousand in the third quarter of 2018.
- (iv) List of subsidiaries which are not included in the consolidated financial statements: None.

(d) Foreign currency

(i) Foreign currency transaction

Transactions in foreign currencies are translated to the respective functional currencies of the Group at the exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are retranslated to the functional currency at the exchange rate at that date. The foreign currency gain or loss on monetary items is the difference between the amortized cost in the functional currency at the beginning of the year adjusted for the effective interest and the payments during the period, and the amortized cost in foreign currency translated at the exchange rate at the reporting date.

Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate of the date the fair value was determined. Non-monetary items in a foreign currency that are measured based on historical cost are translated using the exchange rate at the date of translation.

Foreign currency differences arising from retranslation are recognized in profit or loss, except for the following differences which are recognized in other comprehensive income that arises from the retranslation:

- Fair value through other comprehensive income (available for sale) equity investment;
- A financial liability designated as a hedge of the net investment in a foreign operation to the extent that the hedge is effective; or
- Qualifying cash flow hedges to the extent that the hedge is effective.

(ii) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to the reporting currency of the consolidated financial statements at the exchange rates of the reporting date. The income and expenses of foreign operations are translated to the reporting currency of the consolidated financial statements at average rate. Foreign currency differences are recognized in other comprehensive income, and presented in the foreign currency translation reserve in equity.

However, if the foreign operation is a non-wholly owned subsidiary, then the relevant proportion of the translation difference is allocated to non-controlling interests. When a foreign operation is disposed of such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. When the Group disposes any part of its interest in a subsidiary that includes a foreign operation while retaining control, the relevant proportion of the cumulative amount is reattributed to non-controlling interest. When the Group disposes of only part of investment in an associate of joint venture that includes a foreign operation while retaining significant or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely predicted in the foreseeable future, the foreign currency gains and losses arising from such items are considered to a part of investment in the foreign operation and are recognized in other comprehensive income.

(e) Classification of current and non-current assets and liabilities

An entity shall classify an asset as current when:

- (i) It expects to realize the asset, or intends to sell or consume it in its normal operating cycle;
- (ii) It holds the asset primarily for the purpose of trading;
- (iii) It expects to realize the asset within twelve months after the reporting period; or
- (iv) If the asset is cash and cash equivalent (unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period).

An entity shall classify all other assets as non-current.

An entity shall classify a liability as current when:

- (i) It expects to settle the liability in its normal operating cycle;
- (ii) It holds the liability primarily for the purpose of trading;
- (iii) The liability is due to be settled within twelve months after the reporting period; or

(iv) It does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issuance of equity instruments that do not affect its classification.

(f) Cash and cash equivalents

Cash comprised of cash on hand and cash in bank. Cash equivalents consist of highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. Time deposits, which meet the above criteria and for the purpose of fulfilling short-term commitments instead of the purpose of investing activities or others, are categorized as cash equivalents.

(g) Financial instruments

(i) Financial assets (policy applicable from January 1, 2018)

The Group classifies its financial assets into the following categories: measured at amortized cost, financial asset at fair value through other comprehensive income (FVOCI) and financial asset at fair value through profit or loss (FVTPL). Regular way purchase or sales of financial assets shall be recognized and derecognized, as applicable, using trade day.

The Group shall reclassify all affected financial assets only when it changes its business model for managing its financial assets.

1) Financial assets measured at amortized cost

A financial asset is measured at amortized cost if both of the following conditions are met and is not designated as at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A financial asset measured at amortized cost is initially recognized at fair value, plus any directly attributable transaction costs. These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses, and impairment losses are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.

2) Fair value through other comprehensive income (FVOCI)

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an instrument-by-instrument basis.

A financial asset measured at FVOCI is initially recognized at fair value, plus any directly attributable transaction costs. These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses, and impairment losses, deriving from debt investments are recognized in profit or loss; whereas dividends deriving from equity investments are recognized as income in profit or loss, unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses of financial assets measured at FVOCI are recognized in other comprehensive income. On derecognition, gains and losses accumulated in other comprehensive income of debt investments are reclassified to profit or loss. However, gains and losses accumulated in other comprehensive income of equity investments are reclassified to retained earnings instead of profit or loss.

Dividend income derived from equity investments is recognized on the date that the Group's right to receive payment is established, which in the case of quoted securities is normally the ex-dividend date.

3) Fair value through profit or loss (FVTPL)

All financial assets not classified as amortized cost or FVOCI described above are measured at FVTPL, including derivative financial assets. On initial recognition, the Group may irrevocably designate a financial asset, which meets the requirements to be measured at amortized cost or at FVOCI, as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Financial assets in this category are measured at fair value at initial recognition. Attributable transaction costs are recognized in profit or loss as incurred. Subsequent changes that are measured at fair value, which take into account any dividend and interest income, are recognized in profit or loss.

Financial assets that are held for trading or are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

4) Assessment whether contractual cash flows are solely payments of principal and interest

For the purposes of this assessment, 'principal' is defined as the fair value of the financial assets on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs, as well as a profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, the Group considers:

- contingent events that would change the amount or timing of cash flows;
- terms that may adjust the contractual coupon rate, including variable rate features;
- prepayment and extension features; and
- terms that limit the Group's claim to cash flows from specified assets (e.g. non-recourse features)
- 5) Impairment of financial assets

The Group recognizes loss allowances for expected credit losses on financial assets measured at amortized cost (including cash and cash equivalents, financial assets at amortized costs, notes and accounts receivable, other receivables, guarantee deposit paid and other financial assets) and contract assets.

The Group measures loss allowances at an amount equal to lifetime expected credit loss (ECL), except for the following which are measured as 12-month ECL:

- debt securities that are determined to have low credit risk at the reporting date; and
- other debt securities and bank balances for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition.

Loss allowance for accounts receivable and contract assets are always measured at an amount equal to lifetime ECL.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 month after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECL, the Group considers reasonable and supportable information that is relevant and available (without undue cost or effort). This includes both quantitative and qualitative information and analysis based on the Group's historical experience and informed credit assessment, as well as forward-looking information.

The Group considers a debt security to have low credit risk when its credit risk rating is equivalent to the globally understood definition of 'investment grade which is considered to be BBB- or higher per Standard & Poor's, Baa3 or higher per Moody's or twA or higher per Taiwan Ratings'.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

The Group considers a financial asset to be in default when the financial asset is more than 180 days past due.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the Group in accordance with the contract and the cash flows that the Group expects to receive). ECLs are discounted at the effective interest rate of the financial asset.

At each reporting date, the Group assesses whether financial assets carried at amortized cost and debt securities at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Evidence that a financial asset is credit-impaired includes the following events:

- significant financial difficulty of the borrower or issuer;
- a breach of contract such as a default or being more than 90 days past due;
- the lender of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession that the lender would not otherwise consider;
- it is becoming probable that the borrower will enter bankruptcy or other financial reorganization; or
- the disappearance of an active market for that financial asset because of financial difficulties.

An impairment loss in respect of financial assets measured at amortized cost are deducted from its carrying amount. Change in the amount of loss allowance is recognized in profit or loss.

The Group shall directly reduce the gross carrying amount of a financial asset when the Group has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

6) Derecognition of financial assets

Financial assets are derecognized when the contractual rights of the cash inflow from the assets are terminated, or when the Group transfers substantially all the risks and rewards of ownership of the financial assets.

On derecognition of a debt instrument in its entirety, the difference between the carrying amount and the sum of the consideration received or receivable and any cumulative gain or loss that had been recognized in other comprehensive income and presented in "other equity – unrealized gains or losses on fair value through other comprehensive income (loss)" in profit or loss is included in other gains or losses.

On derecognition of a debt instrument other than in its entirety, the Group allocates the previous carrying amount of the financial asset between the part it continues to recognize under continuing involvement, and the part it no longer recognizes on the basis of the relative fair values of those parts on the date of the transfer. The difference between the carrying amount allocated to the part that is no longer recognized and the sum of the consideration received for the part no longer recognized and any cumulative gain or loss allocated to it that had been recognized in other comprehensive income is recognized in profit or loss, and presented in the line item of non-operating income and expenses. A cumulative gain or loss that had been recognized in other comprehensive income is allocated between the part that continues to be recognized and the part that is no longer recognized on the basis of the relative fair values of those parts.

(ii) Financial assets (policy applicable before January 1, 2018)

The Group classifies financial assets into the following categories: financial assets at fair value through profit or loss, loans and receivables and available-for-sale financial assets. A regular way purchase or sale of financial assets shall be recognized and derecognized as applicable using trade date accounting.

1) Financial assets at fair value through profit or loss

A financial asset is classified in this category if acquired principally for the purpose of selling or repurchasing in the short term. This type of financial asset is measured at fair value at the time of initial recognition, and attributable transaction costs are recognized in profit or loss as incurred. Financial assets at fair value through profit or loss are measured at fair value and changes therein, (which takes into account any dividend and interest income), are recognized in profit or loss, and it is included in other gains and losses, and other income, respectively.

2) Available-for-sale financial assets

Available-for-sale financial assets are non-derivative financial assets that are designated available-for-sale or are not classified in any of the other categories of financial assets. Available-for-sale financial assets are recognized initially at fair value, plus, any directly attributable transaction cost. Subsequent to initial recognition, they are measured at fair value and changes therein, other than impairment losses, interest income calculated using the effective interest method, dividend income, and foreign currency differences on available-for-sale debt instruments, are recognized in other comprehensive income and are presented in the fair value reserve in equity. When an investment is derecognized, the gain or loss accumulated in equity is reclassified to profit or loss, and it is included in other gains and losses.

3) Loans and receivables

Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market. Loans and receivables comprise trade receivables, other receivables, and non-current debt instrument investment without active market. Such assets are recognized initially at fair value, plus, any directly attributable transaction costs. Subsequent to initial recognition, loans and receivables are measured at amortized cost using the effective interest method, less any impairment losses, other than insignificant interest on short-term receivables. Interest income is recognized in profit or loss, and it is included in other income.

4) Impairment of financial assets

A financial asset is impaired if, and only if, there is any objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset stand that loss event has an impact on the estimated future cash flows of the financial assets that can be estimated reliably.

Objective evidence that financial assets are impaired includes default or delinquency by a debtor, restructuring of an amount due to the entity on terms that the entity would not consider otherwise, indications that a debtor or issuer will enter bankruptcy, adverse changes in the payment status of borrowers or issuers, economic conditions that correlate with defaults or the disappearance of an active market for a security. In addition, for an investment in an equity security, a significant or prolonged decline in its fair value below its cost is accounted for as objective evidence of impairment.

All individually significant receivables are assessed for specific impairment. Receivables that are not individually significant are collectively assessed for impairment by grouping together assets with similar risk characteristics. In assessing collective impairment, the Group uses historical trends of the probability of default, the timing of recoveries, and the amount of loss incurred, adjusted for management's judgment as to whether current economic and credit conditions are such that the actual losses are likely to be greater or lesser than those suggested by historical trends.

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate.

An impairment loss in respect of a financial asset is reduced from the carrying amount, except for trade receivables in which an impairment loss is reflected in an allowance account against the receivables. When it is determined a receivable is uncollectible, it is written off from the allowance account. Any subsequent recovery of receivable written off is recorded in the allowance account. Changes in the amount of the allowance accounts are recognized in profit or loss.

Impairment losses on available-for-sale financial assets are recognized by reclassifying the losses accumulated in the fair value reserve in equity to profit or loss.

If, in a subsequent period, the amount of the impairment loss of a financial assets measured at amortized cost decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, the decrease in impairment loss is reversed through profit or loss, to the extent that the carrying value of the asset does not exceed its amortized cost before the impairment was recognized at the reversal date.

Impairment losses recognized on available-for-sale equity security are not reversed through profit or loss. Any subsequent recovery in the fair value of an impaired available-for-sale equity security is recognized in other comprehensive income, and accumulated in other equity. If, in a subsequent period, the fair value of an impaired available-for-sale debt security increases and the increase can be related objectively to an event occurring after the impairment loss was recognized, then the impairment loss is reversed, with the amount of the reversal recognized in profit or loss.

Impairment losses and recoveries in respect of accounts receivable are recognized in operating expenses. Impairment losses and recoveries in respect of the financial assets other than accounts receivables are recognized in profit or loss, and it is included in other gains and losses.

5) Derecognition of financial assets

The Group derecognizes financial assets when the contractual rights of the cash inflow from the asset are terminated, or when the Group transfers substantially all the risks and rewards of ownership of the financial assets.

On derecognition of a financial asset in its entirety, the difference between the carrying amount and the sum of the consideration received or receivable and any cumulative gain or loss that had been recognized in other comprehensive income and presented in other equity interest—unrealized gains (losses) on available-for-sale financial assets is recognized in profit or loss, and included in other gains and losses.

The Group allocates between the part that continues to be recognized and the part that is derecognized based on the relative fair values of those parts on the date of the transfer.

The difference between the carrying amount allocated to the part derecognized and the sum of the consideration received for the part derecognized and any cumulative gain or loss allocated to it that had been recognized in other comprehensive income shall be recognized in profit or loss, and is included in other gains and losses.

A cumulative gain or loss that had been recognized in other comprehensive income is allocated between the part that continues to be recognized and the part that is derecognized based on the relative fair values of those parts.

(iii) Financial liabilities

1) Financial liabilities at fair value through profit or loss

A financial liability is classified in this category if it is classified as held for trading or is designed as at fair value through profit or loss. This type of financial liability is measured at fair value at the time of initial recognition, and attributable transaction costs are recognized in profit or loss as incurred. Financial liabilities at fair value through profit or loss are measured at fair value and changes therein, which takes into account any interest expense, are recognized in profit or loss, and are included in other gains and losses, and finance costs, respectively.

2) Other financial liabilities

Financial liabilities comprise of short and long borrowings, and trade and other payables, are not classified as held-for-trading, or designated as at fair value through profit or loss shall be measured at fair value, plus, any directly attributable transaction cost at the time of initial recognition. Subsequent to initial recognition, they are measured at amortized cost calculated using the effective interest method. Interest expense not capitalized as capital cost is recognized in profit or loss, and is included in finance costs.

3) Derecognition of financial liabilities

The Group derecognizes a financial liability when its contractual obligation has been discharged or cancelled or expires. The difference between the carrying amount of a financial liability removed and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss, and is included in other gains and losses.

4) Offsetting of financial assets and liabilities

The Group presents financial assets and liabilities on a net basis when the Group has the legally enforceable rights to offset, and intends to settle such financial assets and liabilities on a net basis or to realize the assets and settle the liabilities simultaneously.

(iv) Derivative financial instruments, including hedge accounting

The Group holds derivative financial instruments to hedge its foreign currency and interest rate exposures. Derivatives are recognized initially at fair value and attributable transaction costs are recognized in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are recognized in profit or loss, and are included in other gains and losses.

When a derivative is designated as a hedging instrument, its timing of recognition in profit or loss is determined based on the nature of the hedging relationship. When the fair value of a derivative instrument is positive, it is classified as a financial asset, and when the fair value is negative, it is classified as a financial liability.

(h) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is based on the weighted-average method, and includes expenditure incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on normal operating capacity.

Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

(i) Biological assets

Biological assets are measured at fair value less costs to sell on initial recognition, with any change therein recognized in profit or loss at the end of each reporting period. Costs to sell include all costs that would be necessary to sell the assets, excluding finance costs and tax expenses. Biological asset does not have a quoted market price in an active market and for which alternative fair value measurements are determined to be clearly unreliable. In such case, the asset is measured at cost less accumulated depreciation and impairment losses.

(i) Investment in associates

Associates are those entities in which the Group has significant influence, but not control, or joint control over their financial and operating policies.

Investments in associates are accounted for using the equity method and are recognized initially at cost. The cost of the investment includes transaction costs. The carrying amount of the investment in associates includes goodwill which arises from the acquisition less any accumulated impairment losses.

The consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of equity accounted investees after adjustments to align the accounting policies with those of the Group, from the date that significant influence commences until the date that significant influence ceases.

When the Group's share of losses exceeds its interest in associates, the carrying amount of the investment, including any long-term interests that form part thereof, is reduced to zero, and the recognition of further losses is discontinued except to the extent that the Group has an obligation or has made payments on behalf of the investee.

When the Group subscribes to additional shares in an associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Group's proportionate interest in the net assets of the associate. The Group records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus. Moreover, a difference shall be debited to retained earnings when the balance of capital surplus resulting from investments accounted for using equity method is not sufficient to be written off. If the Group's ownership interest is reduced due to the additional subscription to the shares of associate, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate shall be reclassified to profit or loss on the same basis as would be required if the associate or jointly controlled entity had directly disposed of the related assets or liabilities.

(k) Investment property

Investment property is the property held either to earn rental income or for capital appreciation or for both, but not for sale in the ordinary course of business use in the production or supply of goods or services or for administrative purposes. Investment property is measured at cost both on initial recognition and at subsequent period. Cost includes expenditure that is directly attributable to the acquisition of the investment property.

When the use of an investment property changes such that it is reclassified as property, plant and equipment, its carrying amount at the date of reclassification becomes its cost for subsequent accounting.

(1) Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. The cost consists of any cost directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, and any borrowing cost are eligible for capitalization.

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately, unless the useful life and the depreciation method of the significant part of an item of property, plant and equipment are the same as the useful life and depreciation method of another significant part of that same item.

The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item, and it shall be recognized in profit or loss, under net other income and expenses.

(ii) Reclassification to investment property

The property is reclassified to investment property at its carrying amount when the use of the property changes from owner-occupied to investment property.

(iii) Subsequent cost

Subsequent expenditure is capitalized only when it is probable that the future economic benefits associated with the expenditure will flow to the Group. The carrying amount of those parts that are replaced is derecognized. Ongoing repairs and maintenance is expensed as incurred.

(iv) Depreciation

The depreciable amount of an asset is determined after deducting its residual amount and it shall be allocated on a straight-line basis over its useful life by using straight-line basis. The items of property, plant and equipment with the same useful life may be grouped in determining the depreciation charge. The remainder of the items may be depreciated separately. The depreciation charge for each period shall be recognized in profit or loss.

Land has an unlimited useful life and therefore is not depreciated.

The estimated useful lives for the current and comparative years of significant items of property, plant and equipment are as follows:

1) Buildings and structures: 3 to 25 years

2) Machinery and equipment: 2 to 10 years

3) Factory and equipment: 2 to 10 years

4) Other equipment: 2 to 5 years

Depreciation methods, useful lives, and residual values are reviewed at each reporting date. If expectations differ from the previous estimates, the change is accounted for as a change in an accounting estimate.

(m) Leases

(i) Lesser

Lease income from operating lease is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred in negotiating and arranging an operating lease is added to the carrying amount of the leased asset and recognized as an expense over the lease term on the same basis as the lease income. Incentives granted to the lessee to enter into the operating lease are spread over the lease term on a straight-line basis so that the lease income received is reduced accordingly.

Contingent rents are recognized as income in the period when the lease adjustments are confirmed.

(ii) Lessee

Leases in terms of which the Group assumes substantially all of the risks and rewards of ownership are classified as finance leases. On initial recognition, the lease asset is measured at an amount equal to the lower of its fair value with the present of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to the asset.

Other leases are operating leases and are not recognized in the Group's statement of financial position.

Payments made under operating lease, excluding insurance and maintenance expenses, are recognized in profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognized as an integral part of the total lease expense, over the term of the lease.

Contingent rent is recognized as expense in the periods in which they are incurred.

(n) Intangible assets

(i) Goodwill

1) Initial Recognition

Goodwill arising from the acquisition has been recognized as intangible assets. The initial measurement and recognition of Goodwill please refer to note 6(j)(iii).

2) Subsequent measurement

Goodwill is measured at cost less accumulated impairment losses. Impairment loss on equity investment in investees accounted for under the equity method is not allocated to any asset, including goodwill that forms part of the carrying amount of such investment.

(ii) Other intangible assets

Subsequent to the initial recognition, an intangible asset is measured at cost, less any accumulated amortization and any accumulated impairment losses.

Amortizable amount is the cost of an asset, less its residual values. Intangible assets are amortized from the date that they are available for use by using straight-line method, the estimated useful lives for the current and comparative periods are as follows:

1) Technical know-how: 12 years

2) Computer software and information systems: 1 to 10 years

3) Land use rights: 50 years

4) Others: $1.5 \sim 5$ years

The residual value, amortization period, and amortization method for an intangible asset with a finite useful life shall be reviewed at least annually at each fiscal year-end. Any change shall be accounted for as a change in accounting estimate.

(o) Impairment of non-financial assets

The carrying amounts of the Group's non-financial assets, other than inventories, deferred tax assets, assets arising from employee benefits and biological assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. If it is not possible to determine the recoverable amount for the individual asset, then the Group will have to determine the recoverable amount for the asset's cash-generating unit.

The recoverable amount for the individual asset or the cash-generating unit is the higher of its fair value less costs to sell and its value in use. When evaluating value in use, the pre-tax discount rate is used to estimate the future cash flows. The discount rate should reflect the evaluation of specific risk resulting from the impact of the current market on the time value of money and on the asset or cash-generating unit.

If, and only if, the recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset shall be reduced to its recoverable amount. The reduction is an impairment loss which shall be recognized immediately in profit or loss.

The Group should assess at each reporting date whether there is any indication that an impairment loss recognized in prior periods for an asset other than goodwill may no longer exist or may have decreased. An impairment loss recognized in prior periods shall be reversed if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. If this is the case, the carrying amount of the asset shall be increased to its recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount net of depreciation or amortization that would have been determined if no impairment loss had been recognized.

Notwithstanding whether indicators exist, recoverability of goodwill and intangible assets with indefinite useful lives or those not yet in use are required to be tested at least annually. Impairment loss is recognized if the recoverable amount is less than the carrying amount.

For the purpose of impairment testing, goodwill acquired in a business combination shall, from the acquisition date, be allocated to each of the acquirer's cash-generating units or groups of cash-generating units that is expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquire are assigned to those units or group of units.

If the carrying amount of the cash-generating units exceeds the recoverable amount of the unit, the entity shall recognize the impairment loss and the impairment loss shall be allocated to reduce the carrying amount of each asset in the unit. Reversal of an impairment loss for goodwill is prohibited.

(p) Treasury stock

Repurchased shares are recognized under treasury shares (a contra-equity account) based on their repurchase price (including all directly accountable costs). Gains on disposal of treasury shares should be recognized under "capital reserve — treasury share transactions". Losses on disposal of treasury shares should be offset against existing capital reserves arising from similar types of treasury shares. If there are insufficient capital reserves to be offset against, then such losses should be accounted for under retained earnings. The carrying amount of treasury shares should be calculated using the weighted average of different types of repurchase.

During the cancellation of treasury shares, "capital reserve — share premiums" and "share capital" should be debited proportionately. Gains on cancellation of treasury shares should be recognized under existing capital reserves arising from similar types of treasury shares. If there are insufficient capital reserves to be offset against, then such losses should be accounted for under retained earnings. Losses on cancellation of treasury shares should be offset against existing capital reserves.

(q) Revenue

(i) Revenue from contracts with customers (policy applicable from January 1, 2018)

Revenue is measured based on the consideration to which the Group expects to be entitled in exchange for transferring goods or services to a customer. The Group recognizes revenue when it satisfies a performance obligation by transferring control of a good or a service to a customer. The accounting policies for the Group's main types of revenue are explained below:

1) Sale of goods

The Group recognizes revenue when control of the products has been transferred, when the products are delivered to the customer, the customer has full discretion over the channel and price to sell the products, and there is no unfulfilled obligation that could affect the customer's acceptance of the products. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred to the customer, and either the customer has accepted the products in accordance with the sales contract, the acceptance provisions have lapsed, or the Group has objective evidence that all criteria for acceptance have been satisfied.

The Group often offers volume discounts to its customers based on aggregate sales of electronic components over a 12 months period. Revenue from these sales is recognized based on the price specified in the contract, net of the estimated volume discounts. Accumulated experience is used to estimate the discounts, using the expected value method, and revenue is only recognized to the extent that it is highly probable that a significant reversal will not occur. A contract liability is recognized for expected volume discounts payable to customers in relation to sales made until the end of the reporting period. No element of financing is deemed present as the sales of electronic components are made with a credit term of 30 to 60 days, which is consistent with the market practice.

A receivable is recognized when the goods are delivered, as this is the point in time that the Group has a right to an amount of consideration that is unconditional.

2) Financing components

The Group does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the Group does not adjust any of the transaction prices for the time value of money.

(ii) Revenue (policy applicable before January 1, 2018)

1) Goods sold

Revenue from the sale of goods in the course of ordinary activities is measured at the fair value of the consideration received or receivable, net of returns, trade discounts and volume rebates. Revenue is recognized when persuasive evidence exists, usually in the form of an executed sales agreement, that the significant risks and rewards of ownership have been transferred to the customer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the goods, and the amount of revenue can be measured reliably. If it is probable that discounts will be granted and the amount can be measured reliably, then the discount is recognized as a reduction of revenue as the sales are recognized.

(iii) Rent income

Lease income from investment property is recognized in income on a straight-line basis over the lease term. An incentive granted to the lessee is to be recognized as part of the lease income and it is spread over the lease term on a straight-line basis so that the lease income received is reduced accordingly.

Income from sublease is recognized in profit or loss, and is included in other gains and losses.

(r) Employee benefits

(i) Defined contribution plans

Obligations for contributions to defined contribution pension plans are recognized as an employee benefit expense in profit or loss in the periods during which services are rendered by employees.

(ii) Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Group's net obligation in respect of the defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; That benefit is discounted to determine its present value. The fair value of the plan assets is deducted. The discount rate is the yield at the reporting date on market yields of government bonds that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

The calculation is performed annually by a qualified actuary using the projected unit credit method. When the calculation results in a benefit to the Group, the recognized asset is limited to the total of the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. In order to calculate the present value of economic benefits, consideration is given to any minimum funding requirements that apply to any plan in the Group. An economic benefit is available to the Group if it is realizable during the life of the plan, or on settlement of the plan liabilities.

If the benefits of a plan are improved, the portion of the increased benefit relating to past service by employees is recognized in profit or loss immediately.

Remeasurements of the net defined benefit liability (asset), which comprise (1) actuarial gains and losses, (2) the return on plan assets (excluding amounts included in the net interest on the net defined benefit liability (asset)), and (3) any change in the effect of the asset ceiling (if any, excluding amounts included in the net interest on the defined benefit liability (asset)), are recognized in other comprehensive income. The Group reclassifies the amounts recognized in other comprehensive income to retained earnings.

Gains or losses on the curtailment or settlement of a defined benefit plan are recognized when the curtailment or settlement occurs. The gain or loss on curtailment arises from any change in the fair value of plan assets and, any change in the present value of the defined benefit obligation.

(iii) Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed when the related service is provided.

A liability is recognized for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

(s) Share-based payment

The grant-date fair value of share-based payment awards granted to employee is recognized as employee expenses, with a corresponding increase in equity, over the period that the employees become unconditionally entitled to the awards. The amount recognized as an expense is adjusted to reflect the number of awards which the related service and non-market performance conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of award that meet the related service and non-market performance conditions at the vesting date.

For share-based payment awards with non-vesting conditions, the grant-date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between the expected and the actual outcomes.

The grant date of the share-based payment is the date the Group inform their employees about the exercise price and shares.

(t) Income taxes

Income tax expenses include both current taxes and deferred taxes. Except for expenses related to business combinations, or are recognized directly in equity or other comprehensive income, all current and deferred taxes shall be recognized in profit or loss.

Current taxes include tax payables and tax deduction receivables on taxable gains (losses) for the year calculated using the statutory tax rate on the reporting date or the actual legislative tax rate, as well as tax adjustments related to prior years.

Deferred taxes arise due to temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases. Deferred taxes shall not be recognized for the below exceptions:

- (i) Assets and liabilities that are initially recognized but are not related to the business combination and have no effect on net income or taxable gains (losses) during the transaction.
- (ii) Temporary differences arising from equity investments in subsidiaries or joint ventures where there is a high probability that such temporary differences will not reverse.
- (iii) Initial recognition of goodwill.

Deferred tax assets and liabilities shall be measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax assets and liabilities may be offset against each other if the following criteria are met:

- (i) The entity has the legal right to settle tax assets and liabilities on a net basis; and
- (ii) the taxing of deferred tax assets and liabilities fulfill one of the below scenarios:
 - 1) levied by the same taxing authority; or
 - 2) levied by different taxing authorities, but where each such authority intends to settle tax assets and liabilities (where such amounts are significant) on a net basis every year of the period of expected asset realization or debt liquidation, or where the timing of asset realization and debt liquidation is matched.

A deferred tax asset should be recognized for the carry-forward of unused tax losses, unused tax credits, and deductible temporary differences to the extent that it is probable that future taxable profit will be available against which the unused tax losses, unused tax credits, and deductible temporary differences can be utilized. Such unused tax losses, unused tax credits, and deductible temporary differences shall also be reevaluated every year on the financial reporting date, and adjusted based on the probability that future taxable profit will be available against which the unused tax losses, unused tax credits, and deductible temporary differences can be utilized.

(u) Business combinations

The Group treats the business combination as acquisition. Goodwill is measured at the consideration transferred less the amounts of the identifiable assets acquired and liabilities assumed (generally at fair value) at the acquisition date. If the amount of net assets acquired and liabilities assumed exceeds the acquisition price, the Group re-assesses whether it has correctly identified all of the assets acquired and liabilities assumed, and recognize a gain for the excess.

All transaction cost relating to a business combination are recognized immediately as expense when incurred, except for the issuance of debt or equity instruments.

The Group shall measure any non-controlling interests in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets, if the non-controlling interests are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation. Other non controlling interests are evaluated by their fair value or by another basis permitted by the IFRSs endorsed by the FSC.

In a business combination achieved in batches, the previously held equity interest in the acquiree at its acquisition-date fair value is remeasured, and the resulting gain or loss, if any, is recognized in profit or loss. In prior reporting periods, the Group may have recognized changes in the value of its equity interest in the acquire in other comprehensive income. If so, the amount that was recognized in other comprehensive income shall be recognized on the same basis as would be required if the Group had directly disposed the previously held equity interest. If the disposal of the equity interest required a reclassification to profit or loss, such an amount shall be reclassified to profit or loss.

(v) Earnings per share

The Group discloses the Company's basic and diluted earnings per share attributable to ordinary equity holders of the Company. The calculation of basic earnings per share is based on the profit attributable to the ordinary shareholder of the Company divided by weighted-average number of ordinary shares outstanding. The calculation of diluted earnings per share is based on the profit attributable to ordinary shareholders of the Company, divided by weighted-average number of ordinary shares outstanding after adjustment for the effects of all dilutive potential ordinary shares, such as employee stock options and employee remuneration.

(w) Operating segment

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the Group). Operating results of the operating segment are regularly reviewed by the Group's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance. Each operating segment consists of standalone financial information.

(5) Significant accounting assumptions and judgments, and major sources of estimation uncertainty:

The preparation of the consolidated financial statements in conformity with the IFRSs endorsed by the FSC requires management to make judgments, estimates, and assumptions that affect the application of the accounting policies and the reported amount of assets, liabilities, income, and expenses. Actual results may differ from these estimates.

The management continues to monitor the accounting estimates and assumptions. The management recognizes any changes in accounting estimates during the period and the impact of those changes in accounting estimates in the next period.

Information about critical judgments in applying accounting policies do not have significant effects on the amounts recognized in the consolidated financial statements.

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are as follows:

(a) Valuation of inventories

As inventories are stated at the lower of cost or net realizable value, the Group estimates the net realizable value of inventories for obsolescence and unmarketable items at the end of the reporting period and then writes down the cost of inventories to net realizable value. The valuation of inventories is mainly determined based on assumptions as to future demand within a specific time horizon. Due to the rapid industrial transformation, there may be significant changes in the net realizable value of inventories. The further description of the valuation of inventories, please refer to note 6(e).

(b) Business combinations

The related accounting of the business combinations, including consideration transferred, recognized amounts of assets acquired and liabilities assumed at the acquisition date are measured on the basis of market unobservable data. It depends on the management's subjective judgment and causes higher uncertainty. For further information, please refer to note 6(j)

The accounting policy and disclosure of the Group include that measuring the financial assets and financial liabilities at fair value. The Group uses external information to make the evaluation result agreed to market status and to confirm the data resource is independent reliable and consistent with other resource. The Group regularly revises the inputs and any essential adjustments on the fair value to confirm that evaluation results is reasonable. The Group regularly evaluates investment property using the evaluation methods and parametric assumptions announced by FSC.

When measuring the fair value of an asset or a liability, the Group usually uses market observable data. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- (c) Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- (d) Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- (e) Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in the following notes:

- (a) Note 6(1)-Investment property.
- (b) Note 6(z)-Financial instruments.

(6) Explanation of significant accounts:

(a) Cash and cash equivalents

	Dec	December 31,		
	2018		2017	
Cash on hand	\$	702	286	
Cash in bank		5,191,898	3,738,352	
Time deposits		269,573	4,110,485	
	\$	5,462,173	7,849,123	

Refer to note 6(z) for the fair value sensitivity analysis and currency risk of the financial assets and liabilities of the Group.

(b) Financial instruments

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

	December 31,		December 31,	
		2018	2017	
Mandatorily measured at FVTPL:		_		
Stocks listed on domestic markets	\$	96,955	-	
Private fund (Note)		722,405	-	
Money market funds		6,308	-	
Financial assets held-for-trading:				
Stocks listed on domestic markets		-	136,530	
Money market funds, equity funds and bond funds			1,164,777	
Total	\$	825,668	1,301,307	
Current	\$	103,263	1,301,307	
Non-current		722,405		
	\$	825,668	1,301,307	

Note: As of December 31, 2018, part of the private fund is during the lock-up period.

Refer to note 6(y) for the gains or losses on disposal of investment and the amount of remeasurement at fair value recognized in profit or loss.

(ii) Non-current financial assets at fair value through other comprehensive income (FVOCI):

	December 31	
		2018
Stocks listed on domestic markets	\$	1,205,785
Stocks listed on foreign markets		585,861
Non-public stocks		564,486
	\$	2,356,132

The Group decided to hold these equity instruments, which are not held for trading, at fair value through other comprehensive income. These investments were recognized as available-for-sale financial assets and financial assets at cost on December 31, 2017.

The Group considered the change in the proportion of investment portfolio, therefore, disposed partial of its equity investments designated at fair value through other comprehensive income amounting to \$244,675 thousand in 2018, Upon derecognition, the gain of disposal, accumulated in other equity, amounting to \$91,405 thousand was transferred to retained earnings.

(iii) Current available-for-sale financial assets:

1	December 31,
	2017
\$_	1,661,562
	1 \$_

These investments were measured at fair value through other comprehensive income on December 31, 2018. Please refer to note 6(b)ii.

(iv) Non-current available-for-sale financial assets:

	December 31,
	2017
Stocks listed on foreign markets	\$ 573,401
Non-public stocks	607,490
Private fund (Note)	612,978
	\$ <u>1,793,869</u>

Note: As of December 31, 2017, part of the private fund is during the lock-up period.

Refer to note 6(y) for the gain or losses on disposal of investments.

Except for the private fund that was measured at fair value through profit or loss, other investments were measured at fair value through other comprehensive income on December 31, 2018. Please refer to note 6(b)ii.

(v) Non-current financial assets at cost:

		2017
Foreign unlisted stocks	\$	22,915
Less: accumulated impairment		-
Total	<u>\$</u>	22,915

The aforementioned investments held by the Group were measured at cost less any impairment loss as of December 31, 2017, given the range of reasonable fair value estimates is large and the probability for each estimate cannot be reasonably determined; therefore, the Group's management had determined that the fair value cannot be measured reliably. These investments were classified as fair value through other comprehensive income as of December 31, 2018. Please refer to note 6(b)ii.

(vi) Non-current financial assets at amortized cost:

	Issue period	Nominal rate (%)	December 31, 2018
Preferred stock B	2012.11.23~2019.11.22	-	\$ 29,900

The Group has assessed that its financial asset is held to collect contractual cash flows, which consist solely of payments of principal and interest on principal amount outstanding. The Group has designated these investments at the date of initial application as measured at amortized cost. As of December 31, 2017, these investments were classified as non-current investments in debt instrument without an active market. Please refer to note 6(b) vii.

(vii) Non-current investments in debt instrument without active market:

	Issue period	Nominal rate (%)	December 31, 2017
Preferred stock B	2012.11.23~2019.11.22	-	\$ 62,200

(viii) Sensitivity analysis in the equity price risk:

If the equity price changes, the impact to comprehensive income, using the sensitivity analysis based on the same variables except for the price index for both period, will be as follows:

	2018		2017		
Prices of securities at the reporting date	After-tax other comprehensive income	After-tax profit (loss)	After-tax other comprehensive income	After-tax profit (loss)	
Increasing 3%	\$ 70,684	2,909	103,663	39,039	
Decreasing 3%	\$(70,684)	(2,909)	(103,663)	(39,039)	

(ix) As of December 31, 2018 and 2017 the financial assets were not pledged. For information on the Group's currency risk and credit risk was disclosed in note 6(z).

(c) Notes and accounts receivable, net

	De	cember 31, 2018	December 31, 2017
Notes receivable	\$	459	-
Accounts receivable		1,424,223	1,553,476
Less: allowance for doubtful accounts		(2,317)	(2,086)
	\$	1,422,365	1,551,390

The Group applies the simplified approach to provide for its loss allowance used for expected credit losses, which permit the use of lifetime expected loss provision for all receivables on December 31, 2018. To measure the expected credit losses, notes and accounts receivable have been grouped based on shared credit risk characteristics and days past due, as well as incorporate forward looking information. The loss allowance provision for the segment of foundry and agriculture technology as of December 31, 2018 was determined as follows:

	oss carrying amount	Weighted- average expected loss rate	Lifetime expected credit loss allowance
Not past due	\$ 1,203,680	0%	-
Past due 1~60 days	196,437	0%	-
Past due 61~120 days	14,825	0%	-
Past due 121~180 days	3,148	0%~32.14%	-
Past due more than 181 days	 	100%	
	\$ 1,418,090		

The loss allowance provision for the segment of gene chips testing service as of December 31, 2018 was determined as follows:

	s carrying mount	Weighted- average expected loss rate	Lifetime expected credit loss allowance
Not past due	\$ 2,708	0%~7.29%	63
Past due 1~60 days	1,053	7.33%~18.55%	119
Past due 61~120 days	563	14.96%~24.59%	129
Past due 121~180 days	482	34.42%~67.65%	220
Past due more than 181 days	 1,786	100%	1,786
	\$ 6,592		2,317

As of December 31, 2017, the Group applies incurred loss model to consider the loss allowance provision of accounts receivable. As of December 31, 2017, the aging analysis of accounts receivable, which were past due but not impaired, were as follows:

	December 31, 2017	
Past due 1~60 days	\$ 75,8	64
Past due 61~180 days	5,3	85
Past due more than 181 days		
	\$ <u>81,2</u>	<u>49</u>

The movements of allowance for doubtful accounts were as follows:

	2017			
		2018	Individually assessed impairment	Collectively assessed impairment
Beginning balance	\$	2,086	3,223	-
Acquisition through business combinations		3,294	-	-
Impairment loss reversed, net		(840)	(962)	-
Amount written off		(2,173)	-	-
Effect of changes in foreign exchange rates		(50)	(175)	
Ending balance	\$	2,317	2,086	_

On December 31, 2017 the Group's policy of allowance for receivables is as follows:

Assessment method:

- (i) At the balance sheet date, the Group evaluates the probability of collection regarding the receivable in accordance with each customer.
- (ii) The Group may recognize 100% allowance of doubtful accounts based on the expectancy of bad debt by assessing the financial and operating conditions of each customer.

Impairment loss recognized for individually assessed impairment was the difference between the carrying amount and the amount expected to be collected. The Group also considered the fluctuation of the economic circumstances and historical collection to determine the recognition of impairment.

The Group establishes a policy of allowance for doubtful accounts based on historical trends of the probability of default and the timing of recoveries and the amount of loss incurred. The policy is mainly based on the characteristic of industry and the conservative of business cove.

The Group believed that no impairment allowance was necessary with respect to the past due receivables that were collectable.

As of December 31, 2018 and 2017, the notes and accounts receivable were not pledged.

(d) Other receivables

	Dec	ember 31, 2018	December 31, 2017
Other receivables—loans to associates	\$	-	182,249
Others (recognized as other current assets)		125,288	174,033
Less: allowance for doubtful accounts		-	
	\$	125,288	356,282

As of December 31, 2018 and 2017, other receivables were not past due nor impaired.

For information on the Group's credit risk was disclosed in note 6(z).

(e) Inventories

	De	cember 31, 2018	December 31, 2017
Raw materials, supplies and spare parts	\$	2,641,108	2,321,414
Work in process		793,552	1,222,193
Finished goods		472,730	201,074
	\$	3,907,390	3,744,681

Except cost of goods sold and inventories recognized as expenses, the remaining gains or losses which were recognized as operating cost or deduction of operating cost were as follows:

	 2018	2017
Loss on valuation of inventories and obsolescence (reversal of inventories write-downs)	\$ 39,227	(29,288)
Unallocated overheads	\$ 15,156	
Revenues from sale of scraps	\$ (13,524)	(12,534)
Loss (gain) on physical inventory	\$ (619)	801

As of December 31, 2018 and 2017, the inventories were not pledged.

(f) Biological assets

(i) List of biological assets:

	December 31,	December 31,	
	2018	2017	
Consumable biological assets	\$ 103,289	96,738	
Bearer biological assets	\$ 31,059	37,450	

(ii) Change in biological assets:

	2018	2017
Beginning balance	\$ 134,188	181,319
Increase due to purchase	5,374	46,509
Input costs	405,013	404,325
Depreciation expenses	(10,903)	(9,840)
Decrease due to sales	(397,990)	(358,511)
Changes in fair value less costs to sell due to price changes	1,139	(17,455)
Effect of changes in consolidated entities	-	(104,745)
Effect of changes in foreign exchange rates	 (2,473)	(7,414)
Ending balance	\$ 134,348	134,188
Current	\$ 103,289	96,738
Non-current	 31,059	37,450
	\$ 134,348	134,188
	 · ·	(6

For the years ended December 31, 2018 and 2017, the (losses) gains of \$1,139 thousand and \$(17,455) thousand, respectively, was recognized as operating costs of the consolidated statement of comprehensive income as a result of the remeasurement of biological assets at the (lower) higher of its carrying amount or fair value less costs to sell.

(iii) As of December 31, 2018 and 2017, the numbers of the biological assets were as follows:

	· · · · · · · · · · · · · · · · · · ·	December 31,
T 11 11 1	2018	2017
Farrows, hogs and breeders	32,659	31,455

(iv) Fair value

The Group uses valuation method to measure its biological assets to determine the fair value of the hogs and the farrows (which are required to reach a certain weight), less, cost to sell at the end of the reporting period. If biological asset does not have a quoted market price in an active market, the asset is measured at cost less accumulated depreciation and impairment losses.

Costs of the biological assets include all of the costs within the growth cycle, such as the cost of new-born farrows, the feed and the raising farm. The cost of the productive biological assets shall be depreciated on a straight-line basis over the producible term. The amortized term are within 24 to 36 months. For the years ended December 31, 2018 and 2017, the depreciation expenses of biological assets (which will be converted into its breeding biological assets) were \$10,903 thousand and \$9,840 thousand, respectively.

- (v) The Group is exposed to the following risks relating to its hog farming:
 - 1) Regulations and environmental risks

The Group is subject to laws and regulations in various countries in which it operates. The Group has established environmental policies and procedures aimed at complying with the local environment and other laws. Management performs regular reviews to identify environmental risks and to ensure that systems in place are adequate to manage those risks.

2) Supply and demand risks

The Group is exposed to risks arising from fluctuations in the price and sales volume of hogs. When possible, the Group manages this risk by aligning its farming volume with market supply and demand. Management performs regular industry trend analyses to ensure that the Group's pricing structure is in line with the market and to ensure that projected farming volumes are consistent with the expected demand.

3) Climate and other risks

The Group's hog farming is exposed to the risk of damage from climate change, diseases, and other natural forces. The Group has extensive processes in place aimed at monitoring and mitigating those risks, including regular pig health inspections and industry pest and disease surveys.

- (vi) As of December 31, 2018 and 2017, the biological assets were not pledged.
- (vii) Fair value valuation technique of biological assets used inputs that were categorized in level 3. Please refer to the table above regarding the movement of biological assets for a reconciliation beginning from the opening balance to the closing balance for level 3 fair value. In this period the fair value hierarchy of the biological assets were not transferred into or out of level 3. The valuation technique and significant unobservable inputs were as follows:

Items	Fair value valuation technique	Significant unobservable inputs	Relationship between significant unobservable inputs and fair value
Hogs in China	Price comparison: Estimated value of price comparison is compared with the biological assets of different type, quality and kinds, etc.	Evaluate the quality	Evaluate the changes in fair value, according to the quality of biological assets.

(g) Investments accounted for using equity method

The components of investments accounted for using the equity method at the reporting date were as follows:

	December 31,	December 31,	
	2018	2017	
Associates	\$ 532,808	327,269	

(i) Associates

In the first quarter of 2018, the Group subscribed the new shares contributed by Jiangsu CM / Merit Agriculture Development Co., Ltd. for \$349,970 thousand in cash, and therefore, has significant influence on it. The equity shares held by the Group were not changed by the abovementioned transaction.

Affiliates which are material to the Group consisted of the followings:

		Main operating		Shareholding
	Nature of	location/ Registered	and Voti	ng Rights
	Relationship with	Country of the	December 31,	December 31,
Name of Affiliates	the Group	Company	2018	2017
Jiangsu CM / Merit Agriculture	Developing hog	China	49 %	49 %
Development Co., Ltd. (Note)	farming technology			
	and trading			

(Note) Since June 2017, Jiangsu CM/Merit Agriculture Development Co., Ltd. is no longer included in the consolidated financial statements. Please refer to note 6(i) of the consolidated financial statements for other related information.

The following consolidated financial information of significant affiliates has been adjusted according to individually prepared IFRS financial statements of these affiliates.

The financial information of Jiangsu CM/Merit Agriculture Development Co., Ltd.:

	De	ecember 31, 2018
Current assets	\$	234,687
Non-current assets		1,374,095
Current liabilities		(407,284)
Non-current liabilities		(313,098)
Net assets	\$	888,400
Net assets attributable to non-controlling interests	\$	433,761
		2018
Operating revenue	\$	144,230
Loss from continuing operations	\$	(187,990)
Other comprehensive income		
Total comprehensive income	\$	(187,990)
		2018
Shares of net assets of affiliates as of January 1, 2018	\$	185,537
Loss attributable to the Group		(92,115)
Exchange differences on translation of foreign financial statements attributable to the Group		(33,366)
Shares of net assets of affiliates as of December 31, 2018		60,056
Add: Issuance of shares in cash		349,970
Effect of changes in foreign exchange rates		23,735
Carrying amount of equity of affiliate attributable to the Group	\$	433,761

Summary of financial information for the individually insignificant investments in associates accounted for using the equity method were as follows. The aforementioned financial information was included in the consolidated financial statements of the Group:

	December 31, 2018		December 31, 2017	
Total equity of the individually insignificant investments in associates	\$	99,047	327,269	
		2018	2017	
Attributable to the Group:				
Net loss	\$	(25,722)	(166,787)	
Other comprehensive income		49	9,263	
Total comprehensive loss	\$	(25,673)	(157,524)	

(ii) Pledge to secure

As of December 31, 2018 and 2017, the investments accounted for using equity method were not pledged.

(h) Acquisition of non-controlling interests

(i) Chainwin Cayman

On January 19 and August 24, 2018, the Group subscribed the new shares contributed by Chainwin Cayman for \$346,297 thousand and \$1,228,800 thousand in cash, respectively. Plus, On January 22 and December 27, 2018, Chainwin Cayman repurchased its own shares amounting to \$2,913 thousand and \$69,120 thousand, respectively, and cancelled afterwards; therefore, the Group increased its ownership from 88.14% to 94.71%.

On July 1 and October 6, 2017, the Group subscribed the new shares contributed by Chainwin Cayman for \$154,149 thousand and \$603,400 thousand in cash, respectively, increasing its ownership from 43.75% to 62.25%, successively. On December 18, 2017, the Group acquired the shares of Chainwin Cayman amounting to \$569,983 thousand, increasing its ownership from 62.25% to 88.14%.

Based on the afore mentioned transactions, the effects of the changes in shareholdings were as follows:

	 2018	2017
Carrying amount of interest on acquisition	\$ 1,537,267	1,168,186
Consideration paid	 (1,575,097)	(1,327,532)
Retained earnings changes in ownership interests in subsidiaries	\$ (37,830)	(159,346)

(ii) Jiangsu CM/Merit Agriculture Development Co., Ltd.

On September 26 and November 29, 2018, the Group subscribed the new shares contributed by Jiangsu CM/Merit Agriculture Development Co., Ltd. for \$58,007 thousand and \$302,134 thousand, respectively, in cash, increasing its ownership from 60% to 90.79%, successively. For the year ended December 31, 2017, there was no such transaction.

Based on the aforementioned transactions, the effects of the changes in shareholdings were as follows:

	 2018	
Carrying amount of interest on acquisition	\$ 357,398	
Consideration paid	 (360,141)	
Retained earnings changes in ownership interests in subsidiaries	\$ (2,743)	

(i) Losing control of subsidiary

The Group did not take part in the issuance of common stock for cash of Jiangsu CM / Merit Agriculture Development Co., Ltd. at the second quarter of 2017. Therefore, the percentage of the Group's ownership was reduced to 49%, and the Group lost its control over Jiangsu CM / Merit Agriculture Development Co., Ltd.

The related disposal loss which was \$1,991 thousand was recognized as other gains and losses in consolidated statements of comprehensive income.

The carrying amount of assets and liabilities of Jiangsu CM / Merit Agriculture Development Co., Ltd. on May 31, 2017 was as follows:

Cash and cash equivalents	\$ 36,959
Inventories	9,176
Other current assets	14,539
Property, plant and equipment	358,353
Biological assets	104,745
Other non-current assets	21,452
Notes and accounts payable	(189,337)
Other payables	(8,540)
Other current liabilities	 (118)
Carrying amount of net assets	\$ 347,229

(j) Acquisition of subsidiary

On July 12, 2018, the Group became the largest shareholder of PBL and obtained control over it since then, increasing its ownership from 37.88% to 45.71%. PBL is mainly engaged in researching, manufacturing and selling of high density chips and providing testing service.

From the acquisition date to December 31, 2018, PBL contributed revenue and net loss of \$20,038 thousand and \$63,847 thousand, respectively. If the acquisition had occurred on January 1, 2018, the management estimates that consolidated revenue would have been \$41,567 thousand and the consolidated net loss would have been \$117,589 thousand. The abovementioned influences do not include adjustments on fair value.

The acquisition-date fair value of major class of consideration transferred were as follows:

(i) Consideration transferred

The Group subscribed the new shares contributed by PBL and became the largest shareholder of PBL, and obtained control over it since then. The Group expects PBL's future generated cash flow in accordance with the income approach that reflects the time value of investment and the risk of the discounted cash flow, and evaluates the implied consideration transferred of controlling over PBL.

The fair value measurement for the controlling interests has been categorized as a Level 3 fair value based on the inputs to the valuation technique used. The key assumptions are as follows:

- 1) The discount rate is based on the weighted-average cost of capital that computed by PBL and its comparable capital structures and corresponded by the market value;
- 2) Seven years of cash flows were included in the discounted cash flow model. Budgeted annual earnings after tax, before interest, depreciation and amortization was based on expectations of future outcomes taking into account past experience, adjusted for the anticipated revenue growth.

The shares of PBL held by the Group were measured and the fair value per share was \$15 at the acquisition date.

(ii) The following table summarizes the recognized amounts of assets acquired and liabilities assumed at the acquisition date:

Cash and cash equivalents	\$ 180,540
Notes and accounts receivable	5,651
Inventories	19,984
Other current assets	24,281
Property, plant and equipment (note 6(k))	15,881
Intangible assets (note 6(m))	842
Other non-current assets	11,240
Notes and accounts payable	(2,522)
Other payables	(13,156)
Other current liabilities	 (13,071)
Total identifiable net assets acquired	\$ 229,670

(iii) Goodwill arising from the acquisition has been recognized as follows:

Consideration transferred	\$ 123,750
Fair value of pre-existing interest in Phalanx Biotech Group, Inc.	300,000
Non-controlling interest in the acquire (proportionate share of the fair value of the identifiable net assets)	124,683
Less: Fair value of identifiable net assets	 (229,670)
Goodwill (note 6(m))	\$ 318,763

The Group re-measured the fair value of its existing equity interest in PBL before the business combination, and the resulting gain of \$273,432 thousand was recognized as "gains on disposals of investment".

Goodwill mainly attributed to the profitability in the microarray services market and the know-how of PLB work force.

(k) Property, plant and equipment

The cost and accumulated depreciation of the property, plant and equipment of the Group for the years ended December 31, 2018 and 2017 were as follows:

		Land	Buildings and structures	Machinery and equipment	Factory and equipment	Other equipment	Construction in progress	Total
Cost:	_							
Balance as of January 1, 2018	\$	2,546,534	2,153,117	17,777,113	4,255,435	363,944	649,245	27,745,388
Acquisitions through business combinations		-	-	22,975	-	2,708	-	25,683
Additions		-	16,608	1,549,416	84,393	163,532	1,243,747	3,057,696
Reclassification (Note 1)		-	19,798	1,197,356	33,775	58,127	(146,002)	1,163,054
Disposals		-	(124)	(404,674)	(130,889)	(79,577)	-	(615,264)
Effect of changes in foreign exchange rates	_	_	(964)	(188)	(749)	(924)	(1,295)	(4,120)
Balance as of December 31, 2018	\$	2,546,534	2,188,435	20,141,998	4,241,965	507,810	1,745,695	31,372,437
Balance as of January 1, 2017	\$	2,546,534	2,130,540	15,179,485	4,050,349	285,457	359,902	24,552,267
Additions		-	41,307	1,847,437	99,983	110,590	751,766	2,851,083
Reclassification (Note 2)		-	(18,646)	1,131,654	112,066	400	(105,387)	1,120,087
Disposals		-	-	(381,463)	(6,621)	(28,134)	-	(416,218)
Effect of changes in consolidated entities		-	-	-	-	(4,028)	(354,533)	(358,561)
Effect of changes in foreign exchange rates	_		(84)		(342)	(341)	(2,503)	(3,270)
Balance as of December 31, 2017	\$	2,546,534	2,153,117	17,777,113	4,255,435	363,944	649,245	27,745,388

		Land	Buildings and structures	Machinery and equipment	Factory and equipment	Other equipment	Construction in progress	Total
Accumulated depreciation:								
Balance as of January 1, 2018	\$	-	584,763	10,563,890	1,956,057	172,410	-	13,277,120
Acquisitions through business combinations		-	-	8,267	-	1,535	-	9,802
Depreciation		-	104,835	2,465,639	416,731	140,068	-	3,127,273
Reclassification		-	-	-	(1,228)	1,228	-	-
Disposals		-	(124)	(399,874)	(130,885)	(78,418)	-	(609,301)
Effect of changes in foreign exchange rates			(138)	(36)	(291)	(244)		(709)
Balance as of December 31, 2018	\$	-	689,336	12,637,886	2,240,384	236,579		15,804,185
Balance as of January 1, 2017	\$	-	485,288	9,058,857	1,560,930	98,214	-	11,203,289
Depreciation		-	99,495	1,879,612	404,550	100,960	-	2,484,617
Reclassification		-	-	3,076	(3,076)	-	-	-
Disposals		-	-	(377,655)	(6,290)	(26,517)	-	(410,462)
Effect of changes in consolidated entities		-	-	-	-	(208)	-	(208)
Effect of changes in foreign exchange rates	_		(20)		(57)	(39)		(116)
Balance as of December 31, 2017	\$	-	584,763	10,563,890	1,956,057	172,410		13,277,120
Carrying value:								
Balance as of December 31, 2018	\$	2,546,534	1,499,099	7,504,112	2,001,581	271,231	1,745,695	15,568,252
Balance as of January 1, 2017	\$	2,546,534	1,645,252	6,120,628	2,489,419	187,243	359,902	13,348,978
Balance as of December 31, 2017	\$	2,546,534	1,568,354	7,213,223	2,299,378	191,534	649,245	14,468,268

Note 1: Inventories, prepayments for business facilities, and other prepaid expenses were reclassified as property, plant and equipment.

Note 2: Inventories and prepayments for business facilities were reclassified as property, plant and equipment. Also, property, plant and equipment were adjusted by using the constructional refund.

(i) Pledge to secure

As of December 31, 2018 and 2017, property, plant and equipment were subject to a registered debenture to secured bank loans and line of credit, the collateral for these long-term borrowings was disclosed in note 8.

(ii) Property, plant and equipment under construction

The Group rented some pieces of land and entered into different agreements for the construction of its new factories on the said lands. As of December 31, 2018, the Group has partially paid the price of \$375,281 thousand.

(iii) For the years ended December 31, 2018 and 2017, capitalized interest expenses amounted to \$44,164 thousand and \$21,357 thousand, respectively. The annual interest rates at which these interest expenses were capitalized ranged from 1.14%~1.34% and 1.15%~1.56%, respectively.

(l) Investment property

The movements in investment property for the years ended December 31, 2018 and 2017 were as follows:

		Land	Buildings and structures	Total
Cost:		Land	structures	Total
Balance as of January 1, 2018	\$	963,127	529,952	1,493,079
Additions	Ψ	-	-	-
Balance as of December 31, 2018	\$	963,127	529,952	1,493,079
Balance as of January 1, 2017	\$	963,127	536,008	1,499,135
Additions		-	1,258	1,258
Reclassification (Note)		_	(7,314)	(7,314)
Balance as of December 31, 2017	\$	963,127	529,952	1,493,079
Accumulated depreciation:				
Balance as of January 1, 2018	\$	-	51,177	51,177
Depreciation			20,374	20,374
Balance as of December 31, 2018	\$		71,551	71,551
Balance as of January 1, 2017	\$	-	31,022	31,022
Depreciation		-	20,155	20,155
Balance as of December 31, 2017	\$		51,177	51,177
Carrying amount:				
Balance at December 31, 2018	\$	963,127	458,401	1,421,528
Balance at January 1, 2017	\$	963,127	504,986	1,468,113
Balance at December 31, 2017	\$	963,127	478,775	1,441,902
Fair value:				
Balance as of December 31, 2018			\$_	1,632,183
Balance as of December 31, 2017			\$_	1,576,821

Note: Investment property were adjusted by using the constructional refund.

When measuring the fair value of its investment property, the Group considered the present value of net cash flows to be generated from leasing the property. The expected net cash flows were discounted using the yield to reflect its specified inherit risk on the net cash flows. The inputs to the valuation technique used for measuring fair value were categorized as a Level 2 fair value.

The yield applied to the net annual rentals to determine fair value of property for which current prices in an active market were unavailable, was as follows:

Location		2018		
Hsinchu	0.24%			
Taoyuan	1.41%			

As of December 31, 2018 and 2017, investment property were subject to a registered debenture to secured bank loans and line of credit, the collateral for these long-term borrowings was disclosed in note 8.

(m) Intangible assets

(i) The movements in intangible assets for the years ended December 31, 2018 and 2017 were as follows:

		echnical	Computer software and information systems	Goodwill	Land use	Others	Total
Cost:					8 ***		
Balance as of January 1, 2018	\$	46,051	119,718	123,327	31,448	26,059	346,603
Acquisition from business combinations		-	1,802	318,763	-	-	320,565
Additions		-	53,679	-	1,765	3,853	59,297
Reclassification (Note)		(46)	9,957	-	-	-	9,911
Disposals		-	(34,465)	-	-	(4,944)	(39,409)
Effect of changes in foreign exchange rates	_	-	180	3,978	(622)	660	4,196
Balance as of December 31, 2018	\$	46,005	150,871	446,068	32,591	25,628	701,163
Balance as of January 1, 2017	\$	46,051	84,736	133,645	-	27,768	292,200
Additions		-	51,873	-	31,247	4,106	87,226
Reclassification (Note)		-	70	-	-	-	70
Disposals		-	(16,961)	-	-	(4,104)	(21,065)
Effect of changes in foreign exchange rates	_			(10,318)	201	(1,711)	(11,828)
Balance as of December 31, 2017	\$	46,051	119,718	123,327	31,448	26,059	346,603
Amortization:							
Balance as of January 1, 2018	\$	27,494	52,510	-	53	8,702	88,759
Acquisitions through business combination		-	960	-	-	-	960
Amortization		3,834	50,798	-	637	8,319	63,588
Reclassification		(19)	19	-	-	-	-
Disposals		-	(34,465)	-	-	(4,944)	(39,409)
Effect of changes in foreign exchange rates	_	-	60	<u> </u>	(13)	265	312
Balance as of December 31, 2018	\$	31,309	69,882		677	12,342	114,210
Balance as of January 1, 2017	\$	23,656	34,930	-	-	4,075	62,661
Amortization		3,838	34,542	-	52	8,966	47,398
Disposals		-	(16,961)	-	-	(4,104)	(21,065)
Effect of changes in foreign exchange rates	_		(1)		1	(235)	(235)
Balance as of December 31, 2017	\$	27,494	52,510		53	8,702	88,759
Carrying value:							
Balance as of December 31, 2018	\$	14,696	80,989	446,068	31,914	13,286	586,953
Balance as of January 1, 2017	\$	22,395	49,806	133,645		23,693	229,539
Balance as of December 31, 2017	\$	18,557	67,208	123,327	31,395	17,357	257,844

Note: Other current asset were reclassified as intangible assets.

(ii) Amortization expense recognized in profit or loss

For the years ended December 31, 2018 and 2017, the amortization expenses of intangible assets were as follows:

	2018	2017
Operating costs	\$ 18,131	15,164
Operating expenses	 45,457	32,234
	\$ 63,588	47,398

(iii) Impairment testing for goodwill

1) Chainwin Cayman

The goodwill of \$132,278 thousand was derived from the acquisition of and the control over Chainwin Cayman by the Group on August 19, 2016. The goodwill was mainly attributed to the profitability of the hog farming in Mainland China. Chainwin Cayman is regarded as a cash-generating units (the "CGU") to generate cash inflows that are independent of those from others. Therefore, the amount on impairment loss of goodwill, which was evaluated by using the value in use, exceeds the carrying amount of the net asset.

Also, the Group estimated its operating revenue for certain periods based on the purchase price allocation valuation report issued by the specialist, who was entrusted by the Group. The preceding estimation was analyzed based on the financial forecasts from 2016 to 2021. The construction of certain factory farms of Chainwin Cayman had been delayed, resulting in failure to increase the scale on farm raising. Therefore, the actual operating revenue for the year of 2018 and 2017 decreased by 88% and 58%, respectively, which were lower than the original forecast.

On December 31, 2018 and 2017, the recoverable amount determined by the value-in-use for the cash-generating unit is higher than the carrying amount. Therefore, there is no impairment loss should be recognized.

The total amount of goodwill has been allocated to the agriculture technology for the Group's impairment testing purpose. The CGU are used as the minimum level for investment return of goodwill supervised by the management.

The Group's goodwill has been tested for impairment at the end of the annual reporting period and the recoverable amount is determined based on the value-in-use. The key assumption used in the estimation of the value-in-use of the CGU were as follows:

a) The future cash flow was based on expectations of future operations, taking into account past experience, adjusted for the anticipated revenue growth. Revenue growth was projected taking into account the average growth levels experienced over the past year, and the estimated sales volume and price growth for the next five years. The assumptions were in line with the information obtained from external local market who publish a statistical analysis on market trends.

b) The assumption on before-tax discount rate is based on the weighted average cost of capital. As of December 31, 2018 and 2017, the applied before-tax discount rate of the recoverable amount of the units were 8.95% and 9.72%, respectively.

2) PLB

The goodwill of \$318,763 thousand was derived from the Group became the largest shareholder of and obtained control over PBL on July 12, 2018. The goodwill was mainly attributed to the profitability in microarray services market and the know-how of PLB work force. PBL is regarded as a CGU to generate cash inflows that are independent of those from others. Therefore, the amount on impairment loss of goodwill, which was evaluated by using the value in use, exceeds the carrying amount of the net asset.

On December 31, 2018, the recoverable amount determined by the value-in-use for the cash-generating unit is higher than the carrying amount. Therefore, there is no impairment loss should be recognized.

The total amount of goodwill has been allocated to the gene chip testing service for the Group's impairment testing purpose. The CGU are used as the minimum level for investment return of goodwill supervised by the management.

The Group's goodwill has been tested for impairment at the end of the annual reporting period and the recoverable amount is determined based on the value-in-use. The key assumption used in the estimation of the value-in-use of the CGU were as follows:

- a) The future cash flow was based on expectations of future operations, taking into account past experience, adjusted for the anticipated revenue growth. Revenue growth was projected taking into account the average growth levels experienced over the past year, and the estimated sales volume and price growth for the next seven years.
- b) The assumption on before-tax discount rate is based on the weighted average cost of capital. As of December 31, 2018, the applied before-tax discount rate of the recoverable amount of the units was 9.49%.
- (iv) As of December 31, 2018 and 2017, the intangible assets were not pledged.

(n) Other current assets and other non-current assets

	Dec	ember 31, 2018	December 31, 2017
Other receivables from metal recycling	\$	108,738	159,618
Tax refund receivables		70,603	123,967
Long-term prepaid rent		3,150	31,153
Prepayment for purchases and prepaid expenses		91,062	89,079
Restricted assets		41,799	25,655
Refundable deposits		46,556	51,748
Other receivables		16,550	14,415
Others		54,624	15,085
	\$	433,082	510,720

Long-term prepaid rent, which the Group signed agreements with agriculture developing committees and other institutions in China to acquire lands for lease and for hog farming purpose. The durations of the agreements are 5~30 years. The payments for rental were made in accordance with the signed agreements. The Group entered into land lease agreements amounting to RMB 78,366 thousand.

(o) Short-term borrowings

			December 31,	December 31, 2017
	Unsecured short-term borrowings	\$_	2018	
	Unused bank credit lines for short-term borrowings	\$	2,190,784	2,361,382
	Unused bank credit lines for short-term and long-term borrowings	\$ _	3,068,629	510,778
	Annual interest rate	=	-	<u>1.997%~2.00%</u>
(p)	Long-term borrowings			
			December 31, 2018	December 31, 2017
	Unsecured long-term borrowings (settled in NTD)	\$	December 31, 2018 4,230,000	December 31, 2017 5,578,000
	Unsecured long-term borrowings (settled in NTD) Secured long-term borrowings (settled in NTD)			
			4,230,000	5,578,000
	Secured long-term borrowings (settled in NTD)		4,230,000	5,578,000 679,536
	Secured long-term borrowings (settled in NTD) Less: long-term liabilities, current portion		4,230,000 1,572,600	5,578,000 679,536 (352,056)
	Secured long-term borrowings (settled in NTD) Less: long-term liabilities, current portion Total		4,230,000 1,572,600 - 5,802,600	5,578,000 679,536 (352,056) 5,905,480

As of December 31, 2018, the remaining balances of the borrowing due were as follows:

Year due	Amount	
October 1, 2020~December 31, 2020	\$	1,558,800
October 1, 2021~December 31, 2021		2,495,600
October 1, 2022 and after		1,748,200
	\$	5,802,600

- (i) The unused bank credit lines for short-term and long-term borrowings at the reporting date were disclosed in note 6(o).
- (ii) The collateral for these long-term borrowings was disclosed in note 8.

(q) Operating lease

(i) Lease-lessor

The Group leased its investment property under operating lease, which was disclosed in note 6(l).

For the years ended December 31, 2018 and 2017, the rental income recognized in other income amounting to \$79,426 thousand and \$84,383 thousand, respectively.

(ii) Lease-lessee

The Group leases a number of factories, offices, parking lots and lands etc. under operating lease.

The leases typically run for a period of 1 to 30 years. For the years ended December 31, 2018 and 2017, the rent expenses amounted to \$70,989 thousand and \$51,158 thousand, respectively, which were recorded as operating costs and operating expenses.

(r) Employee benefits

(i) Defined benefit plans

Reconciliation of defined benefit obligation at present value and plan asset at fair value were as follows:

	Dec	ember 31, 2018	December 31, 2017
Present value of the defined benefit obligations	\$	141,119	102,900
Fair value of plan assets		(42,653)	(40,312)
Net defined benefit liabilities (Note)	\$	98,466	62,588

(Note) Recognized liabilities for defined benefit obligations were recognized as other non-current liabilities.

The Group makes defined benefit plan contributions to the pension fund account in the Bank of Taiwan that provides pensions for employees upon retirement. Plans (covered by the Labor Standards Law) entitle a retired employee to receive an annual payment based on years of service and average salary prior to six months of retirement.

1) Composition of plan assets

The Group set aside pension funds in accordance with the legislation from the Ministry of Labor and managed by the Bureau of Labor Founds. The annual budget for the allocation of the minimum income cannot be lower than the income calculated based on the interest rate of the banks' two-year time deposit in accordance with the legislation "Management and Utilization of the Labor Pension Funds".

The Group's labor pension reserve account balance in the Bank of Taiwan amounted to \$42,653 thousand as of December 31, 2018. The utilization of the labor pension fund assets includes the asset allocation and the yield of the fund. Please refer to the website of Bureau of Labor Founds, Ministry of Labor.

2) The movements in present value of the defined benefit obligations

For the years ended December 31, 2018 and 2017, movements in the present value of the defined benefit obligations for the Group were as follows:

	2018	2017
Defined benefit obligations as of January 1	\$ 102,900	100,272
Current service costs and interest cost	3,205	2,980
Remeasurements of the net defined benefit liability (asset):		
 Actuarial (gains) losses arising from financial assumption 	26,107	(3,234)
-Experience adjustments	 8,907	2,882
Defined benefit obligations as of December 31	\$ 141,119	102,900

3) The movements in fair value of the defined benefit plan assets

For the years ended December 31, 2018 and 2017, movements in the fair value of the plan assets were as follows:

	 2018	2017
Fair value of plan assets as of January 1	\$ 40,312	38,844
Interest revenue	647	533
Remeasurements of the net defined benefit liability (asset):		
 Return on plan assets (excluding the interest revenue) 	963	(151)
Amounts contributed to plan	 731	1,086
Fair value of plan assets as of December 31	\$ 42,653	40,312

(Continued)

4) The movement in effect of plan asset ceiling

For the years ended December 31, 2018 and 2017, there were no changes in the effect of plan asset ceiling.

5) The expenses recognized in profit or losses

For the years ended December 31, 2018 and 2017, the expenses recognized in profit or losses for the Group were as follows:

	2018	2017
Current service costs	\$ 1,579	1,633
Net interest expense of net defined benefit		
liabilities (assets)	 979	814
	\$ 2,558	2,447
	2018	2017
Administrative expenses	\$ 2,558	2,447

6) The remeasurements of the net defined benefit liabilities (assets) recognized in other comprehensive income

For the years ended December 31, 2018 and 2017, the remeasurements of the net defined benefit liabilities (assets) recognized in other comprehensive income were as follows:

	2018		2017	
Balance as of January1	\$	30,666	30,867	
Recognized in the current period		34,051	(201)	
Balance as of December 31	\$	64,717	30,666	

7) Actuarial assumptions

At the end of the reporting date, the principal actuarial assumptions were as follows:

	December 31, 2018	December 31, 2017
Discount rate	1.375 %	1.625 %
Future salary rate increases	4.500 %	3.000 %

The Group expects to make contributions of \$235 thousand to the defined benefit plans in the next year starting from December 31, 2018. The weighted average duration of the defined benefit plans is 16.94 years.

8) Sensitivity analysis

As of December 31, 2018 and 2017, the changes in main actuarial assumptions might have an impact on the present value of the defined benefit obligation as follows:

	_	Influences of defined benefit obligations			
		Increase by 0.25%	Decrease by 0.25%		
Balance as of December 31, 2018		_			
Discount rate	\$	(4,288)	4,475		
Future salary rate increases		4,264	(4,124)		
Balance as of December 31, 2017					
Discount rate	\$	(3,079)	3,234		
Future salary rate increases		3,131	(3,005)		

There is no change in other assumptions when performing the above-mentioned sensitivity analysis. In practice, assumptions may be interactive with each other. The method used on sensitivity analysis is consistent with the calculation on the net pension liabilities.

There is no change in the method and assumptions used in the preparation of sensitivity analysis for 2018 and 2017.

(ii) Defined contribution plans

The Group set aside 6% of the contribution rate of the employee's monthly wages to the Labor Pension personal account of the Bureau of Labor Insurance in accordance with the provisions of the Labor Pension Act. The Group set aside a fixed amount to the Bureau of Labor Insurance without the payment of additional legal or constructive obligations.

The Group set aside \$93,963 thousand and \$75,907 thousand, respectively, of the pension under the pension plan costs to the Bureau of Labor Insurance for the years ended December 31, 2018 and 2017.

(iii) The Group's Mainland China subsidiaries have a defined contribution plan. Monthly contributions to an independent fund administered by the government in accordance with the pension regulations in the People's Republic of China (PRC) are based on certain percentage of employees' monthly salaries and wages. Other than the monthly contributions, the Group has no further obligations. For the years ended December 31, 2018 and 2017, the Group recognized the pension costs in accordance with the pension regulations and amounted to \$3,397 thousand and \$1,767 thousand, respectively.

(s) Income tax

The amendments to the "Income Tax Act" was passed by the office of the President of the Republic of China (Taiwan) on February 7, 2018, and the corporate income tax rate has increased from 17% to 20% from FY 2018.

(i) Income tax expense

The amount of income tax expense for the years ended December 31, 2018 and 2017 were as follows:

	 2018	2017
Current tax expense (benefit)		
Current period	\$ 764,816	815,583
Adjustment for prior periods	 (11,894)	(80)
Subtotal	 752,922	815,503
Deferred tax expense (benefit)		
Origination and reversal of temporary differences	(77,567)	(2,119)
Adjustment in tax rate	 (6,794)	
Subtotal	 (84,361)	(2,119)
Income tax expense	\$ 668,561	813,384

The amount of income tax (expense) benefit recognized in other comprehensive income for the years ended December 31, 2018 and 2017 were as follows:

	2018	2017	
Components of other comprehensive income that will not be classified to profit or loss:			
The remeasurements of defined benefit plans	\$ 7,730	(34	<u>4</u>)

Reconciliation of income tax expenses (benefit) and profit before tax were as follows:

	2018	2017
Profit before tax	\$ 3,734,623	4,528,679
Estimated income tax calculated using the Company's domestic tax rate	\$ 746,924	769,875
Adjustment in tax rate	(6,794)	-
Tax-exempt income	(16,660)	(40,557)
Investment tax credits	(61,550)	(48,441)
Change in unrecognized deductible temporary differences	33,152	-
Change in provision in prior periods	(11,894)	(80)
10% surtax on unappropriated earnings	42,928	97,848
Others	 (57,545)	34,739
	\$ 668,561	813,384

(ii) Deferred tax assets and liabilities

1) Unrecognized deferred tax assets and liabilities

Deferred tax assets have not been recognized in respect of the following items:

	De	cember 31, 2018	December 31, 2017
Tax effect of deductible temporary differences	\$	51,984	-
The carry forward of unused tax losses		158,209	
	\$	210,193	

The R.O.C. Income Tax Act allows net losses, as assessed by the tax authorities, to offset taxable income over a period of ten years for local tax reporting purposes. Deferred tax assets have not been recognized in respect of these items because it is not probable that future taxable profit will be available against which the Group can utilize the benefits therefrom.

As of December 31, 2018, the information of the Group's unutilized business losses for which no deferred tax assets were recognized are as follows:

Year of loss	Unutilize	ed business loss	Expiry date
2009	\$	95,967	2019
2010		48,013	2020
2011		74,383	2021
2012		44,302	2022
2013		49,138	2023
2014		53,221	2024
2015		50,740	2025
2016		77,243	2026
2017		142,749	2027
2018		155,289	2028
	\$	791,045	

As of December 31, 2018 and 2017, there were no deferred tax liabilities have not been recognized.

2) Changes in the amount of deferred tax assets and liabilities for the years ended December 31, 2018 and 2017 were as follows:

		Allowance for obsolete inventories	Difference in depreciation expense between financial and tax method	Others	Total
Deferred tax assets:			_		
Balance as of January 1, 2018	\$	22,992	23,256	30,952	77,200
Recognized in profit or loss		9,482	35,705	5,685	50,872
Recognized in other comprehensive income	· _			7,730	7,730
Balance as of December 31, 2018	\$_	32,474	58,961	44,367	135,802
Balance as of January 1, 2017	\$	32,951	13,949	28,454	75,354
Recognized in profit or loss		(9,959)	9,307	2,532	1,880
Recognized in other comprehensive income	· _			(34)	(34)
Balance as of December 31, 2017	\$_	22,992	23,256	30,952	77,200
	re	Unrealized vestment income ecognized under equity method	Unrealized exchange rate	Total	
Deferred tax liabilities:					
Balance as of January 1, 2018	\$	33,489	-	33,489	
Recognized in profit or loss	_	(33,489)		(33,489)	
Balance as of December 31, 2018	\$_				
		_			
Balance as of January 1, 2017	\$	31,718	2,010	33,728	
Recognized in profit or loss	_	1,771	(2,010)	(239)	
Balance as of December 31, 2017	\$_	33,489		33,489	

(iii) Examination and approval

The Company's corporate income tax returns for all the years through 2016 were assessed and approved by the tax authorities National Taxation Bureau of the Northern Area, Ministry of Finance.

(t) Capital and other equity

(i) Ordinary share issuance

As of December 31, 2018 and 2017, the Company's authorized share capital consisted of 10,000,000 thousand shares of ordinary share, with \$10 dollars par value per share, of which 423,814 thousand shares, and 422,666 thousand shares, respectively, were issued and outstanding. The Company has reserved \$1,000,000 thousand for employee stock options.

Reconciliations of shares outstanding for the years ended December 31, 2018 and 2017:

	Ordinary share (in thousands)		
	2018	2017	
Balance as of January 1	422,666	407,666	
Issue of shares	-	20,000	
Retirement of treasury share	-	(5,000)	
Restricted shares of stock issued for employees	1,148		
Balance as of December 31	423,814	422,666	

A resolution was passed during the general meeting of shareholders held on June 16, 2017 for the issuance of ordinary shares for cash within a year under private placement, a resolution was passed during the board meeting held on December 8, 2017 for the issuance of \$20,000 thousand ordinary shares, with subscription price \$277 per share, amounting to \$5,540,000 thousand, with December 22, 2017 as the record date of capital increase. The relevant statutory registration procedures have since been completed.

The aforementioned private placement of ordinary shares and the transfer of any subsequently obtained bonus shares would be subject to section 43-8 requirements under the Securities and Exchange Act. The Company can only apply for these shares to be traded publicly after a three-year period has elapsed from the delivery date of the private placement securities, and after applying for a public offering with the Financial Supervisory Commission.

On June 15, 2018, the shareholders' meeting approved a resolution to issue 1,700 thousand new restricted employee shares, at \$10 dollars par value per share, amounting to \$17,000 thousand, to full-time regular employees who meet specific requirements. The above transaction had been approved by the Financial Supervisory Commission. In accordance with the resolution of Board of Directors meeting held on September 14, 2018, the Company issued 1,148 thousand shares, at \$10 dollars par value per share, amounting to \$11,480 thousand. The aforementioned stock issuance had been registered with the government authorities.

As of December 31, 2017, the Company issued 11,121 thousand units of Global Depositary Receipts (GDRs), representing 55,605 thousand ordinary shares of stock of the Company.

As of December 31, 2018, the Company has terminated the GDRs.

(ii) Capital surplus

Balance of capital surplus at the reporting date were as follows:

	December 31, 2018		December 31, 2017	
Additional paid-in capital	\$	9,031,035	9,031,035	
Changes in equity of associates and joint ventures accounted for using equity method		635	21,163	
Employee stock options		3,810	698	
Restricted shares of stock issued for employees		163,877		
	\$	9,199,357	9,052,896	

In accordance with the Company Act, realized capital reserves can only be reclassified as share capital or be distributed as cash dividends after offsetting against losses. The aforementioned capital reserves include share premiums and donation gains. In accordance with the Regulations Governing the Offering and Issuance of Securities by Securities Issuers, the actual amount of capital reserves to be reclassified under share capital shall not exceed 10% of the actual share capital amount.

(iii) Retained earnings

The Company's Articles of Incorporation stipulate that 10% of the balance of annual income or earnings after deducting accumulated deficit, if any, must be set aside as a legal reserve and a special capital reserve is likewise appropriated or the annual income or earnings are retained in accordance with the relevant laws or regulations or as requested by the authorities. Otherwise, the distribution of remaining balance of the earnings should be further proposed by the Board of Directors and resolved by the shareholders' meeting. And the cash dividends should not lower than 10% of the total stockholders' dividends.

As the Company is a technology and capital-intensive enterprise and is in its growth phase, it has adopted a more prudent approach in appropriating its remaining earnings as its dividend policy in order to sustain its long-term capital needs and thereby maintain continuous development and steady growth.

1) Legal reserve

According to the amended Company Act which was announced in January 2012, 10% of net income should be set aside as statutory earnings reserve, until it equals the share capital. If the Company experienced profit for the year, the meeting of shareholders shall decide on the distribution of the legal reserve either by new shares or by cash of up to 25% of the actual share capital.

2) Special reverse

In accordance with Permit No. 1010012865 issued by the FSC on April 6, 2012, a portion of current period earnings and undistributed prior period earnings shall be reclassified as a special earnings reserve during earnings distribution. The amount to be reclassified should be equal to the total net reduction of current period of other shareholders' equity resulting from the IFRS first-time adoption. Similarly, a portion of undistributed prior period earnings shall be reclassified as a special earnings reserve (and does not qualify for earnings distribution) to account for cumulative changes to other shareholders' equity pertaining to prior periods due to the IFRS first time adoption. Amounts of subsequent reversals pertaining to the net reduction of other shareholders' equity shall qualify for additional distributions.

3) Appropriations of earnings

The appropriations of earnings for 2017 and 2016 had been approved in shareholders' meetings held on June 15, 2018 and June 16, 2017, respectively. The dividends were as follows:

Cash dividends 2017 2016 2,958,665 1,811,999

The above-mentioned appropriations of earning for 2017 and 2016 were consistent with the resolutions of the meeting of the Board of Directors.

The related information mentioned above can be found on websites such as the Market Observation Post System.

(iv) Treasury shares

In 2017, in accordance with the requirements under article 28-2 of the Securities and Exchange Act, the Company repurchased 1,080 thousand shares as treasury shares in order to protect the Company's integrity and shareholders' equity. As of December 31, 2017, all the shares repurchased by the Company have been cancelled. There was no transaction in 2018.

In accordance with Securities and Exchange Act requirements as stated above, the number of shares repurchased should not exceed 10 percent of the number of common shares issued. Also, the total amount of the repurchased shares should not exceed the sum of retained earnings, paid-in capital in excess of par value and other realized capital surplus. The shares and dollar amount that may be repurchased do not exceed the upper limit, which were calculated based on the audited or reviewed financial reports by a certified accountant, for the latest accounting period prior to a resolution of a meeting of the Board of Directors.

In accordance with the requirements of Securities and Exchange Act, treasury shares held by the Company should not be pledged, and do not hold any shareholder rights before their transfer.

(v) Other equity interests, net of tax

Balance as of December 31, 2018 Society of Landscape Society of Statements Society of Statement		differ trans foreign	change rences on slation of n financial tements	Unrealized gains (losses) on financial assets at fair value through other comprehensive income	Unrealized gains (losses) on available-for- sale financial assets	Other Unearned compensation for restricted shares of employees
Ralances at the beginning after adjusted (100,208) (1,401,839) (1,568,176) - (1,568,	Balance as of January 1, 2018	\$	(100,208)	-	1,568,176	-
Balances at the beginning after adjusted (100,208) 1,401,839 - - - -	1 11			1 401 020	(1.560.156)	
Foreign currency differences (net of tax): The Group Associates (29,921) - Disposal of investments accounted for using equity method Unrealized gain (losses) on equity instruments at fair value through other comprehensive income (net of tax) Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other comprehensive income (net of tax) Unearned compensation for restricted shares of employees Balance as of December 31, 2018 Salone Exchange differences on translation of foreign financial statements Balance as of January 1, 2017 Foreign currency differences (net of tax): The Group Associates Changes in fair value of available-for-sale financial assets (net of tax) Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of foreign operations 1,991	*	-	(100 208)		(1,368,176)	
The Group Associates (29,921)			(100,208)	1,401,839	-	-
Associates (29,921)			05 350			
Disposal of investments accounted for using equity method Unrealized gain (losses) on equity instruments at fair value through other comprehensive income (net of tax) Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other comprehensive income (net of tax) Unearned compensation for restricted shares of employees Balance as of December 31, 2018 Society Exchange differences on translation of foreign financial assets (net of tax): The Group Associates Changes in fair value of available-for-sale financial assets (net of tax) Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of foreign operations (1,421) - (352,044) - (91,405) - (158,40) - (91,405) - (158,40) - (91,405) - (158,40) - (91,405) - (158,40) - (91,405	•		,	-	-	-
equity method Unrealized gain (losses) on equity instruments at fair value through other comprehensive income (net of tax) Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other comprehensive income (net of tax) Unearned compensation for restricted shares of employees Balance as of December 31, 2018 S Changes in fair value of available-for-sale financial assets (net of tax) Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of foreign operations (1,421) - (352,044) - (352,044) - (91,405) - (158,80) - (1			(29,921)	-	-	-
instruments at fair value through other comprehensive income (net of tax) - (352,044)	1		(1,421)	-	-	-
Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other comprehensive income (net of tax) Unearmed compensation for restricted shares of employees Balance as of December 31, 2018 Salance as of December 31, 2018 Balance as of January 1, 2017 Foreign currency differences (net of tax): The Group Associates Changes in fair value of available-for-sale financial assets (net of tax) Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of foreign operations Cher comprehensive income reclassified to profit or loss upon disposal of foreign operations 1,991 - (91,405) - (91,405) - (91,405) - (91,405) - (91,405) - (1188 Balance as of January 1, 2018 Exchange differences on translation of foreign operations Exchange differences on translation of freeign financial assets (1158,600)	instruments at fair value through other		_	(352.044)	_	_
Unearned compensation for restricted shares of employees Balance as of December 31, 2018 Solve the statements of translation of foreign financial statements Balance as of January 1, 2017 Foreign currency differences (net of tax): The Group Associates Changes in fair value of available-for-sale financial assets (net of tax) Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of available-for-sale financial assets (net of tax) Other comprehensive income reclassified to profit or loss upon disposal of foreign operations - (158,60	Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other comprehensive		_	, ,	_	_
Balance as of December 31, 2018 Solve the property of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of foreign operations Other comprehensive income reclassified to profit or loss upon disposal of foreign operations Sexchange differences on translation of foreign financial assets (as of January 1, 2017 Exchange differences on translation of foreign financial assets (net of tax): Exchange differences on translation of foreign financial assets (net of tax): Unrealized gain (losses) on available for-sale financial assets (110,108) - (110,108) - (110,108) - (110,108) - (17,9) (17,9) (158,0) (158,0)	,			(71,403)		
Exchange differences on translation of foreign financial statements Balance as of January 1, 2017 Foreign currency differences (net of tax): The Group Associates Changes in fair value of available-for-sale financial assets (net of tax) Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of available-for-sale financial assets (net of tax) Other comprehensive income reclassified to profit or loss upon disposal of foreign operations Texchange differences (losses) on available for-sale financial assets (110,108) - (110,108			-			(158,308)
Balance as of January 1, 2017 \$ 1,719 \$ 760,1 \$ Foreign currency differences (net of tax): The Group \$ (110,108) \$ - \$ Changes in fair value of available-for-sale financial assets (net of tax) \$ - \$ 973,5 \$	Balance as of December 31, 2018	\$	(36,200)	958,390		(158,308)
Foreign currency differences (net of tax): The Group Associates Changes in fair value of available-for-sale financial assets (net of tax) Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of available-for-sale financial assets (net of tax) Other comprehensive income reclassified to profit or loss upon disposal of foreign operations 1,991 - (110,108) - (7,9)			_	on translation foreign financ	of (losses)	on available- ale financial assets
The Group Associates Changes in fair value of available-for-sale financial assets (net of tax) Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of available-for-sale financial assets (net of tax) Other comprehensive income reclassified to profit or loss upon disposal of foreign operations (110,108) - 973,9 (7,9) (158,0)	Balance as of January 1, 2017		\$		1,719	760,178
Associates 6,190 - Changes in fair value of available-for-sale financial assets (net of tax) - 973,9 Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) - (7,9) Cumulative gains (losses) reclassified to profit or loss upon disposal of available-for-sale financial assets (net of tax) - (158,6) Other comprehensive income reclassified to profit or loss upon disposal of foreign operations 1,991 -	Foreign currency differences (net of ta	ax):				
Changes in fair value of available-for-sale financial assets (net of tax) Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of available-for-sale financial assets (net of tax) Other comprehensive income reclassified to profit or loss upon disposal of foreign operations 1,991 -	The Group			(11	0,108)	-
assets (net of tax) - 973,9 Adjustments in reclassification of the impairment of available-for-sale financial assets (net of tax) - (7,9 Cumulative gains (losses) reclassified to profit or loss upon disposal of available-for-sale financial assets (net of tax) - (158,0) Other comprehensive income reclassified to profit or loss upon disposal of foreign operations 1,991 -	Associates				6,190	-
of available-for-sale financial assets (net of tax) Cumulative gains (losses) reclassified to profit or loss upon disposal of available-for-sale financial assets (net of tax) Other comprehensive income reclassified to profit or loss upon disposal of foreign operations - (158,0)	_	sale fin	ancial	-		973,961
loss upon disposal of available-for-sale financial assets (net of tax) - (158,0) Other comprehensive income reclassified to profit or loss upon disposal of foreign operations 1,991 -				-		(7,908)
or loss upon disposal of foreign operations 1,991 -	loss upon disposal of available-for-	to profi- sale fina	it or ancial	-		(158,055)
7.1 47 4.44.4					1,991	
Balance as of December 31, 2017 \$	Balance as of December 31, 2017		\$_	(10	00,208)	1,568,176

(u) Share-based payment

(i) The Company insurance restricted shares of stock for employee

On June 15, 2018, the shareholders' meeting approved a resolution to issue 1,700 thousand new restricted employee shares to full-time regular employees who meet specific requirements. The above transaction had been approved by the Financial Supervisory Commission. The Company decided that the grant date was set on August 22, 2018 and in accordance with the resolution of Board of Directors meeting held on September 14, 2018, the Company issued 1,148 thousand shares (the date of capital increase was set on September 14, 2018), with the fair-value on grant date amounting to \$175,357 thousand.

As of December 31, 2018, there were 1,148 thousand outstanding shares.

Those employees with the restricted stock awards (RSA) are entitled to purchase shares without cost under the conditions that these employees will continue to provide service to the Company for at least 3 years (from the grant date), and meet certain requirement. Based on the Company's requirements, the restricted employee shares should be fully vested in the third year after the grant date. These shares shall not be sold, pledged, transferred, gifted, or disposed by any other means to third parties during the custody period. The voting rights of these shareholders need not be executed by the custodian, and will act based on law and regulations. The cash and stock dividends distributed during the custody period will be granted to the employees. If the shares remain unvested after the vesting period, the Company will redeem all the unvested shares, and cancel the shares thereafter.

For the years ended December 31, 2018, the Company recognized the compensation cost of \$17,049 thousand for the aforementioned RSA. There was no transaction in 2017.

(ii) The subsidiary of PBL of employee stock option plans (ESOPs)

	2018 ESOPS
Grant date	2018.4.20
Number of options granted (unit)	5,560
Number of common shares eligible (share)	1,000
Contract period	2018.4.20~2026.4.19
Vesting period	2018.4.20~2021.4.19
Recipients	Employees of PBL

2010 ECOD.

PBL used the Black-Scholes Model in measuring the fair value of its employee stock option at the date of grant. The main inputs to the valuation model were as follows:

	2018 employee stock options exercise in the 1st year	2018 employee stock options exercise in the 2 nd year	2018 employee stock options exercise in the 3 rd year
Fair value at grant date (dollars)	\$ 3.93	\$ 4.13	\$ 4.32
Share price at grant date (dollars)	\$ 11.29	\$ 11.29	\$ 11.29
Exercise price (dollars)	\$ 11	\$ 11	\$ 11
Expected volatility	40%	40%	40%
Expected life	4.5 years	5 years	5.5 years
Risk-free interest rate	0.70%	0.74%	0.77%

Details of the employee stock options were as follows:

	December 31, 2018					
	exe (ex	hted ave rcise pri pressed dollars)	ice	Number of options (expressed in thousands)		
Outstanding at January 1	\$	-		-		
Granted during the year			11	5,560		
Outstanding at December 31			11	5,560		
Exercisable at December 31		-		-		

From acquisition date to December 31, 2018, PLB recognized the compensation cost of \$6,807 thousand for the aforementioned ESOPs. There was no transaction for the years ended December 31, 2017.

(v) Earnings per share ("EPS")

For the years ended December 31, 2018 and 2017, the Company's earnings per share were calculated as follows:

	 2018	2017
Basic earnings per share:		_
Profit belonging to common shareholders	\$ 3,124,454	3,764,200
Weighted average number of outstanding shares of common stock (in thousands)	422,666	403,214
Basic earnings per share (in dollars)	\$ 7.39	9.34
Diluted earnings per share:	 	
Profit belonging to common shareholders	\$ 3,124,454	3,764,200
Weighted average number of outstanding shares of common stock (in thousands)	 422,666	403,214
Effect of potentially dilutive common stock		
Employee remuneration (in thousands)	 2,381	1,510
Weighted average number of common stock (diluted) (in thousands)	 425,047	404,724
Diluted earnings per share (in dollars)	\$ 7.35	9.30

(Continued)

For the years ended December 2018, the new restricted employee shares have anti-diluted effect, therefore, the new restricted employee shares were not included in the calculation of effect on potentially diluted common stock.

(w) Revenue from contracts with customers

(i) Disaggregation of revenue

			2018	
	Segment- Foundry		Segment- Other	Total
Primary geographical markets:				
Asia	\$	10,011,798	357,206	10,369,004
Americas		4,169,406	-	4,169,406
Taiwan		2,111,067	20,726	2,131,793
Europe		640,513		640,513
	\$	16,932,784	377,932	17,310,716
Main product / services lines:				
Foundry	\$	16,932,330	-	16,932,330
Other		454	377,932	378,386
	\$	16,932,784	377,932	17,310,716

(ii) Balance of contracts

	De	cember 31, 2018	January 1, 2018	
Notes receivable	\$	459	-	
Accounts receivable		1,424,223	1,595,442	
Less: allowance doubtful for accounts		(2,317)	(2,086)	
	\$	1,422,365	1,593,356	
Contract liabilities (Note)	\$	112,694	99,514	

(Note) Contract liabilities are included in other current liabilities.

For details of accounts receivable and allowance for impairment, please refer to note 6(c).

The major change in the balance of contract liabilities is the difference between the time frame in the performance obligation to be satisfied and the payment to be received. The amount of revenue recognized for the year ended December 31, 2018 that was included in the contract liabilities balance at the beginning of the period was \$84,264 thousand.

(x) Employees', directors' and supervisors' remuneration

According to the Company's Article of Incorporation, if there is any net profit after closing of a fiscal year, it shall be allocated according to the following principles:

- (i) Employee remuneration: not less than 5% but no more than 10% and shall be determined and pursuant to Employee Bonus Procedure of the Company. In addition, employee's profit sharing remuneration shall be distributed in the form of shares or cash. Stock-type employee remuneration may be distributed to qualified employees of affiliates of the Company.
- (ii) Remuneration of Directors and Supervisors: no more than 3%.

However, if there are any accumulated losses of the Company, the Company shall pre-reserve the amount to offset the loss. The distribution of employees' profit sharing bonus and remuneration of Directors and Supervisors shall follow the special resolution by Board of Directors, and report it to the shareholders' meeting.

For the years ended December 31, 2018 and 2017, the Company estimated its employees' and directors'and supervisors' remuneration as follows:

	_	2018	2017
Employee remuneration	\$	255,	600 308,400
Directors' remuneration	_	74,	200 89,500
	\$_	329,	800 397,900

The amount of employee remuneration, and directors' and supervisors' remuneration were estimated based on profit before tax, net of the amount of the remuneration, and multiplied by the rule of Company's Article of Incorporation. The above remuneration were included in the operating costs and operating expenses of the years ended December 31, 2018 and 2017.

There was no difference between the actual distributed amounts as determined by the Board of Directors and those recognized in the Company's parent-company-only financial statements of the years ended December 31, 2018 and 2017.

The related information mentioned above can be found on websites such as the Market Observation Post System.

(y) Non-operating income and expenses

(i) Other income

The details of other incomes for the years ended December 31, 2018 and 2017 were as follows:

	2018	2017
Interest income:		
Interest income from bank deposits	\$ 57,334	21,221
Interest income from financial assets at amortized cost	697	-
Interest income from investments in debt instrument without active market	-	1,143
Other interest income	 1,033	3,757
Total interest income	 59,064	26,121
Dividend income	97,268	82,659
Rent income	 89,386	93,960
	\$ 245,718	202,740

(ii) Other gains and losses

The details of other gains and losses for the years ended December 31, 2018 and 2017 were as follows:

	2018		2017
Gain (losses) on disposals of property, plant and equipment	\$	2,210	(1,809)
Gains on disposals of investments		286,391	158,112
Foreign exchange gains (losses)		129,261	(174,496)
Losses on financial assets or liabilities at fair value through profit or loss		(32,394)	(34,768)
Others		30,366	22,868
	\$	415,834	(30,093)

(iii) Finance costs

The details of finance costs for the years ended December 31, 2018 and 2017 were as follows:

	2018	2017
Interest expenses	\$ 22,199	54,687
Other finance costs	 257	259
	\$ 22,456	54,946

(z) Financial instruments

(i) Credit risk

1) Exposure of credit risk

The maximum exposure to credit risk is mainly from carrying amount of financial assets.

2) Disclosures about concentrations of risk

As of December 31, 2018 and 2017, the Group's accounts receivable were concentrated on 4 and 3 customers, respectively, whose accounts represented 66% and 61% of the total accounts receivable, respectively. In order to reduce the credit risk on these accounts receivable, the Group continues to evaluate the financial status of these customers and request for collaterals when necessary.

3) Receivables and debt securities

For information on credit risk regarding notes and accounts receivable, please refers to note 6(c). Other financial assets measured at amortized cost include other receivables and the financial assets at amortized cost (which were classified as investments in debt instrument without active market as of December 31, 2017.) For related information of investment and impairment, please refers to notes 6(b) and 6(d).

All of these financial assets are considerated to have low risk, and thus, the impairment provision recognized during the periokd was limied 12 months expected losses.

(ii) Liquidity risk

The following were the contractual maturities of financial liabilities:

	•	Carrying amount	Contractual cash flows	Within 1 year	1-2 years	2-5 years	Over 5 years
As of December 31, 2018							
Non-derivative financial liabilities							
Secured bank loans	\$	1,572,600	1,661,678	21,294	124,638	997,014	518,732
Unsecured bank loans		4,230,000	4,350,337	48,837	1,494,684	2,560,556	246,260
Notes and accounts payable		1,093,074	1,093,074	1,093,074	-	-	-
Other payables		880,314	880,314	880,314	-	-	-
Guarantee deposits received	_	143,068	143,068	17,487	9,431	116,150	
	\$	7,919,056	8,128,471	2,061,006	1,628,753	3,673,720	764,992
As of December 31, 2017	_						
Non-derivative financial liabilities							
Secured bank loans	\$	679,536	689,099	308,797	304,758	75,544	-
Unsecured bank loans		5,578,000	5,725,263	119,553	1,921,648	3,684,062	-
Accounts payable		1,698,485	1,698,485	1,698,485	-	-	-
Other payables		1,254,346	1,254,346	1,254,346	-	-	-
Guarantee deposits received	_	143,685	143,685	4,867	19,387	9,431	110,000
	\$_	9,354,052	9,510,878	3,386,048	2,245,793	3,769,037	110,000

The Group did not expect that the cash flows included in the maturity analysis could occur significantly earlier or at significantly different amounts.

(iii) Currency risk

1) Exposure to currency risk

The Group's significant exposure to foreign currency risk were as follows:

	De	cember 31, 201	8	December 31, 2017			
	Foreign Exchange currency rate		NT\$	Foreign currency	Exchange rate	NT\$	
Financial assets							
Monetary items							
USD	\$ 191,938	30.72	5,896,330	140,645	29.76	4,185,590	
EUR	172	35.20	6,038	531	35.57	18,902	
JPY	3,014	0.2782	842	394,637	0.2642	104,265	
GBP	11	38.88	428	12	40.11	481	
HKD	62	3.92	241	62	3.81	237	
RMB	8,884	4.47	39,713	-	-		
			\$ 5,943,592		\$	4,309,475	
Non-monetary items							
USD	\$ 6,312	30.72	\$ 193,828	3,941	29.76	102,944	
RMB	97,324	4.47	433,761	40,972	4.57	185,537	
			§ 627,589		\$	288,481	
Financial liabilities							
Monetary items							
USD	\$ 17,126	30.72	526,123	36,711	29.76	1,092,511	
EUR	509	35.20	17,922	680	35.57	24,170	
JPY	328,936	0.2782	91,510	606,057	0.2642	160,121	
RMB	37	4.47	167	-	-		
			\$ 635,722		\$	1,276,802	

2) Sensitivity analysis

The Group's exposure to foreign currency risk arises from the translation of the foreign currency exchange gains and losses on cash and cash equivalents, notes and accounts receivable, other receivables, financial assets at fair value through profit or loss (which were classified as available-for-sale financial assets on December 31, 2017), notes and accounts payable and other payables that are denominated in foreign currency. A strengthening (weakening) 5 % of appreciation (depreciation) of the NTD against the USD, EUR, GBP, JPY, HKD, and the RMB etc. for the years ended December 31, 2018 and 2017 would have increased (decreased) the net profit after tax by \$220,129 thousand and \$125,856 thousand, respectively, and other comprehensive income would have increased (decreased) by \$0 thousand and \$16,773 thousand, respectively. The analysis assumes that all other variables remain constant.

3) Exchange gains or losses

Since the Group has many kinds of functional currency, the information on foreign exchange gains (losses) on monetary items is disclosed by total amount. For the years ended December 31, 2018 and 2017, foreign exchange gains (losses) (including realized and unrealized portions) amounted to \$129,261 thousand and \$(174,496) thousand, respectively.

(iv) Interest rate risk

Please refer to the attached note for the liquidity risk and the Group's interest rate exposure to its financial liabilities.

The following sensitivity analysis is based on the risk exposure to interest rates on the nonderivatives financial instruments on the reporting date. For variable rate instruments, the sensitivity analysis assumes the variable rate liabilities are outstanding for the whole year on the reporting date.

If the interest rate increases (decreases) by 0.5%, the Group's net profit after tax would have increased (decreased) by \$11,299 thousand and \$12,933 thousand for the years ended December 31, 2018 and 2017, respectively, all other variable factors that remain constant. This is mainly due to the Group's borrowing in floating rates.

(v) Fair value

1) Accounting classifications and fair values

The fair value of financial assets at fair value through profit or loss and financial assets at fair value through other comprehensive income (available-for-sale financial assets) are measured on a recurring basis. The carrying amount and fair value of the Group's financial assets and liabilities, including the information on fair value hierarchy were as follows; however, except as described in the following paragraphs, for financial instruments not measured at fair value whose carrying amount is reasonably close to the fair value, and for equity investments that has no quoted prices in the active markets and whose fair value cannot be reliably measured, disclosure of fair value information is not required.

		December 31, 2018					
				Fair	value		
	Car	rrying value	Level 1	Level 2	Level 3	Total	
Financial assets at fair value through profit or loss							
Stocks listed on domestic markets	\$	96,955	96,955	-	-	96,955	
Funds and investment		6,308	6,308	-	-	6,308	
Private fund		722,405		-	722,405	722,405	
Subtotal	\$	825,668	103,263	-	722,405	825,668	
Financial assets at fair value through other comprehensive	income						
Stocks listed on domestic and foreign markets	\$	1,791,646	1,791,646	-	-	1,791,646	
Non-public stocks		564,486		-	564,486	564,486	
Subtotal	\$	2,356,132	1,791,646	-	564,486	2,356,132	
Financial assets measured at amortized cost							
Cash and cash equivalents (Note)	\$	5,462,173	-	-	-	-	
Financial assets at amortized cost (Note)		29,900	-	-	-	-	
Notes and accounts receivable (Note)		1,422,365	-	-	-	-	
Other receivables (Note)		125,288	-	-	-	-	
Subtotal	\$	7,039,726	-	-	-	-	

(Continued)

	December 31, 2018					
				Fair va	lue	
	Car	rrying value	Level 1	Level 2	Level 3	Total
Financial liabilities measured at amortized cost						
Bank loans (Note)	\$	5,802,600	-	-	-	-
Notes and accounts payable (Note)		1,093,074	-	-	-	-
Other payables (Note)		880,314	-	-	-	-
Guarantee deposits received (Note)	_	143,068				
Subtotal	s	7,919,056	=	:	-	
			Dec	ember 31, 2017		
			T1.1	Fair va	Level 3	Total
Financial assets at fair value through profit or loss	Cai	rrying value	Level 1	Level 2	Level 3	I otai
Stocks listed on domestic markets	\$	136,530	136,530	-	-	136,530
Funds and investment		1,164,777	1,164,777	-	-	1,164,777
Subtotal	\$	1,301,307	1,301,307		_	1,301,307
Available-for-sale financial assets	=					
Stocks listed on domestic and foreign markets	\$	2,234,963	2,234,963	-	-	2,234,963
Non-public stocks		607,490	-	607,490	-	607,490
Private fund		612,978	-	612,978	-	612,978
Subtotal	\$	3,455,431	2,234,963	1,220,468	-	3,455,431
Loans and receivables	_					
Cash and cash equivalents (Note)	\$	7,849,123	-	-	-	-
Financial assets at cost (Note)		22,915	-	-	-	-
Investments in debt instrument without active market (Note)		62,200	-	-	-	-
Accounts receivable (Note)		1,551,390	-	-	-	-
Other receivables (Note)		356,282	-	-	-	-
Subtotal	\$	9,841,910		-	-	-
Financial liabilities measured at amortized cost	_					
Bank loan (Note)	\$	6,257,536	-	-	-	-
Accounts payable (Note)		1,698,485	-	-	-	-
Other payables (Note)		1,254,346	-	-	-	-
Guarantee deposits received (Note)		143,685		-		
Subtotal	\$	9,354,052		-	-	

Note: The information on fair value is not disclosed since the carrying amount is a reasonable approximation of fair value.

2) Valuation techniques of financial instrument not valued at fair value

The valuation techniques of the Group's financial instruments not valued at fair value by using the methods and assumptions are as follows:

 Financial assets measured at amortized cost (investments in debt instrument without active market and financial asset at amortized cost) and financial liabilities measured at amortized cost

If recent transaction prices or market maker quotes are available, the fair value is based on such information. If there is no quoted market price available, the fair value is determined by using valuation techniques and calculated as the present value of the estimated cash flows.

- 3) Valuation techniques of financial instruments valued at fair value
 - a) Non-derivative instruments

The fair value of financial assets and liabilities traded in an active market is based on the quoted market prices. The quotation, which is published by the main exchange center or that which was deemed to be a public bond by the Treasury Bureau of Central Bank, is included in the fair value of the listed securities instruments and the debt instruments in active markets with open bid.

A financial instrument is regarded as the quoted price in an active market if the quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency; and if those prices represent the actual and regularly occurring market transactions on an arm's length basis. Otherwise, the market is deemed to be inactive. Normally, a market is considered to be inactive when:

- The bid-ask spread is increasing; or
- The bid-ask spread varies significantly; or
- There has been a significant decline in trading volume.

When the financial instrument of the Group is traded in an active market, its fair value is illustrated by the category and nature as follows:

- Financial assets and liabilities with standard terms and conditions and traded in an active market, for example, investment in stock of listed companies: the fair value is based on the market quoted price.
- Close-end funds with standard terms and conditions, such as money market funds, and bond funds; investors can require the investment trust company to redeem the fund at any time. The fair value is based on the net value of the fund.

Except for the above-mentioned financial instruments traded in an active market, the fair value is based on the valuation techniques or the quotation from the counterparty. The fair value refers to the current fair value of the other financial instruments with similar conditions and characteristics, using a discounted cash flow analysis or other valuation techniques, such as calculations of using models (for example, applicable yield curve from Taipei Exchange, or average quoted price on interest rate of commercial paper from Reuters), based on the information acquired from the market at the balance sheet date.

When the financial instrument of the Group is not traded in an active market, its fair value is determined as follows:

- The fair value is determined based on the ratio of the quoted market price of the comparative listed company and its book value per share. Also, the fair value is discounted for its lack of liquidity in the market.
- The fair value is determined by using the asset based approach, whose assumptions are based on the market approach, income approach, cost approach or other valuation methods according to the nature of the assets or liabilities of the subject companies.

b) Derivative instruments

The fair value is determined by using the models that are acceptable to the market participants, for example, discounted cash flow analyses or option pricing models. Forward exchange contracts are measured using quoted forward exchange rates. The fair value of structured interest derivative financial instruments is determined by using the proper option pricing models, such as Black-Scholes model, or other valuation technique, such as Monte Carlo simulation.

4) Transfer between level 2 and level 1

For the years ended December 31, 2018 and 2017, there was no change on the fair value hierarchy of level 2 and level 1 financial asset.

5) Movement of level 3

	F	air value through profit or loss	Fair value through other comprehensive income
		Private fund	Unquoted equity instruments
January 1, 2018	\$	612,978	630,405
Total gains or losses:			
Recognized in profit and loss		(18,166)	-
Recognized in other comprehensive incom	ne	-	(51,781)
Purchased		127,593	-
Derecognized		-	(15,837)
Effect of changes in foreign exchange rates	_	-	1,699
December 31, 2018	\$_	722,405	564,486

The preceding gains and losses were recognized as other gains and losses and unrealized gains (losses) on valuation of financial assets at fair value through other comprehensive income. As of December 31, 2018, the related information of the assets which were still held by the Group were as follows:

	2018
Total gains or losses	
Profit or loss (recognized as other gains and losses)	\$ (18,166)
Other comprehensive income (recognized as unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income)	(51,781)

 Quantified information on significant unobservable inputs (Level 3) used in fair value measurement

The Group's financial instruments that use Level 3 inputs to measure fair value include "financial assets at fair value through profit or loss – private funds" and "financial assets at fair value through other comprehensive income – equity investments".

Most of the fair value measurements categorized within Level 3 use the single and significant unobservable input. Equity investments without an active market contains multiple significant unobservable inputs. The significant unobservable inputs of the equity investments are independent from each other, as a result, there is no relevance between them.

Quantified information of significant unobservable inputs was as follows:

Item	Valuation technique	Significant unobservable inputs	Inter-relationship between significant unobservable inputs and fair value measurement
Financial assets at fair value through other comprehensive income – equity investments without an active market	Comparable listed companies approach	 Price-book ratio (as of December 31, 2018 was 1.34~3.50) Market liquidity discount rate (as of December 31, 2018 was 80%) 	 The higher the price-book ratio, the higher the fair value The higher the market liquidity discount rate, the lower the fair value
	 Net asset value method 	• Net asset value	Not applicable
Financial assets at fair value through profit or loss – private fund	Net asset value method	Net asset value	Not applicable

7) Sensitivity analysis of reasonably possible alternative assumptions for fair value measurements in Level 3 of the fair value hierarchy

The fair value measurements of the Group's financial instruments are reasonable. However, changes in the use of valuation models or valuation variables may affect the estimations. For fair value measurements in Level 3, a fluctuation in the valuation variable by 5% would have the following effect:

			Effects of changes in fair value on profit or loss			Effects of changes in fair value on other comprehensive income		
December 31, 2018	Inputs	Increase or decrease	_ <u>F</u>	avorable	<u>Unfavorable</u>	Favorable	<u>Unfavorable</u>	
Financial assets at fair value through profit or loss								
Private fund	Net asset value	5%	\$	36,120	(36,120)	-	-	
Financial assets at fair value through other comprehensive income	e							
Equity investments without an active market	Price-book ratio	5%		-	-	20,665	(20,665)	
"	Market liquidity discount rate	5%		-	-	20,665	20,665	
"	Net asset value	5%		-	-	7,559	(7,559)	

The favorable and unfavorable effects represent the changes in fair value, and fair value is based on a variety of unobservable inputs calculated using a valuation technique. The analysis above only reflects the effects of changes in a single input, and it does not include the inter-relationships with another input.

There were no financial assets with fair value hierarchy level 3 for the year ended December 31, 2017.

- (aa) Management of financial risk
 - (i) The Group is exposed to the extent of the risks arising from financial instruments as below:
 - 1) Credit risk
 - 2) Liquidity risk
 - Market risk

Detailed information about exposure risk arising from the aforementioned risk was listed below. The Group's objective, policies and process for managing risks and methods used to measure the risk arising from financial instruments.

(ii) Risk management framework

The Board of Directors is responsible for overseeing the Group's risk management framework. The Group's internal auditor is responsible to identify and analyze the risks faced by the Group. The management of each division sets appropriate risk limits and controls, and monitor risks that follow the adherence to limits. The Group, through their training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group's Audit Committee oversees how management monitors compliance with the Group's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group's Audit Committee is assisted in its oversight role by the internal auditor. The internal auditor undertakes both regular and ad hoc reviews of risk management controls and the procedures, and the result of which are reported to the Audit Committee.

(iii) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to financial instruments fails to meet it contractual obligations that arises principally from the Group's accounts receivable, investments in securities and investments in bond.

1) Notes and accounts receivable

According to the credit policy, the Group analyze each new customer individually for their credit worthiness before granting the new customer standard payment terms and delivery terms. The Group's review includes external ratings of customers' financial information and bank references. Credit lines are established for each customer and reviewed periodically.

2) Investments

The credit risk exposure in the bank deposits, fixed income investments and equity instruments are measured and monitored by the Group's finance department. Since the Group's transactions resulted from the external parties with good credit standing and investment grade above financial institutions, publicly traded stock companies and unlisted companies with good reputation, there are no incompliance issues and therefore no significant credit risk.

3) Guarantees

According to the Group's policy, the Group can only provide guarantees which are listed under the regulation. The Group did not provide any guarantee not listed under the regulation as of December 31, 2018 and 2017.

(iv) Liquidity risk

Liquidity risk is a risk that the Group will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Group's approach to managing liquidity is to ensure, as far as possible, that it always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation.

The Group's financial department monitors cash flow requirements and optimizing its cash return on investments. The Group aims to maintain the level of its cash and cash equivalents at an amount in excess of expected cash flows on financial liabilities (other than trade payables) over the succeeding one year. The Group also monitors the level of expected cash outflows on account and other payables. This excludes the potential impact of extreme circumstances that cannot reasonably be predicted, such as natural disasters. As of December 31, 2018, the Group has unused bank credit lines for short-term borrowings, long-term bank borrowings, and the unused bank credit lines for short-term borrowings and long-term borrowings amounted to \$2,190,784 thousand, \$5,779,000 thousand and \$3,068,629 thousand, respectively.

(v) Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices, which will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return.

The Group is exposed to currency risk on sales, purchases and borrowings that are denominated in a currency other than the respective functional currencies of the Group's entities, primarily the New Taiwan Dollars (NTD), US Dollars (USD) and Chinese Yen (RMB).

The policy of response to currency risk:

- 1) The Group reserves the foreign currency position arising from sales appropriately to remit the foreign currency expenditures and then meets the natural hedge.
- 2) The Group uses foreign currency borrowings and forward exchange contracts to hedge the remaining nature of currency risk arising from the netting of foreign currency accounts receivable and accounts payable.
- 3) The Group manages the currency risk and then determines the timing of exchanging the foreign currency through collecting the foreign currency information. It also stays in contact with the foreign currency department to control the foreign currency trend and market information.

(ab) Capital management

The Board of Directors' policy is to maintain a strong capital base to maintain the confidence of investors, creditors and market, and to sustain future development of the business. For the goal of business sustainability, the Group monitors the expansion plan as well as the level of dividends to ordinary shareholders.

For the years ended December 31, 2018 and 2017, the Group's return on common equity was 12.27% and 17.43%, respectively. The Group's debt ratio at the reporting date were as follows:

	December 31,	December 31,
	2018	2017
Debt ratio	27.79 %	30.31 %

As of December 31, 2018, there were no changes in the Group's approach to capital management.

(ac) Financing activity

Reconciliation of liabilities arising from financing activities were as follows:

				Cash flows		Non-cash changes	
	J 	January 1, 2018	Proceeds from long- term debt	Repayments of long-term debt	Others	Amortization of arranger fee of syndicated loan	December 31, 2018
Long-term borrowings	\$	6,257,536	4,891,000	(5,346,025)	-	89	5,802,600
Guarantee deposit received	_	143,685			(617)		143,068
Total liabilities from financing activity	\$ _	6,401,221	4,891,000	(5,346,025)	(617)	89	5,945,668

(7) Related-party transactions

(a) Names and relationship with related parties

The followings are entities that have had transactions with related party during the periods covered in the consolidated financial statements:

Name of related party	Relationship with the Group
Jiangsu CM / Merit Agriculture Development Co., Ltd.	Associates
Winresp INC.	"
Chainwin i-Management (Shanghai) Co., Ltd. Huaian branch	Other related parties

(b) Significant transactions with related parties

(i) Loans to related parties were as follows:

Chainwin Cayman provided an unsecured loan, with an interest rate of 4.35% to its associates, Jiangsu CM / Merit Agriculture Development Co., Ltd. At December 31, 2017, the outstanding balance of the loan amounted to USD \$6,000 thousand (NTD \$178,560 thousand). Also, the amount of interest receivable arising from the aforementioned loan were USD \$124 thousand (NTD \$3,689 thousand) for the year ended December 31, 2017. Jiangsu CM/Merit Agriculture Development Co., Ltd. had repaid the loan on February 2018.

The amount of interest revenue arising from the aforementioned loan was USD \$30 thousand (NTD \$892 thousand) and USD \$124 thousand (NTD \$3,734 thousand) for the years ended December 31, 2018 and December 31, 2017, respectively.

(ii) Purchases

The amounts of significant purchases by the Group from related parties were as follows:

	2018		2017
Other related parties	\$	786	

The terms and pricing of purchase transactions with related parties were not significantly different from those offered by other vendors. There was no such transaction at December 31, 2017.

(iii) Receivables from related parties

Account	Relationship	December 31, 2018	December 31, 2017
Other receivables – related parties	Associates-Jiangsu CM / Merit Agriculture Development Co.,		
	Ltd.	\$ <u> </u>	182,249

(iv) Guarantee

As of December 31, 2018, Chainwin Cayman had provided a guarantee for loans amounting to USD \$7,350 thousand (NTD \$225,792 thousand) to its associate, Jiangsu CM/Merit Agriculture Development Co., Ltd. There was no such transaction at December 31, 2017.

(v) Property transactions

In 2018, the prepayments were amounting to USD \$704 thousand (NTD \$21,617 thousand) due to Chainwin Cayman purchase property, plant and equipment from its associates, Winresp INC. There was no such transaction for the year ended December 31, 2017.

(c) Transactions with key management personnel

Key management personnel compensation were comprised as below:

	2018	2017	
Short-term employee benefits	\$ 396,899	385,172	
Post-employment benefits	 802	766	
	\$ 397,701	385,938	

(8) Pledged assets:

The carrying amount of pledged assets were as follows:

Pledged assets	Pledged to secure	De	cember 31, 2018	December 31, 2017
Other non-current assets	Gas deposits	\$	4,700	4,700
Other non-current assets	Customs guarantee		20,050	20,955
Other non-current assets	Government subsidy deposits		4,300	-
Other non-current assets	Plant deposits		12,749	-
Property, plant and equipment	Long-term borrowings and line of credit		2,759,181	2,858,234
Investment property	Long-term borrowings and line of credit	_	351,631	1,441,902
Total		\$	3,152,611	4,325,791

(9) Commitments and contingencies:

(a) Contingencies: None.

(b) Commitment:

(i) The unrecognized commitment of acquisition of plant expansion and machinery equipment were as follows:

	December 31, 2018	2017
The unrecognized amount	\$4,726,547	6,114,772
	December 31, 2018	December 31, 2017
(ii) The unused letters of credit	\$	54,918

(10) Losses due to major disasters: None.

(11) Subsequent events:

On January 11, 2019, the Board of Directors of the Company's subsidiary, Win Semiconductors Cayman Islands Co., Ltd., resolved to subscribe the new shares contributed by its subsidiary, Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd, for the 22,000 thousand shares (upper limited), with par value of USD 2 per share, amounting to USD \$44,000 thousand (upper limited) in cash.

(12) Others:

The followings were the summary statement of employee benefits, depreciation and amortization expenses by function for the years ended December 31, 2018 and 2017:

		2018		2017					
	Classified as operating costs	Classified as operating expenses	Total	Classified as operating costs	Classified as operating expenses	Total			
Employee benefits									
Salaries	2,006,133	902,528	2,908,661	1,809,615	797,169	2,606,784			
Labor and health insurance	168,800	44,871	213,671	132,238	40,809	173,047			
Pension	76,207	23,711	99,918	60,578	19,543	80,121			
Director remuneration	-	74,510	74,510	-	89,810	89,810			
Others	62,014	15,454	77,468	52,062	13,433	65,495			
Depreciation	2,922,094	236,456	3,158,550	2,334,089	180,523	2,514,612			
Amortization	18,131	45,457	63,588	15,164	32,234	47,398			

(13) Other disclosures:

(a) Information on significant transactions:

The following is the information on significant transactions required by the "Regulations Governing the Preparation of Financial Reports by Securities Issuers" for the Group:

(i) Loans to other parties:

(In thousands of dollars)

													,			
					Highest balance				Purposes of	Transaction			Collateral			
1	I			I	of financing to			Range of	fund	amount for	Reasons				Individual	Maximum
1	1			l	other parties				financing for		for				funding loan	
Number	Name of	Name of	Account	l	during the period	Ending balance		during the	the borrower	between two	short-term	Allowance			limits	financing
(Note 1)	lender	borrower	name	Related party	(Note 2)	(Note 2)	loan facilities	period	(Note 3)	parties	financing	for bad debt	Item	Value	(Note 4)	(Note 4)
1	Chainwin	Jiangsu CM /	Other	Yes	184,320	-	-	4.35%	1	-	Working	-	None	-		Net equity
	Biotech and	Merit	receivables		(USD 6,000)						Capital				20%=	40%=
	Agrotech	Agriculture			(USD 6,000)										594,266	1,188,532
	(Cayman	Development													371,200	1,100,002
	Islands) Co.,	Co., Ltd.														
	Ltd.															

Note 1: Company numbering as follows:

Issuer - 0

Investee starts from 1

Note 2: The credit amount to lending.

Note 3: Purposes of lending were as follows:

- 1. Business relationship
- 2. Short-term financing

Note 4: The loan limit provided by Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd. to a particular single party and to other parties should not exceed 20% and 40%, respectively, of its equity based on the most recent audited or reviewed financial statement by a certified accountant.

(ii) Guarantees and endorsements for other parties:

(In thousands of dollars)

	(
		Counter-	party of						Ratio of accumulated				
				Limitation on					amounts of		Parent	Subsidiary	Endorsements/
1		endors	endorsement		Highest	Balance of		Property	guarantees and		company	endorsements/	guarantees to
1				guarantees and		guarantees		pledged for	endorsements to		endorsements/	guarantees	third parties
					guarantees and	and		guarantees	net worth of the	amount for		to third parties	
1			with the	for a specific	endorsements	endorsements		and	latest	guarantees and	third parties on	on behalf of	companies in
Number	Name of		Company	enterprise	during	as of	Actual usage	endorsements	financial	endorsements	behalf of	parent	Mainland
(Note 1)	guarantor	Name	(Note 2)	(Note 3)	the period	reporting date	amount	(Amount)	statements	(Note 3)	subsidiary	company	China
1	Chainwin	Jiangsu CM /	6	891,399	225,792	225,792	153,418	-	7.6 %	Net equity 50%	-	-	Y
1	Biotech and	Merit		(USD 29,017)	(USD 7,350)	(USD 7,350)	(USD 4,994)			=1,485,665			
1	Agrotech	Agriculture											
1	(Cayman	Development											
1	Islands) Co.,	Co., Ltd.					1						
	Ltd.												

Note 1: Company numbering as follows:

Issuer – 0

Investee starts from 1

Note 2: Relationship with the Company

- 1. Ordinary business relationship.
- 2. An entity, directly and indirectly, owned more than 50% voting shares of a guarantor.
- 3. A guarantor, directly and indirectly, owned more than 50% voting shares of an entity.
- 4. An entity, directly and indirectly, owned more than 90% voting shares of a guarantor.
- 5. Fulfillment of contractual obligations by providing mutual endorsements and guarantees for peer or joint builders in order to undertake a construction project.
- 6. An entity that is guaranteed and endorsed by all capital contributing shareholders in proportion to their shareholding percentages.
- 7. Peer engaged in the escrow of the sales contract on pre-sale house under the Consumer Protection Act.
- Note 3: The guarantees and endorsements limit provided by Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd. to a particular single party and to other parties should not exceed 30% and 50%, respectively, of its equity based on the most recent audited or reviewed financial statement by a certified accountant.

(iii) Securities held as of December 31, 2018 (excluding investment in subsidiaries, associates and joint ventures):

(In thousands of New Taiwan Dollars)

			1		E 1'		Jusanus Of 1		
Name of holder	Category and name of security	Relationship with company	Account title	Shares/Units (in thousands)	Ending Carrying value	Percentage of ownership (%)	Fair value	Highest Percentage of ownership (%)	Remark
The Company	Green Seal Holding Limited/Stock	None	Current financial assets at fair value through profit or loss	490	17,475	0.30	17,475	0.30	
WIN Venture Capital Corp.	Sercomm Corporation / Stock	"	"	1,238	79,480	0.50	79,480	0.50	
"	Allianz Global Investors Taiwan Money Market Fund	"	"	132	1,656	-	1,656	-	
"	Capital Money Market Fund	"	"	289	4,652	-	4,652	-	
					103,263		103,263		
The Company	MagiCapital Fund II L.P.	"	Non-current financial assets at fair value through profit or loss	-	183,842	5.81	183,842	5.81	
"	CDIB Capital Growth Partners L. P.	"	"	-	57,076	3.30	57,076	4.17	
"	Fuh Hwa Tung-ta Fund	"	"	15,725	299,271	-	299,271	-	
"	Fuh Hwa Oriental Fund	"	"	15,000	48,240	-	48,240	-	
"	Fuh Hwa Smart Energy Fund	"	"	12,000	93,600	-	93,600	-	
"	LeaSun Winion LP	"	"	-	30,390	14.25	30,390	14.25	
"	NFC Fund II LP	"	"	-	9,986	19.41	9,986	19.41	
					722,405		722,405		
"	Inventec Solar Energy Corporation / Stock	n.	Non-current financial assets at fair value through other comprehensive income	34,000	118,508	10.51	118,508	10.51	
"	MagiCap Venture Capital Co., Ltd/ Preferred Stock A	II	II.	1,000	93,780	4.58	93,780	4.58	
"	CDIB Capital Creative Industries Limited / Stock	"	"	5,000	106,761	3.33	106,761	3.33	
"	New Future Capital Co., Ltd./ Stock	"	n,	10,000	100,554	15.87	100,554	15.87	
"	Grand Fortune Venture Corp. / Stock	"	"	5,000	57,400	6.87	57,400	6.87	
"	ITEQ CORPORATION / Stock	"	"	24,116	1,205,785	7.96	1,205,785	8.04	
Win Semiconductors Cayman Islands Co., Ltd.	Broadcom Ltd./ Stock	Subsidiary's main client	"	75	585,861	0.02	585,861	0.02	
"	Anokiwave Inc. / Series B Preferred Stock	Subsidiary's client	"	1,264	63,829	7.93	63,829	10.05	
WIN Venture Capital Corp.	Nisho Image Technology Inc. / Stock	The Company's client	"	3,300	-	8.09	-	8.09	
"	MOAI Electronics Corporation/Stock	None	"	300	-	0.92	-	0.92	
"	Merit Biotech INC./Stock	//	"	1,320	-	2.93	-	2.93	(Note 1)
Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd.	Formosa Fortune Group Cayman Islands Co., Ltd.	n.	"	12	23,654	4.78	23,654	4.78	
The Company	MagiCap Venture Capital Co., Ltd. / Preferred Stock B	n.	Non-current financial assets at amortized cost	2,990	2,356,132	13.70	2,356,132 (Note 2)	15.75	

Note 1: The Board of Directors of Merit Biotech INC. had resolved to dissolve and liquidate the company. As of December 31, 2018, the company is still within the period of liquidation.

Note 2: The Group intends to hold its asset to maturity to collect contractual cash flows and these cash flows consist solely of payments of principal and interest on the principal amount outstanding. Therefore, the investment was classified as non-current financial asset at amortized cost.

(iv) Individual securities acquired or disposed of with accumulated amount exceeding the lower of NT\$300 million or 20% of the capital stock:

(In thousands of New Taiwan Dollars)

				Relationship	Beginning	g Balance	Purcl	nases		Sa	les		Ending	Balance
Name of	Category and	Account	Name of	with the	Shares (in		Shares (in		Shares (in			Gain (loss) on		
company	name of security	name	counter-party	company	thousands)	Amount	thousands)	Amount	thousands)	Price	Cost	disposal	thousands)	Amount
The Company	Win	Investments	-	Subsidiary	62,000	1,922,136	52,000	1,581,520	-	-	-	-	114,000	3,848,230
		accounted												(Note 1)
	Cayman Islands	for using												
	Co., Ltd./ Stock	equity												
		method												
"	Capital Money	Current	-	-	12,469	200,000	9,342	150,000	21,811	350,293	350,000	293	-	-
	Market Fund	financial												
		assets at fair												
		value												
		through												
		profit or loss												
"	Union Money	"	-	-	15,234	200,000	15,204	200,000	30,438	400,105	400,000	105	-	-
	Market Fund													
"	Allianz Global	//	-	-	24,086	300,000	-	-	24,086	300,715	300,000	715	-	-
	Investors Taiwan													
	Money Market													
	Fund													
Win	Chainwin	Investments		Investment	32,610	2,009,792	25,944	1,575,097	-	-	-	-	58,554	3,075,499
	Biotech and	accounted		through										(Note 1)
Cayman Islands		for using		subsidiary										
Co., Ltd.	(Cayman Islands)													
	Co., Ltd. / Stock													- 1
Chainwin	Jiangsu	Investments		Investment	-	214,272	-	349,970	-	-	-	-	-	433,761
Biotech and	CM/Merit	accounted		through										(Note 2)
Agrotech		for using		associates										
(Cayman		equity												
Islands) Co.,	Co., Ltd.	method												
Ltd.	I	1												
"	Jiangsu Chainwin	"		Investment	-	321,285	-	643,600	-	-	-	-	-	965,551
	Kang Yuan			through										(Note 1)
	Agriculture			subsidiary										
	Development													
	Co., Ltd.													
"	Jiangsu	"	-	"	-	62,496	-	360,141	-	-	-	-	-	414,902
	Merit/CM	l												(Note 1)
	Agriculture	l												
	Development	1												
	Co., Ltd.													

Note 1: The amount of ending balance was calculated using equity method. The amount of the transaction and the ending balance had been offset in the consolidated financial statements.

Note 2: The amount of ending balance was calculated using equity method.

(v) Acquisition of individual real estate with amount exceeding the lower of NT\$300 million or 20% of the capital stock:

(In Thousands of New Taiwan Dollars)

							If the counter-party is a related party,						
!		!	l					e the previous		formation	References		
		1				Relationship		Relationship			for		
Name of	Name of	Transaction	Transaction	Status of	Counter-party	with the		with the	Date of		determining	Purpose of	
company	property	date	amount	payment		Company	Owner	Company	transfer	Amount	price	acquisition	Others
Jiangsu	Factory	2018/10/25	617,213	As of	Jiangsu	-	N/A	N/A	N/A	N/A	Price	Operating	None
Chainwin	buildings	1		December 31,	Nantong						comparison	purpose	
Kang Yuan	_	1		2018, the	Sanjian						and price		
Agriculture		1		price paid	Construction						negotitation		
Development		1		\$168,588	Group Co.,						_		
Co., Ltd.				thousand.	Ltd.								
Jiangsu	Factory	2018/11/20	772,168	As of	Jiangsu	-	N/A	N/A	N/A	N/A	Price	Operating	None
Chainwin	buildings	1		December 31,	Nantong						comparison	purpose	
Agriculture	_	1		2018, the	Sanjian						and price		
and Animal		1		price paid	Construction						negotitation		
Technology		l	l	\$172,741	Group Co.,								
Co., Ltd.		1		thousand.	Ltd.								

(vi) Disposal of individual real estate with amount exceeding the lower of NT\$300 million or 20% of the capital stock: None.

(vii) Related-party transactions for purchases and sales with amounts exceeding the lower of NT\$100 million or 20% of the capital stock:

(In thousands of New Taiwan Dollars)

				Transacti	on details		Transactions with terms different from others		Notes/Accounts	receivable (payable)	
Name of		Nature of			Percentage of total					Percentage of total notes/accounts receivable	
company	Related party	relationship	Purchase/Sale	Amount	purchases/sales	Payment terms	Unit price	Payment terms	Ending balance	(payable)	Remark
The Company	Win Semiconductors Cayman Islands Co., Ltd.	1	Sales	(8,264,249)	49 %	1~2 Month	-	-	942,499	63%	(Note)
Win Semiconductors Cayman Islands Co., Ltd.		Parent Company	Purchase	8,264,249	100 %	1~2 Month	-	-	(938,048)	100%	(Note)

Note: The amounts of the transaction and the ending balance had been offset in the consolidated financial statements.

(viii) Receivables from related parties with amounts exceeding the lower of NT\$100 million or 20% of the capital stock:

(In thousands of New Taiwan Dollars)

Name of		Nature of	Ending	Turnover	Ove	rdue	Amounts received in	Allowance	
company	Counter-party	relationship	balance	rate	Amount	Action taken	subsequent period	for bad debts	Remark
The Company	Win Semiconductors	Subsidiary	942,499	7.42	-	-	942,499	-	(Note)
	Cayman Islands Co.,								`
	Ltd.								

Note: The amounts of the transaction and the ending balance had been offset in the consolidated financial statements.

- (ix) Trading in derivative instruments: None.
- (x) Business relationships and significant intercompany transactions:

(In thousands of New Taiwan Dollars)

			Nature of	Intercompany transactions							
No.			relationship				Percentage of the consolidated				
(Note 1)	Name of company	Name of counter-party	(Note 2)	Account name	Amount	Trading terms	net revenue or total assets				
0	The Company	Win Semiconductors	1	Operating revenue	8,264,249	Note 3	47.74%				
		Cayman Islands Co., Ltd.									
0	The Company	Win Semiconductors	1	Accounts	942,499	"	2.66%				
		Cayman Islands Co., Ltd.		receivable – related							
			_	parties							
1		The Company	2	Accounts	938,048	"	2.65%				
	Semiconductors			payable – related							
	Cayman Islands			parties							
١,	Co., Ltd.	T1 G	2		0.264.240		47.740/				
	Win Semiconductors	The Company	2	Operating costs	8,264,249	"	47.74%				
	Cayman Islands										
	Co., Ltd.										
1		WIN SEMI. USA, INC.	3	Operating expenses	79,594	"	0.46%				
1	Semiconductors	WIN BEIMI. OBA, IIVO.	,	operating expenses	77,574		0.1070				
1	Cayman Islands										
	Co., Ltd.										
2		Win Semiconductors	3	Operating revenue	79,594	"	0.46%				
	INC.	Cayman Islands Co., Ltd.		1 3	,						

Note 1: Company numbering as follows:

Parent company -0

Subsidiary starts from 1

Note 2: The numbering of the relationship between transaction parties as follows:

Parent company to subsidiary-1

Subsidiary to parent company - 2

Subsidiary to subsidiary - 3

Note 3: There is no significant difference from transaction terms with non-related parties.

(b) Information on investments:

The following is the information on investees for the year ended December 31, 2018 (excluding information on investees in Mainland China):

(In thousands of New Taiwan Dollars)

			Main	Original inve	estment amount	Balance a	s of December	31, 2018	Highest	Net income	Share of	
			businesses and	December 31,	December 31,	Shares	Percentage of	Carrying	Percentage of	(losses)	profits (losses)	
Name of investor	Name of investee	Location	products	2018	2017	(in thousands)		value	ownership	of investee	of investee	Remark
The Company	WIN SEMI. USA, INC.	California USA	Marketing	8,203	8,203	1,000	100.00 %	11,374	100.00 %	4,533	4,533	(Note 1)
	Win Semiconductors Cayman Islands Co., Ltd.	Cayman Islands	Selling of GaAs wafers	3,503,656	1,922,136	114,000	100.00 %	3,848,230	100.00 %	(200,462)	(200,462)	(Note 1)
"	Inventec Energy Corporation	Taiwan	Solar component module manufacturing	-	640,197	11,768	34.52 %	-	34.52 %	-	-	
"	WIN Venture Capital Corp.	Taiwan	Investment activities	250,000	250,000	25,000	100.00 %	172,815	100.00 %	12,978	12,978	(Note 1)
"	Phalanx Biotech Group, Inc.	Taiwan	Researching, manufacturing and selling of high density gene chips and testing service	304,150	180,400	24,650	39.89 %	347,216	39.89 %	(117,589)	(41,928)	(Note 1)
"	CSDC Private Limited	Singapore	Development and manufacturing of compound semiconductors technologies	-	-	0.25	25.00 %	-	25.00 %	(200,591)	-	
WIN Venture Capital Corp.	Phalanx Biotech Group, Inc.	Taiwan	Researching, manufacturing and selling of high density gene chips and testing service	39,600	39,600	3,600	5.82 %	50,709	6.82 %	(117,589)	(7,333)	(Note 1)
И	Winresp INC.	Taiwan	Developing and selling of water treatment system and wholesaling of medical appliances	40,000	-	2,500	18.52 %	36,227	19.38 %	1,436	(4,408)	
Win Semiconductors Cayman Islands Co., Ltd.	1	British Virgin Islands	Investment activities	62,920	62,920	38	49.30 %	62,820	49.30 %	(2,513)	(1,239)	
"	Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd	Cayman Islands	Investment activities	3,584,889	2,009,792	58,554	94.71 %	3,075,499	94.71 %	(257,508)	(237,736)	(Note 1)
Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd.		British Virgin Islands	Investment activities	-	38,573	-	-	-	100.00 %	156	156	(Note 2)
Phalanx Biotech Group, Inc.	Phalanx Biotech Limited	Hong Kong	Investment activities	8,784	8,784	-	100.00 %	(23,953)	100.00 %	(6,906)	(6,906)	(Note 1)
"	PhalanxBio, Inc.	USA	Selling of high density gene chip and test service	208,110	208,110	2,550	100.00 %	(1,293)	100.00 %	(3,139)	(3,139)	(Note 1)

Note 1: The amount of the transaction had been offset in the consolidated financial statements.

Note 2: Formosa Fortune Group Co., Ltd. has been liquidated on November 30, 2018.

(c) Information on investment in Mainland China:

(i) The names of investees in Mainland China, the main businesses and products, and other information:

(In thousands of dollars)

					Investmer	t flows								
				Accumulated outflow			Accumulated outflow					Carrying value	Accumulated	
			Method	of investment from Taiwan as of			of investment from Taiwan as of	Net income	Highest	Percentage	Investment	as of December	remittance of	
Name of investee	Main businesses and products	Total amount of paid-in capital	of investment	January 1, 2018	Outflow	Inflow	December 31, 2018	(losses) of the investee	percentage of ownership	of ownership	income (losses) (Note 3)	31, 2018 (Note 4)	earnings in current period	Remark
	Developing hog	959,571	(Note 1)	260,236	645,120	-	905,356	(87,944)	94.71 %	94.71 %	(87,944)		-	(note 8)
	farming technology and	(RMB 214 669)		(USD 8,471)	(USD 21.000)		(USD 29.471)	(USD (2.920))	54.71 70	54.71 70	(USD (2,920))	(USD 31,431)		(note o)
Development Co., Ltd.	trading			(0,)	(,,		(,)	(====,)			((-,))	(
. ,														
Jiangsu Chainwin	Farm feed developing	300,749	(Note 1)	32,125	245,760	-	277,885 (USD 9,046)	(12,108)	94.71 %	94.71 %	(12,108)	281,203	-	(note 8)
Agriculture and Animal	and trading	(USD 9,790)		(USD 1,046)	(USD 8,000)		(,,	(USD (411))			(USD (411))	(USD 9,154)		
Technology Co., Ltd.														
Jiangsu CM / Merit	Developing hog	1,203,723	(Note 1)	335,001	368,640	-	703,641	(187,990)	46.41 %	46.41 %	(92,115)	433,761	-	
-	farming technology and	(USD 39.184)		(USD 10,905)	(USD 12.000)		(USD 22,905)	(USD (6.166))	40.41 /6	40.41 70	(USD (3,021))	(USD 14,120)		
	trading			, , , , , ,	1		, , , , , , , , , , , , , , , , , , , ,	1				. , , ,		
, ·		466,944	(Note 1)	107.639	359,424		467,063	(5,672)			(4,788)	414.902		
	Developing hog		(Note 1)		,	-		(, , , ,	85.99 %	85.99 %			-	(note 8)
Agriculture Development	farming technology and	(USD 15,200)		(USD 3,504)	(USD 11,700)		(USD 15,204)	(USD (185))			(USD (156))	(USD 13,506)		
Co., Ltd.	trading													
Jiansu Merit/	Developing hog	147,456	(Note 1)	149,664	-	-	149,664	(561)	56.83 %	56.83 %	(337)	82,954	-	(note 7)
	farming technology and	(USD 4,800)		(USD 4,872)	1		(USD 4,872)	(USD (20))			(USD (12))	(USD 2,700)		(note 8)
Agriculture Development	trading							' ' '				' '		` '
Co., Ltd.														
,		72,313	(Note 1)	41.009			41.009	(3)			(3)	56,813		
	Developing hog	. ,	(Note 1)	, , , , ,		-	, , , , , , , , , , , , , , , , , , , ,		94.71 %	94.71 %			-	(note 8)
		(RMB 16,177)		(USD 1,335)	1		(USD 1,335)	(USD (0.34))	1		(USD (0.34))	(USD 1,849)		
Co., Ltd.	trading				[1				1		
Onearray Biotech	Selling of high density	8,784	(Note 2)	8,784	-	-	8,784	(6,906)	45.71 %	45.71 %	(6,906)		-	(note 8)
(Kunshan) Co., Ltd.	gene chip and test	(RMB 1,898)		(USD 300)	1		(USD 300)	(RMB (1,520))			(RMB (1,520))	(RMB (5,359))		
	service				1			1				1		

(ii) Limitation on investment in Mainland China:

(In thousands of dollars)

Investor Company Name	Accumulated Investment in Mainland China as of December 31, 2018	Investment Amounts Authorized by Investment Commission, MOEA	Upper Limit on Investment (Note 6)
The Company	2,554,402	2,805,017	15,362,631
and subsidiaries	(USD 83,133)	(USD 91,309)	

- Note 1: The Group invested in Mainland China companies through Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd , which is established in a third region.
- Note 2: The Group invested in Mainland China companies through Phalanx Biotech Limited (HK), which is established in a third region.
- Note 3: The amount of net income (losses) was recognized based on the audited financial statements of the investee companies.
- Note 4: Carrying value as of December 31, 2018 was with reference to the amount recognized by the investment through subsidiaries to subsidiaries established in a third region.
- Note 5: Investment income (loss) recognized was translated into New Taiwan Dollars at the average exchange rate for the each month from January 1, 2018 to December 31, 2018. The other amounts related to foreign currency were translated into New Taiwan Dollars at the exchange rate at the balance sheet date.
- Note 6: Amount of upper limit on investment was the higher between sixty percentage of total equity or total consolidated equity.
- Note 7: The meeting of shareholders of Jiansu Merit/ Cofcojoycome Agriculture Development Co., Ltd. had decided to dissolve the company on October 24, 2018 and has been liquidated on January 25, 2019, respectively.
- Note 8: The amount of the transaction and the ending balance had been offset in the consolidated financial statements.
- (iii) Significant transactions: None.

(14) Segment information:

- (a) The Group's reportable segment is the foundry segment. The foundry segment engages mainly in researching, developing, manufacturing, and selling of GaAs wafers, etc.
 - Other operating segments are mainly engaged in investment activities agriculture technology and gene chip and testing, which do not exceed the quantitative thresholds to be reported.
- (b) Operating segment profit or loss (includes reportable segment revenue and expenses), segment assets, segment liabilities, and their measurement and reconciliations for the years ended December 31, 2018 and 2017, the reportable amount is similar to that in the report used by the operating decision maker and the operating segment accounting policies are similar to the ones described in note 4 "significant accounting policies" were as follows:

2018		Foundry	Other	Reconciliation and elimination	Total
Revenue:		Foundry	Other	and eminiation	Total
Revenue from external customers	\$	16,932,784	377,932	-	17,310,716
Interest expenses	\$	22,456	-	-	22,456
Depreciation and amortization	\$	3,174,490	44,797	2,851	3,222,138
Shares of losses of associates and joint ventures accounted for using equity method	<u></u>	(17,701)	(100,136)	_	(117,837)
Reportable segment profit or loss	\$	3,496,670	(288,477)	(2,851)	3,205,342
Assets:					
Capital expenditures in noncurrent assets	\$	5,135,225	503,009		5,638,234
2017		Foundry	Other	Reconciliation and elimination	Total
Revenue:					
Revenue from external customers	\$	16,663,899	422,456		17,086,355
Interest expenses	\$	54,946	-		54,946
Depreciation and amortization	\$	2,529,494	29,639	2,877	2,562,010
Shares of losses of associates and joint ventures					
accounted for using equity method	\$	(129,304)	(37,483)		(166,787)
3	\$ \$	(129,304) 4,648,412	(37,483) (59,939)	(19,138)	(166,787) 4,569,335
accounted for using equity method	\$ \$			(19,138)	

The segment profit or loss, assets and liabilities of the operating segment above were consistent with the related accounts shown in the consolidated balance sheets and consolidated statements of comprehensive income of the Group.

(c) Segment information by products and services

The information from the product and the service segment coincides with the administrative segment, and its revenue from external customers was disclosed in Note 14(b).

(d) Geographic information

In presenting information on the basis of geography, segment revenue is based on the geographical location of customers, and segment assets are based on the geographical location of the assets.

Revenue from external customers for the years ended December 31, 2018 and 2017 were as follows:

Area	2018	2017
External Customers:		
America	\$ 4,169,406	3,141,216
Asia	10,369,004	10,564,507
Taiwan	2,131,793	2,838,695
Europe	640,513	540,249
Australia		1,688
Total	\$ <u>17,310,716</u>	17,086,355
Area	December 31, 2018	December 31, 2017
Non-current Assets:		
Taiwan	\$ 18,991,047	17,327,761
Asia	782,588	357,399
America	232	292
Total	\$19,773,867	17,685,452

Non-current assets include property, plant and equipment, investment property, intangible assets and prepayments for business facilities; not including financial instruments, goodwill and deferred tax assets.

(e) Major customers

For the years ended December 31, 2018 and 2017, sales to customers greater than 10% of net revenue were as follows:

		201	18	20)17	
		Net revenue amount	Percentage of net revenue (%)	Net revenue amount	Percentage of net revenue (%)	
Operating revenue of the Group-A company	\$	2,875,850	17	2,024,175	12	
Operating revenue of the Group-B company		2,788,677	16	3,634,444	21	
Operating revenue of the Group-C company		1,969,031	11	829,043	5	
Operating revenue of the Group-D company		1,315,655	8	1,998,397	12	
Operating revenue of the Group-E company	_	11		1,697,935	10	
	\$_	8,949,224	52	10,183,994	60	

Stock Code:3105

WIN SEMICONDUCTORS CORP. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

With Independent Auditors' Report For the Years Ended December 31, 2019 and 2018

Address: No.69, Keji 7th Rd., Hwaya Technology Park, Guishan Dist., Taoyuan City, Taiwan

Telephone: 886-3-397-5999

The independent auditors' report and the accompanying consolidated financial statements are the English translation of the Chinese version prepared and used in the Republic of China. If there is any conflict between, or any difference in the interpretation of the English and Chinese language independent auditors' report and consolidated financial statements, the Chinese version shall prevail.

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Representation Letter

The entities that are required to be included in the combined financial statements of WIN Semiconductors Corp. as of and for the year ended December 31, 2019, under the "Criteria Governing the Preparation of Affiliation Reports, Consolidated Business Reports, and Consolidated Financial Statements of Affiliated Enterprises" are the same as those included in the consolidated financial statements prepared in conformity with International Financial Reporting Standards No. 10 endorsed by the Financial Supervisory Commission, "Consolidated Financial Statements." In addition, the information required to be disclosed in the combined financial statements is included in the consolidated financial statements. Consequently, WIN Semiconductors Corp. and its subsidiaries do not prepare a separate set of combined financial statements.

Company name: WIN Semiconductors Corp.

Chairman: CHEN, CHIN-TSAI

Date: March 18, 2020

Independent Auditors' Report

To the Board of Directors of WIN Semiconductors Corp.:

Opinion

We have audited the consolidated financial statements of WIN Semiconductors Corp. and its subsidiaries ("the Group"), which comprise the consolidated balance sheets as of December 31, 2019 and 2018, the consolidated statements of comprehensive income, changes in equity and cash flows for the years then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of December 31, 2019 and 2018, and its consolidated financial performance and its consolidated cash flows for the years then ended in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and with the International Financial Reporting Standards ("IFRSs"), International Accounting Standards ("IASs"), interpretations as well as related guidance endorsed by the Financial Supervisory Commission of the Republic of China.

Basis for Opinion

In 2019, we conducted our audit in accordance with the Regulations Governing Auditing, the Ruling No. 1090360805 issued by the FSC and Certification of Financial Statements by Certified Public Accountants and the auditing standards generally accepted in the Republic of China. In 2018, we conducted our audits in accordance with the Regulations Governing Auditing and Certification of Financial Statements by Certified Public Accountants and the auditing standards generally accepted in the Republic of China. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the Certified Public Accountants Code of Professional Ethics in Republic of China ("the Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis of our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the year ended December 31, 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. In our judgment, the key audit matters we communicated in the auditors' report were as follows:

1. Evaluation of inventory

Please refer to Note 4(h) "Inventories" for accounting policies, Note 5(a) for accounting assumptions, judgments and estimation uncertainty of inventories, and Note 6(e) for the amount of loss on valuation of inventories of the consolidated financial statements.

Due to the high industry demand and rapid fluctuation of the price of precious metals, the Group stored a significant volume of the said material, which resulted in slow turnover of inventories. Therefore, the Group cannot obtain sufficient information on inventories that were sold or used on the reporting date. Since the technology changes rapidly, the inventory may be out of date or may not conform to market demand, resulting in a risk wherein the carrying amount of inventories may exceed its net realizable value. Consequently, the evaluation of inventory is identified as a key matter in our audit.

How the matter was addressed in our audit:

Our principal audit procedures included: Testing the accuracy of the estimations of inventories at the lower of cost and net realizable value. Referring to the recent selling price and considering the amount of written-off inventories in the subsequent events to evaluate the appropriateness of the amount of loss on valuation of inventories or obsolescence. Analyzing the historical accuracy of judgments, including inspecting the amount of loss on valuation of inventories or obsolescence recognized in prior year and with reference to actual disposal to assess rationality of the judgments of the current period. Moreover, comparing with the provision for inventories valuation and obsolescence made in the current year to evaluate the appropriateness of the assumptions.

2. Assessment of goodwill impairment

Please refer to Note 4(o) "Impairment of non-financial assets" for accounting policies, Note 5(b) for accounting assumptions, judgments and estimation uncertainty of assessment of goodwill impairment, and Note 6(m) for the intangible assets.

The Group periodically assess and perform their impairment test of goodwill based on the recoverable amount that is calculated by using the value-in-use method. The value-in-use method takes into account by predicting the future cash flow, and is decided by applying the discount rate. Since the assessment of goodwill impairment relies on the subjective judgment and estimation made by the management, it has been identified as a key audit matter.

How the matter was addressed in our audit:

Our principal audit procedures included: Assessing the rationality of method used in measuring the recoverable amount, which is provided by the management of the Group, including evaluating the appropriateness of assumption and estimation on major parameters, such as the forecast of cash flow and discount rate. Comparing with the historical accuracy of judgments, including inspecting the amount of forecast of cash flow in prior year and with reference to actual cash flow to evaluate the appropriateness of the assumptions. Performing the sensitivity analysis on main assumption.

Other Matter

WIN Semiconductors Corp. has prepared its parent-company-only financial statements as of and for the years ended December 31, 2019 and 2018, on which we have issued an unmodified opinion.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and with the IFRSs, IASs, IFRIC as well as SIC endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is also responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance (including members of the Audit Committee) are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' 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 the auditing standards generally accepted in the Republic of China will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the auditing standards generally accepted in the Republic of China, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- 1. Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- 2. Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- 3. Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- 4. Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- 5. Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- 6. Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements for the year ended December 31, 2019 and are therefore the key audit matters. We describe these matters in our auditors' report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partners on the audit resulting in this independent auditors' report are Chia-Chien Tang and Ya-Ling Chen.

KPMG

Taipei, Taiwan (The Republic of China) March 18, 2020

Notes to Readers

The accompanying consolidated financial statements are intended only to present the consolidated statement of financial position, financial performance and cash flows in accordance with the accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to audit such consolidated financial statements are those generally accepted and applied in the Republic of China.

The independent auditors' audit report and the accompanying consolidated financial statements are the English translation of the Chinese version prepared and used in the Republic of China. If there is any conflict between, or any difference in the interpretation of the English and Chinese language independent auditors' report and consolidated financial statements, the Chinese version shall prevail.

(English Translation of Consolidated Financial Statements Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

Consolidated Balance Sheets
December 31, 2019 and 2018
(Expressed in Thousands of New Taiwan Dollars)

31, 2019 December 31, 20	Amount % Amount %	\$ 1,826,214 4 1,093,074 3	3,657,585 9 2,469,630 7		423,161 1 265,679 1	5,975,700 14 3,828,383 11		5,788,125 14 5,802,600 16	300,587 1	222,158 224,235 1	6,310,870 15 6,026,835 17	12,286,570 29 9,855,218 28		4,240,564 10 4,238,144 12	22	32 1	7	71 25	- 224.678	71 25.				8 - 42,126,102
:	Liabilities and Equity Current liabilities:	Notes and accounts payable	Other payables	Current lease liabilities (Notes 3(a), 6(q) and 6(ad))	Other current liabilities (Notes 6(x) and 6(ad))	Total current liabilities	Non-current liabilities:	Long-term borrowings (Notes 6(p), 6(ad) and 8)	Non-current lease liabilities (Notes 3(a), 6(q) and 6(ad))	Other non-current liabilities (Notes 6(s) and 6(ad))	Total non-current liabilities	Total liabilities	Equity (Notes $6(b)$, $6(h)$, $6(s)$, $6(u)$ and $6(v)$):	Ordinary shares	Capital surplus	Retained earnings	Other equity interests	Total equity attributable to owners of parent	Non-controlling interests	Total equity				Total liabilities and equity
		2170	2200	2280	2399			2540	2580	2600				3110	3200	3300	3400		36XX					
8 3	<u>«</u>	16	,	4	11		-	32		7	t	_		7	44	,	4	7	,	,	7	4	89	100
31, 20	Amount	5,462,173	103,263	1,422,365	3,907,390	103,289	336,049	11,334,529		722,405		2,356,132	29,900	532,808	15,568,252	,	1,421,528	586,953	31,059	135,802	2,643,202	97,033	24,125,074	35,459,603
	, ,<	4		9	0																			100
70				_	1			32		_	:	I	,	_	43	-	ж	7		-	5	4	89	-11
December 31, 2019	Amount	5,926,473	506,849	2,406,673	4,389,156	21,923	399,076	13,650,150 32		565,804 1	1000	4,556,205		532,591 1		442,348 1	1,401,155 3	577,454 2	10,066 -	235,826 1	2,137,914 5	150,279	28,475,952 68	42,126,102
	Assets Current assets:	Cash and cash equivalents (Note 6(a))	Current financial assets at fair value through profit or loss (Note 6(b)) 506,849	Notes and accounts receivable, net (Notes 6(c) and 6(x))	Inventories (Note 6(e)) 4,389,156 1	Current biological assets (Note 6(f))	Other current assets (Notes 3(a), 6(d) and 6(n))		Non-current assets:	Non-current financial assets at fair value through profit or loss (Note 6(b)) 565,804 1	assets at fair value through other comprehensive		Non-current financial assets at amortized cost (Note 6(b))	Investments accounted for using equity method (Note 6(g)) 532,591 1		Right-of-use assets (Notes 3(a) and 6(k)) 442,348 1	Investment property (Notes 6(l) and 8) 1,401,155 3	Intangible assets (Notes 3(a), 6(i) and 6(m)) 577,454 2	Non-current biological assets (Note 6(f))	Deferred tax assets (Note 6(t)) 235,826 1	Prepayments for business facilities (Note 7) 2,137,914 5	Other non-current assets (Notes 3(a), 6(n), 7 and 8) - 150,279 -		

(English Translation of Consolidated Financial Statements Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

Consolidated Statements of Comprehensive Income

For the years ended December 31, 2019 and 2018

(Expressed in Thousands of New Taiwan Dollars, Except for Earnings Per Common Share)

		2019		2018	
		Amount	%	Amount	%
4000	Operating revenue (Notes 6(g) and 6(x))	\$ 21,377,724	100	17,310,716	100
5000	Operating costs (Notes 6(e), 6(f), 6(g), 6(j), 6(k), 6(m), 6(q), 6(r), 6(s), 6(v), 6(y), 7 and 12)	(13,216,850)	(62)	(11,895,545)	(69)
	Gross profit from operating	8,160,874	38	5,415,171	31
	Operating expenses (Notes 6(c), 6(j), 6(k), 6(l), 6(m), 6(q), 6(r), 6(s), 6(v), 6(y), 7 and 12):				
6100	Selling expenses	(339,221)	(2)	(238,957)	(1)
6200	Administrative expenses	(1,153,012)	(5)	(997,791)	(6)
6300	Research and development expenses	(1,107,918)	(5)	(973,921)	(5)
6450	Losses on expected credit impairment (reversal of expected credit impairment)	(2,171)		840	
	Total operating expenses	(2,602,322)	(12)	(2,209,829)	(12)
	Net operating income	5,558,552	26	3,205,342	19
	Non-operating income and expenses (Notes 4(c), 6(b), 6(g), 6(i), 6(j), 6(q), 6(r), 6(z) and 7):				
7010	Other income	274,337	1	245,718	1
7020	Other gains and losses	(187,524)	(1)	415,834	2
7050	Finance costs	(50,699)	-	(22,456)	-
7770	Shares of losses of associates and joint ventures accounted for using equity method	(201,238)	<u>(1</u>)	(109,815)	
	Total non-operating income and expenses	(165,124)	<u>(1</u>)	529,281	3
7900	Profit before tax	5,393,428	25	3,734,623	22
7950	Tax expense (Note 6(t))	(992,667)	<u>(4</u>)	(668,561)	<u>(4</u>)
	Profit	4,400,761	21	3,066,062	18
8300	Other comprehensive income:				
8310	Components of other comprehensive income that will not be reclassified to profit or loss (Notes $6(s)$, $6(t)$ and $6(u)$)				
8311	Gains (losses) on remeasurements of defined benefit plans	2,492	-	(34,051)	-
8316	Unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income	2,114,856	10	(352,044)	(2)
8349	Income tax related to components of other comprehensive income that will not be reclassified to profit or loss	(499)		7,730	
	Total components of other comprehensive income (loss) that will not be reclassified to profit or loss	2,116,849	10	(378,365)	<u>(2</u>)
8360	Components of other comprehensive income that will be reclassified to profit or loss (Notes $6(g)$ and $6(u)$)				
8361	Exchange differences on translation of foreign financial statements	(151,023)	(1)	46,105	-
8370	Shares of other comprehensive income of associates and joint ventures accounted for using equity method	4,263	-	(33,317)	-
8399	Income tax related to components of other comprehensive income that will be reclassified to profit or loss				
	Total components of other comprehensive income (loss) that will be reclassified to profit or loss	(146,760)	(1)	12,788	
8300	Other comprehensive income, net	1,970,089	9	(365,577)	(2)
8500	Total comprehensive income	\$ 6,370,850	30	2,700,485	16
0300	Profit (loss) attributable to:	9 0,570,630		2,700,403	
8610	Profit attributable to owners of parent	\$ 4,474,399	21	3,124,454	18
8620	Profit (losses) attributable to non-controlling interests	(73,638)	-	(58,392)	-
0020	Tront (1085es) attributable to non-controlling interests	\$ 4,400,761	21	3,066,062	18
	Comprehensive income (loss) attributable to:	<u> </u>		5,000,002	10
8710	Comprehensive income, attributable to owners of parent	\$ 6,447,998	30	2,811,518	16
8720	Comprehensive income (loss), attributable to non-controlling interests	(77,148)	-	(111,033)	-
0,20	income (1000), and to another to from controlling intercom	\$ 6,370,850	30	2,700,485	16
	Earnings per common share (expressed in New Taiwan dollars) (Note 6(w))	.,,	<u> </u>	,	===
9750	Basic earnings per share	\$ 10.59		7.39	
9850	Diluted earnings per share	\$ 10.53		7.35	
	6 1				

(English Translation of Consolidated Financial Statements Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

Consolidated Statements of Changes in Equity For the years ended December 31, 2019 and 2018 (Expressed in Thousands of New Taiwan Dollars)

Equity attributable to owners of parent

							O	Other equity interests	ts				
							Unrealized gains						
							(losses) on financial assets						
				Retained earnings		Exchange	measured at						
		•				differences on translation of	fair value through other	Unrealized gains	Unrealized gains Other unearned (Josses) on compensation for		Total equity		
	Ordinary	Capital	Legal recerve	Unappropriated	Total retained	foreign financial	comprehensive	available-for-sale	available-for-sale restricted shares	Total other	attributable to	Non-controlling interests	Total equity
Balance at January 1, 2018	\$ 4,226,664	968	,379,394	9,442,293	10,821,687	(100,208)	-	1,568,176	1	1,467,968	25,569,215	235,530	25,804,745
Effects of retrospective application and retrospective restatement				166,337	166,337		1,401,839	(1,568,176)	-	(166,337)			
Equity at beginning of period after adjustments	4,226,664	9,052,896	1,379,394	9,608,630	10,988,024	(100,208)	1,401,839	,		1,301,631	25,569,215	235,530	25,804,745
Appropriation and distribution of retained earnings:			000	000									
Legal reserve appropriated Cash dividands of ordinary shares			3 /6,420	(3/6,420)							(599 850 C)		(599 850 C)
Cash dividends of Ordinary shares			376 420	(3 335 085)							(2058,665)		(2,226,002)
D. C. A			0.70,420	0,000,000	2,236,002)						2 124 454	(000003)	2,00,000
Profit (losses) for the year ended December 31, 2018				3,124,434	3,124,434	000 37					3,124,434	(28,392)	3,000,002
Other comprehensive income for the year ended December 31, 2018				126,921	2 000 133		(352,044)			(286,013)	(312,930)	(111 033)	(305,577)
Total comprehensive income for the year ended December 31, 2018				3,098,133	5,098,133		(352,044)			(280,012)	2,811,318	(111,033)	2, /00,483
Disposal of investments accounted for using equity method		(21,163)	,			(1,421)				(1,421)	(22,584)		(22,584)
Change in ownership interest in subsidiaries			,	(40,573)	(40,573)						(40,573)		(40,573)
Adjustments to share of changes in equity associates	,	635							,		635		635
Issuance of restricted shares of employees	11,480	163,877	,		,	•		•	(175,357)	(175,357)			
Compensation cost arising from restricted shares of stock issued to employees	,	,	,	,	,	,	,	,	17,049	17,049	17,049		17,049
Changes in non-controlling interests		,										96,486	96,486
Stock option compensation cost of subsidiary		3,112									3,112	3,695	6.807
Disposal of investments in equity instruments designated at fair value through	_												
other comprehensive income				91,405	91,405		(91,405)			(91,405)			
Balance at December 31, 2018	4,238,144	9,199,357	1,755,814	9,422,510	11,178,324	(36,200)	958,390		(158,308)	763,882	25,379,707	224,678	25,604,385
Appropriation and distribution of retained earnings:													
Legal reserve appropriated	,	,	312,446	(312,446)									
Cash dividends of ordinary shares		,		(2,118,972)	(2,118,972)	,	,	'	,	,	(2,118,972)	,	(2,118,972)
			312,446	(2,431,418)	(2,118,972)					,	(2,118,972)		(2,118,972)
Profit (losses) for the year ended December 31, 2019			,	4,474,399	4,474,399						4,474,399	(73,638)	4,400,761
Other comprehensive income for the year ended December 31, 2019	,	,		1,993	1,993	(143,250)	2,114,856		,	1,971,606	1,973,599	(3,510)	1,970,089
Total comprehensive income for the year ended December 31, 2019				4,476,392	4,476,392	(143,250)	2,114,856			1,971,606	6,447,998	(77,148)	6,370,850
Disposal of investment accounted for using equity method		(1,510)									(1,510)		(1,510)
Changes in ownership interests in subsidiaries		(5,161)	,	(119,915)	(119,915)						(125,076)		(125,076)
Adjustments to share of changes in equity associates	,	875	,		,	,					875		875
Issuance of restricted shares of employees	2,620	47,744							(50,364)	Ŭ			
Compensation cost arising from restricted shares of stock issued to employees	,								71,643	71,643	71,643		71,643
Purchase and retirement of restricted shares of stock for employees	(200)	200											
Changes in non-controlling interests		,	,		,							31,205	31,205
Stock option compensation cost of subsidiary		2,803		,			,				2,803	3,329	6,132
Disposal of investments in equity instruments designated at fair value through	_												
other comprehensive income				(16,640)	(16,640)		16,640	•	'	16,640			,
Balance at December 31, 2019	\$ 4,240,564	9,244,308	2,068,260	11,330,929	13,399,189	(179,450)	3,089,886		(137,029)	2,773,407	29,657,468	182,064	29,839,532

(English Translation of Consolidated Financial Statements Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

Consolidated Statements of Cash Flows

For the years ended December 31, 2019 and 2018

(Expressed in Thousands of New Taiwan Dollars)

		2019	2018
Cash flows from (used in) operating activities: Profit before tax	\$	5,393,428	3,734,623
Adjustments:	*	-,,	-,,-,,
Adjustments to reconcile profit (loss):			
Depreciation expense Amortization expense		3,348,054 66,993	3,158,550 63,588
Losses on expected credit impairment (reversal of expected credit impairment)		2,171	(840)
Net (gains) losses on financial assets or liabilities at fair value through profit or loss		(246,768)	57,848
Interest expense		50,699	22,456
Interest income Dividend income		(67,365)	(59,064)
Share-based payments		(124,881) 77,775	(101,910) 23,856
Shares of losses of associates and joint ventures accounted for using equity method		199,856	117,837
Losses (gains) on disposal of property, plant and equipment		375,910	(2,210)
Losses (gains) on disposal of investments		28,115	(286,514)
Changes in biological assets at fair value		(52)	(1,139)
Unrealized foreign exchange gains Losses on lease modification		(4,386) 3,773	-
Prepayments for business facilities transferred to expenses		-	15
Total adjustments to reconcile profit (loss)		3,709,894	2,992,473
Changes in operating assets and liabilities:			
Changes in operating assets:		(240,810)	23,485
Decrease (increase) in financial assets at fair value through profit or loss Decrease (increase) in notes and accounts receivable		(986,334)	135,566
Increase in inventories		(486,866)	(150,018)
Decrease (increase) in biological assets		88,734	(12,397)
Decrease (increase) in other current assets		(73,847)	81,000
Total changes in operating assets		(1,699,123)	77,636
Changes in operating liabilities: Increase (decrease) in notes and accounts payable		733,140	(607,933)
Increase in other payables		464,709	143,905
Increase in other current liabilities		172,367	10,804
Increase in other non-current liabilities		2,987	1,827
Total changes in operating liabilities		(325,920)	(451,397)
Total changes in operating assets and liabilities Cash inflow generated from operations		8,777,402	(373,761) 6,353,335
Dividends received		3,091	4,642
Income taxes paid		(696,134)	(878,459)
Net cash flows from operating activities		8,084,359	5,479,518
Cash flows from (used in) investing activities:		(76 775)	(94.704)
Acquisition of financial assets at fair value through other comprehensive income Proceeds from disposal of financial assets at fair value through other comprehensive income		(76,775) 17,274	(84,704) 244,675
Proceeds from capital reduction of financial assets at fair value through other comprehensive income		6,667	-
Proceeds from disposal of non-current financial assets at amortized cost		29,900	32,300
Acquisition of financial assets at fair value through profit or loss		(467,525)	(477,593)
Proceeds from disposal of financial assets at fair value through profit or loss Proceeds from capital reduction of financial assets at fair value through profit or loss		768,367 35	1,486,555
Acquisition of investments accounted for using equity method		(248,320)	(389,970)
Proceeds from disposal of investments accounted for using equity method		-	21,925
Acquisition of property, plant and equipment		(3,516,505)	(3,188,631)
Proceeds from disposal of property, plant and equipment		77,653	4,334
Decrease in other receivables due from related parties Acquisition of intangible assets		(40,360)	181,200 (46,528)
Net cash inflows (outflows) from business combination		(138,256)	56,790
Acquisition of right-of-use assets		(41,018)	-
Decrease (increase) in other non-current assets		(58,298)	24,295
Increase in prepayments for business facilities		(1,789,359)	(2,403,075)
Interest received Dividends received		68,873 121,790	63,792 97,268
Net cash flows used in investing activities		(5,285,857)	(4,377,367)
Cash flows from (used in) financing activities:			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Proceeds from long-term debt		5,282,865	4,891,000
Repayments of long-term debt		(5,291,600)	(5,346,025)
Decrease in guarantee deposits received Repayments of lease liabilities		(17,457) (68,555)	(617)
Cash dividends paid		(2,118,972)	(2,958,665)
Interest paid		(30,292)	(22,945)
Changes in non-controlling interests		(38,532)	(68,770)
Net cash flows used in financing activities		(2,282,543)	(3,506,022)
Effect of exchange rate changes on cash and cash equivalents		(51,659)	(2.386.950)
Net increase (decrease) in cash and cash equivalents Cash and cash equivalents at beginning of period		464,300 5,462,173	(2,386,950) 7,849,123
Cash and cash equivalents at ord of period	\$	5,926,473	5,462,173
•	_		

(English Translation of Consolidated Financial Statements Originally Issued in Chinese) WIN Semiconductors Corp. and Subsidiaries

Notes to the Consolidated Financial Statements

For the years ended December 31, 2019 and 2018

(Expressed in Thousands of New Taiwan Dollars, Unless Otherwise Specified)

(1) Company history:

WIN Semiconductors Corp. (the "Company") was incorporated on October 16, 1999 as a company limited by shares and registered under the Ministry of Economic Affairs, R.O.C. The address of the Company's registered office is No. 69, Keji 7th Rd., Hwaya Technology Park, Guishan Dist., Taoyuan City, Taiwan.

The main operation the Company and its subsidiaries (together referred to as "the Group") are as follows:

- (a) Researching, developing, manufacturing, and selling of GaAs wafers.
- (b) Developing hog farming technology and trading.
- (c) Researching, manufacturing and selling of high-density gene chips, biochip optical readers and micro-electrophoresis analyzers.

(2) Approval date and procedures of the consolidated financial statements:

These consolidated financial statements were authorized for issue by the Board of Directors as of March 18, 2020.

(3) New standards, amendments and interpretations adopted:

(a) The impact of the International Financial Reporting Standards ("IFRSs") endorsed by the Financial Supervisory Commission, R.O.C. ("FSC") which have already been adopted.

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2019.

New, Revised or Amended Standards and Interpretations	Effective date per IASB
IFRS 16 "Leases"	January 1, 2019
IFRIC 23 "Uncertainty over Income Tax Treatments"	January 1, 2019
Amendments to IFRS 9 "Prepayment Features with Negative Compensation"	January 1, 2019
Amendments to IAS 19 "Plan Amendment, Curtailment or Settlement"	January 1, 2019
Amendments to IAS 28 "Long-term Interests in Associates and Joint Ventures"	January 1, 2019
Annual Improvements to IFRS Standards 2015–2017 Cycle	January 1, 2019

Except for the IFRS 16 "Leases", the Group believes that the adoption of the above IFRSs would not have any material impact on its consolidated financial statements. The extent and impact of signification changes are as follows:

IFRS 16 replaces the existing leases guidance, including IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement Contains a Lease", SIC 15 "Operating Leases – Incentives" and SIC 27 "Evaluating the Substance of Transactions Involving the Legal Form of a Lease".

The Group applied IFRS 16 using the modified retrospective approach. The details of the changes in accounting policies are disclosed below:

1) Definition of a lease

Previously, the Group determined at contract inception whether an arrangement is or contains a lease under IFRIC 4. Under IFRS 16, the Group assesses whether a contract is or contains a lease based on the definition of a lease, as explained in Note 4(m).

On transition to IFRS 16, the Group will choose to apply the definition of a lease to all its contracts whether a contract is, or contains, a lease.

2) As a lessee

As a lessee, the Group previously classified leases as operating or finance leases based on its assessment of whether the lease transferred significantly all of the risks and rewards incidental to ownership of the underlying asset to the Group. Under IFRS 16, the Group recognizes right-of-use assets and lease liabilities for most leases – i.e. these leases are on balance sheets.

Leases classified as operating leases under IAS 17. At transition, lease liabilities were measured at the present value of the remaining lease payments, discounted at the Group's incremental borrowing rate as at January 1, 2019. Right-of-use assets are measured at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments.

In addition, the Group used the following practical expedients when applying IFRS 16 to leases.

- Applied a single discount rate to a portfolio of leases with similar characteristics.
- Adjusted the right-of-use assets by the result of IAS 37 onerous contract provision immediately before the date of initial application, as an alternative to an impairment review.
- Applied the exemption not to recognize right-of-use assets and liabilities for leases with less than 12 months of lease term at the date of initial application.
- Excluded initial direct costs from measuring the right-of-use assets at the date of initial application.
- Used hindsight when determining the lease term if the contract contains options to extend or terminate the lease.

The Group decided to apply recognition exemptions to short-term leases of parts of land, transportation equipment, office and staff dormitories, etc.

3) As a lessor

The Group is not required to make any adjustments on transition to IFRS 16 for leases in which it acts as a lessor, except for a sub-lease. The Group accounted for its leases in accordance with IFRS 16 from the date of initial application.

4) Impacts on financial statements

On transition to IFRS 16, the Group recognized \$337,816 thousand and \$290,061 thousand of right-of-use assets and the lease liabilities, respectively, and prepaid rent expenses, guarantee deposits and intangible assets were decreased by \$13,939 thousand, \$1,902 thousand and \$31,914 thousand, respectively. When measuring lease liabilities, the Group discounted lease payments using its incremental borrowing rate at January 1, 2019. The weighted-average rate applied is 3.37%.

The explanation of differences between operating lease commitments immediately preceding the date of initial application, and lease liabilities recognized in the statement of financial position at the date of initial application disclosed as follows:

	Janu	ary 1, 2019
Operating lease commitment at December 31, 2018	\$	398,517
Recognition exemption for:		
short-term leases		(5,696)
leases of low-value assets		(780)
Discounted cash flow of interest expense		(100,078)
Others		(1,902)
Lease liabilities recognized at January 1, 2019	\$	290,061

(b) The impact of IFRS endorsed by FSC but not yet effective

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2020 in accordance with Ruling No. 1080323028 issued by the FSC on July 29, 2019:

	Effective date
New, Revised or Amended Standards and Interpretations	per IASB
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020
Amendments to IFRS 9, IAS39 and IFRS7 "Interest Rate Benchmark Reform"	January 1, 2020
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020

The Group assesses that the adoption of the abovementioned standards would not have any material impact on its consolidated financial statements.

(c) The impact of IFRS issued by IASB but not yet endorsed by the FSC

As of the date, the following IFRSs that have been issued by the International Accounting Standards Board (IASB), but have yet to be endorsed by the FSC:

New, Revised or Amended Standards and Interpretations	Effective date per IASB
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets Between an Investor and Its Associate or Joint Venture"	Effective date to be determined by IASB
IFRS 17 "Insurance Contracts"	January 1, 2021
Amendments to IAS 1 "Classification of Liabilities as Current or Non-current"	January 1, 2022

The Group is evaluating the impact of its initial adoption of the abovementioned standards or interpretations on its consolidated financial position and consolidated financial performance. The results thereof will be disclosed when the Group completes its evaluation.

(4) Summary of significant accounting policies:

The accompanying consolidated financial statements are the English translation of the Chinese version prepared and used in the Republic of China. If there is any conflict between, or any difference in the interpretation of the English and Chinese language consolidated financial statements, the Chinese version shall prevail.

The significant accounting policies presented in the consolidated financial statements are summarized below. Except for those specifically indicated, the following accounting policies were applied consistently throughout the periods presented in the consolidated financial statements.

(a) Statement of compliance

These consolidated financial statements have been prepared in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers (hereinafter referred to as "the Regulations") and the International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations, and SIC Interpretations endorsed and issued into effect by the Financial Supervisory Commission, R.O.C..

(b) Basis of preparation

(i) Basis of measurement

The consolidated financial statements have been prepared on a historical cost basis except for the following significant accounts:

- 1) Financial instruments measured at fair value through profit or loss;
- 2) Fair value through other comprehensive income are measured at fair value;
- 3) The net defined benefit liabilities are recognized as the present value of the defined benefit obligation, and the effect of the plan assets ceiling disclosure in Note 4(r) less plan assets.

(Continued)

(ii) Functional and presentation currency

The functional currency of each Group entity is determined based on the primary economic environment in which the entity operates. The consolidated financial statements are presented in New Taiwan dollars, which is the Company's functional currency. All financial information presented in New Taiwan dollars has been rounded to the nearest thousand.

(c) Basis of consolidation

(i) Principles of preparation of the consolidated financial statements

The consolidated financial statements comprise the Company and its subsidiaries. When the Company is exposed to the variable remuneration from investing on other individual or sharing the rights of the remuneration, also, is able to influence the rewards, the Company controls the individual.

The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. Transactions, balances and any other unrealized profit or loss between the Company and other subsidiaries are all eliminated while preparing the consolidated financial reports. Comprehensive income (loss) of subsidiaries belongs to owner of the Company and the non-controlling interest respectively. Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

Financial reports of subsidiaries had been adjusted properly and the accounting policies used in subsidiaries are same to the Group's accounting policies.

Changes in the Group's ownership interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions. Differences between the amount paid or received from fair value and the adjustment of the non-controlling interest are directly realized to the equity and belong to the owners of the Company.

(ii) Losing control of subsidiaries

When the Group loses control of its subsidiaries, the assets (including goodwill) and liabilities and any non-controlling interests of the former subsidiary at their carrying amounts at the date when control is lost will be derecognized and any investment retained in the former subsidiary at its fair value at the date when control is lost will be remeasured in the consolidated financial statement. The difference of disposal gain or loss is between the aggregate of (i) the fair value of the consideration received and any investment retained in the former subsidiary at its fair value at the date when control is lost and (ii) the assets (including goodwill) and liabilities and any non-controlling interests of the former subsidiary at their carrying amounts at the date when control is lost. The Group accounts for all amounts recognized in other comprehensive income in relation to that subsidiary on the same basis as would be required if the Group had directly disposed of the related assets or liabilities.

(iii) List of subsidiaries in the consolidated financial statements:

			Shareh	olding	
			December 31,	December 31,	
Name of investor	Name of subsidiary	Principal activity	2019	2018	Remark
The Company	WIN SEMI. USA, INC.	Marketing	100.00 %	100.00 %	
The Company	Win Semiconductors Cayman Islands Co., Ltd. (abbrev. Win Cayman)	Selling of GaAs wafers	100.00 %	100.00 %	
The Company	WIN Venture Capital Corp. (abbrev. WVC)	Investment activities	100.00 %	100.00 %	
The Company	Phalanx Biotech Group, Inc. (abbrev. PBL)	Researching, manufacturing and selling of high density gene chips and testing service	54.48 %	39.89 %	(Note 1) (Note 2)
The Company	WIN Earn Investment Corp.	Investment activities	100.00 %	-	
The Company	WIN Chance Investment Corp.	Investment activities	100.00 %	-	
WVC	Phalanx Biotech Group, Inc.	Researching, manufacturing and selling of high density gene chips and testing service	4.39 %	5.82 %	(Note 1) (Note 2)
Win Cayman	Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd. (abbrev. Chainwin Cayman)	Investment activities	96.30 %	94.71 %	(Note 2)
Chainwin Cayman	Jiangsu Chainwin Kang Yuan Agricultural Development Co., Ltd.	Developing hog farming technology and trading	100.00 %	100.00 %	
Chainwin Cayman	Jiangsu Merit/ CM Agriculture Development Co., Ltd.	Developing hog farming technology and trading	100.00 %	90.79 %	(Note 2)
Chainwin Cayman	Jiangsu Merit/ Cofcojoycome Agriculture Development Co., Ltd.	Developing hog farming technology and trading	-	60.00 %	(Note 3)
Chainwin Cayman	Jiangsu Chainwin Agriculture and Animal Technology Co., Ltd.	Farm feed development and trading	100.00 %	100.00 %	
Chainwin Cayman	Jiangsu Merit Runfu Agriculture Development Co., Ltd.	Developing hog farming technology and trading	100.00 %	100.00 %	
Chainwin Cayman	Jiangsu Win Yield Agriculture Development Co., Ltd.	Developing hog farming technology and trading	100.00 %	-	(Note 4)
PBL	PhalanxBio, Inc.	Selling of high density gene chips and testing service	100.00 %	100.00 %	
PBL	Phalanx Biotech Limited. (abbrev. PBL (HK))	Investment activities	100.00 %	100.00 %	
PBL (HK)	Onearray Biotech (Kunshan) Co., Ltd.	Selling of high density gene chips and testing service	100.00 %	100.00 %	

- Note 1: For the year end December 31, 2018, the Company and WVC do not hold more than half of the equity shares of PBL. However, the Company subscribed its new shares contribution and became the largest shareholder of PBL and obtained control over it on July 12, 2018; hence, PBL became a subsidiary of the Group since then. Please refer to Note 6(i) for the further information.
- Note 2: For the related information of the shareholding percentage change, please refer to Note 6(h) for the further information.
- Note 3: Jiansu Merit/ Cofcojoycome Agriculture Development Co., Ltd. had been liquidated on January 25, 2019. The losses on disposal of investments amounted to \$25,666 thousand, which was recognized as other gains and losses.
- Note 4: Jiangsu Win Yield Agriculture Development Co., Ltd. was incorporated on March 25, 2019. The capital injection had been made on June 12, 2019.
- Note 5: The aforementioned subsidiaries were recognized based on the audited financial statements by the certified public accountant.
- (iv) List of subsidiaries which are not included in the consolidated financial statements: None.

(d) Foreign currency

(i) Foreign currency transaction

Transactions in foreign currencies are translated into the respective functional currencies of the Group at the exchange rates at the dates of the transactions. At the end of each subsequent reporting period, monetary items denominated in foreign currencies are translated into the functional currencies using the exchange rate at that date. Non-monetary items denominated in foreign currencies that are measured at fair value are translated into the functional currencies using the exchange rate of the date the fair value was determined. Non-monetary items denominated in foreign currencies that are measured based on historical cost are translated using the exchange rate at the date of translation.

Exchange differences are generally recognized in profit or loss, except for the following differences which are recognized in other comprehensive income that arises from the retranslation:

- an investment in equity securities designated as at fair value through other comprehensive income;
- a financial liability designated as a hedge of the net investment in a foreign operation to the extent that the hedge is effective; or
- qualifying cash flow hedges to the extent that the hedge are effective.

(ii) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to the reporting currency of the consolidated financial statements at the exchange rates of the reporting date. The income and expenses of foreign operations are translated to the reporting currency of the consolidated financial statements at average rate. Foreign currency differences are recognized in other comprehensive income, and presented in the foreign currency translation reserve in equity.

However, if the foreign operation is a non-wholly owned subsidiary, then the relevant proportion of the translation difference is allocated to non-controlling interests. When a foreign operation is disposed of such that control, significant influence or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. When the Group disposes any part of its interest in a subsidiary that includes a foreign operation while retaining control, the relevant proportion of the cumulative amount is reattributed to non-controlling interest. When the Group disposes of only part of investment in an associate of joint venture that includes a foreign operation while retaining significant or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

When the settlement of a monetary item receivable from or payable to a foreign operation is neither planned nor likely predicted in the foreseeable future, the foreign currency gains and losses arising from such items are considered to a part of investment in the foreign operation and are recognized in other comprehensive income.

(e) Classification of current and non-current assets and liabilities

An entity shall classify an asset as current when:

- (i) It expects to realize the asset, or intends to sell or consume it in its normal operating cycle;
- (ii) It holds the asset primarily for the purpose of trading;
- (iii) It expects to realize the asset within twelve months after the reporting period; or
- (iv) If the asset is cash and cash equivalent (unless the asset is restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period).

An entity shall classify all other assets as non-current.

An entity shall classify a liability as current when:

- (i) It expects to settle the liability in its normal operating cycle;
- (ii) It holds the liability primarily for the purpose of trading;
- (iii) The liability is due to be settled within twelve months after the reporting period; or
- (iv) It does not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period. Terms of a liability that could, at the option of the counterparty, result in its settlement by the issuance of equity instruments that do not affect its classification.
- (f) Cash and cash equivalents

Cash comprises cash on hand and cash in bank. Cash equivalents consist of highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. Time deposits, which meet the above criteria and for the purpose of fulfilling short-term commitments instead of the purpose of investing activities or others, are categorized as cash equivalents.

(g) Financial instruments

Trade receivables are initially recognized when they are originated. All other financial assets and financial liabilities are initially recognized when the Group becomes a party to the contractual provisions of the instrument. A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at fair value through profit or loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

(i) Financial assets

All regular way purchases or sales of financial assets are recognized and derecognized on a trade date and settle date basis.

On initial recognition, a financial asset is classified as measured at: amortized cost; fair value through other comprehensive income (FVOCI); or FVTPL. Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model. Regular way purchase or sales of financial assets shall be recognized and derecognized, as applicable, using trade day.

1) Financial assets measured at amortized cost

A financial asset is measured at amortized cost if both of the following conditions are met and is not designated as at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A financial asset measured at amortized cost is initially recognized at fair value, plus any directly attributable transaction costs. These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses, and impairment losses are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.

2) Fair value through other comprehensive income (FVOCI)

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL:

- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Group may irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an instrument-by-instrument basis.

Debt investments at FVOCI are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in other comprehensive income. On derecognition, gains and losses accumulated in other comprehensive income are reclassified to profit or loss.

Equity investments at FVOCI are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in other comprehensive income and are never reclassified to profit or loss.

Dividend income from equity investments is recognized in profit or loss on the date on which the Group's right to receive payment is established, which is normally the exdividend date.

3) Fair value through profit or loss (FVTPL)

All financial assets not classified as amortized cost or FVOCI described above are measured at FVTPL, including derivative financial assets. On initial recognition, the Group may irrevocably designate a financial asset, which meets the requirements to be measured at amortized cost or at FVOCI, as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.

4) Assessment whether contractual cash flows are solely payments of principal and interest

For the purposes of this assessment, 'principal' is defined as the fair value of the financial assets on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs, as well as a profit margin.

In assessing whether the contractual cash flows are solely payments of principal and interest, the Group considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, the Group considers:

- contingent events that would change the amount or timing of cash flows;
- terms that may adjust the contractual coupon rate, including variable rate features;
- prepayment and extension features; and
- terms that limit the Group's claim to cash flows from specified assets (e.g. non-recourse features)

5) Impairment of financial assets

The Group recognizes loss allowances for expected credit losses on financial assets measured at amortized cost (including cash and cash equivalents, financial assets at amortized costs, notes and accounts receivable, other receivables, guarantee deposit paid and other financial assets) and contract assets.

The Group measures loss allowances at an amount equal to lifetime expected credit loss (ECL), except for the following which are measured as 12-month ECL:

- debt securities that are determined to have low credit risk at the reporting date; and
- other debt securities and bank balances for which credit risk (i.e. the risk of default occurring over the expected life of the financial instrument) has not increased significantly since initial recognition.

Loss allowance for accounts receivable and contract assets are always measured at an amount equal to lifetime ECL.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

The maximum period considered when estimating ECLs is the maximum contractual period over which the Group is exposed to credit risk.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECL, the Group considers reasonable and supportable information that is relevant and available (without undue cost or effort). This includes both quantitative and qualitative information and analysis based on the Group's historical experience and informed credit assessment, as well as forward-looking information.

The Group considers a debt security to have low credit risk when its credit risk rating is equivalent to the globally understood definition of 'investment grade which is considered to be BBB- or higher per Standard & Poor's, Baa3 or higher per Moody's or twA or higher per Taiwan Ratings'.

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

The Group considers a financial asset to be in default when the financial asset is more than 180 days past due.

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the Group in accordance with the contract and the cash flows that the Group expects to receive). ECLs are discounted at the effective interest rate of the financial asset.

At each reporting date, the Group assesses whether financial assets carried at amortized cost and debt securities at FVOCI are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Evidence that a financial asset is credit-impaired includes the following events:

- significant financial difficulty of the borrower or issuer;
- a breach of contract such as a default or being more than 90 days past due;
- the lender of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession that the lender would not otherwise consider;
- it is becoming probable that the borrower will enter bankruptcy or other financial reorganization; or
- the disappearance of an active market for that financial asset because of financial difficulties.

Loss allowances for financial assets measured at amortized cost are deducted from its carrying amount. For debt securities at FVOCI, the loss allowance is charged to profit or loss and is recognized in other comprehensive income instead of reducing the carrying amount of the asset.

The Group shall directly reduce the gross carrying amount of a financial asset when the Group has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof. This is generally the case when the Group determines that the debtor does not have assets or sources of income that could generate sufficient cash flows to repay the amounts subject to the write-off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Group's procedures for recovery of amounts due.

6) Derecognition of financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group enters into transactions whereby it transfers assets recognized in its statement of balance sheet, but retains either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognized.

(ii) Financial liabilities

1) Financial liabilities

Financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held-for-trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss.

Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognized in profit or loss. Any gain or loss on derecognition is also recognized in profit or loss.

2) Derecognition of financial liabilities

The Group derecognizes a financial liability when its contractual obligation has been discharged or cancelled or expires. The Group also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value.

On derecognition of a financial liability, the difference between the carrying amount of a financial liability extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in profit or loss.

3) Offsetting of financial assets and liabilities

Financial assets and financial liabilities are offset and the net amount presented in the statement of balance sheet when, and only when, the Group currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

(iii) Derivative financial instruments, including hedge accounting

The Group holds derivative financial instruments to hedge its foreign currency exposures. Derivatives are recognized initially at fair value and attributable transaction costs are recognized in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are recognized in profit or loss, and are included in other gains and losses. When a derivative is designated as a hedging instrument, its timing of recognition in profit or loss is determined based on the nature of the hedging relationship. When the fair value of a derivative instrument is positive, it is classified as a financial asset, and when the fair value is negative, it is classified as a financial liability.

(h) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is based on the weighted-average method, and includes expenditure incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on normal operating capacity.

Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

(i) Biological assets

Biological assets are measured at fair value less costs to sell on initial recognition, with any change therein recognized in profit or loss at the end of each reporting period. Costs to sell include all costs that would be necessary to sell the assets, excluding finance costs and tax expenses. Biological asset does not have a quoted market price in an active market and for which alternative fair value measurements are determined to be clearly unreliable. In such case, the asset is measured at cost less accumulated depreciation and impairment losses.

(i) Investment in associates

Associates are those entities in which the Group has significant influence, but not control, or joint control over their financial and operating policies.

Investments in associates are accounted for using the equity method and are recognized initially at cost. The cost of the investment includes transaction costs. The carrying amount of the investment in associates includes goodwill which arises from the acquisition less any accumulated impairment losses.

The consolidated financial statements include the Group's share of the profit or loss and other comprehensive income of those associates, after adjustments to align the accounting policies with those of the Group, from the date on which significant influence commences until the date on which significant influence ceases. The Group recognizes any changes of its proportionate share in the investee within capital surplus, when an associate's equity changes due to reasons other than profit and loss or comprehensive income, which did not result in changes in actual significant influence.

Unrealized gains and losses resulting from transactions between the Group and an associate are recognized only to the extent of unrelated Group's interests in the associate.

When the Group's share of losses of an associate equals or exceeds its interest in associates, it discontinues recognizing its share of further losses. After the recognized interest is reduced to zero, additional losses are provided for, and a liability is recognized, only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

The Group discontinues the use of the equity method and measures the retained interest at fair value from the date when its investment ceases to be an associate. The difference between the fair value of retained interest and proceeds from disposing, and the carrying amount of the investment at the date the equity method was discontinued is recognized in profit or loss. The Group accounts for all the amounts previously recognized in other comprehensive income in relation to that investment on the same basis as would have been required if the associates had directly disposed of the related assets or liabilities. If a gain or loss previously recognized in other comprehensive income would be reclassified to profit or loss (or retained earnings) on the disposal of the related assets or liabilities, the Group reclassifies the gain or loss from equity to profit or loss (as a reclassification adjustment) (or retained earnings) when the equity method is discontinued. If the Group's ownership interest in an associate is reduced while it continues to apply the equity method, the Group reclassifies the proportion of the gain or loss that had previously been recognized in other comprehensive income relating to that reduction in ownership interest to profit or loss.

If an investment in an associate becomes an investment in a joint venture or an investment in a joint venture becomes an investment in an associate, the Group continues to apply the equity method without remeasuring the retained interest.

When the Group subscribes to additional shares in an associate at a percentage different from its existing ownership percentage, the resulting carrying amount of the investment differs from the amount of the Group's proportionate interest in the net assets of the associate. The Group records such a difference as an adjustment to investments with the corresponding amount charged or credited to capital surplus. Moreover, a difference shall be debited to retained earnings when the balance of capital surplus resulting from investments accounted for using equity method is not sufficient to be written off. If the Group's ownership interest is reduced due to the additional subscription to the shares of associate, the proportionate amount of the gains or losses previously recognized in other comprehensive income in relation to that associate shall be reclassified to profit or loss on the same basis as would be required if the associate or jointly controlled entity had directly disposed of the related assets or liabilities.

(k) Investment property

Investment property is the property held either to earn rental income or for capital appreciation or for both, but not for sale in the ordinary course of business use in the production or supply of goods or services or for administrative purposes. Investment property is measured at cost on initial recognition, and subsequently at cost, less accumulated depreciation and accumulated impairment losses. Depreciation expense is calculated based on the depreciation method, useful life, and residual value which are the same as those adopted for property, plant and equipment.

Any gain or loss on disposal of an investment property (calculated as the difference between the net proceeds from disposal and the carrying amount) is recognized in profit or loss.

When the use of an investment property changes such that it is reclassified as property, plant and equipment, its carrying amount at the date of reclassification becomes its cost for subsequent accounting.

Rental income from investment property is recognized as other revenue on a straight-line basis over the term of the lease.

(l) Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses. The cost consists of any cost directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management, the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, and any borrowing cost are eligible for capitalization.

Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately, unless the useful life and the depreciation method of the significant part of an item of property, plant and equipment are the same as the useful life and depreciation method of another significant part of that same item.

The gain or loss arising from the derecognition of an item of property, plant and equipment is determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item, and it shall be recognized in profit or loss, under net other gains and losses.

(ii) Reclassification to investment property

The property is reclassified to investment property at its carrying amount when the use of the property changes from owner-occupied to investment property.

(iii) Subsequent cost

Subsequent expenditure is capitalized only when it is probable that the future economic benefits associated with the expenditure will flow to the Group. The carrying amount of those parts that are replaced is derecognized. Ongoing repairs and maintenance is expensed as incurred.

(iv) Depreciation

The depreciable amount of an asset is determined after deducting its residual amount and it shall be allocated on a straight-line basis over its useful life. The items of property, plant and equipment with the same useful life may be grouped in determining the depreciation charge. The remainder of the items may be depreciated separately. The depreciation charge for each period shall be recognized in profit or loss.

Land has an unlimited useful life and therefore is not depreciated.

The estimated useful lives for the current and comparative years of significant items of property, plant and equipment are as follows:

1) Buildings and structures: 2 to 40 years

2) Machinery and equipment: 1 to 10 years

3) Factory and equipment: 1 to 20 years

4) Other equipment: 1 to 13 years

Depreciation methods, useful lives, and residual values are reviewed at each reporting date. If expectations differ from the previous estimates, the change is accounted for as a change in an accounting estimate.

(m) Leases

Policy applicable from January 1, 2019

(i) Identifying a lease

At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Group assesses whether:

- 1) the contract involves the use of an identified asset this may be specified explicitly or implicitly, and should be physically distinct or represent substantially all of the capacity of a physically distinct asset. If the supplier has a substantive substitution right, then the asset is not identified; and
- 2) the Group has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use; and
- 3) the Group has the right to direct the use of the asset. :
 - The Group has the right to direct the use of the asset when it has the decision-making rights that are most relevant to changing how and for what purpose the asset is used.
 - In rare cases where the decision on how, and for what purpose, the asset is used is predetermined, the Group has the right to direct the use of an asset if either:
 - the Group has the right to operate the asset throughout the period of use, without the supplier having the right to change those operating instructions; or
 - the Group designed the asset in a way that predetermines how and for what purpose the asset will be used throughout the period of use.

At inception or on reassessment of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of their relative stand-alone prices. However, for the leases of land and buildings in which it is a lessee, the Group has elected not to separate non-lease components and account for the lease and non-lease components as a single lease component.

(ii) As a leasee

The Group recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be reliably determined, the Group's incremental borrowing rate. Generally, the Group uses its incremental borrowing rate as the discount rate.

Lease payments included in the measurement of the lease liability comprise the following:

- 1) fixed payments, including substantively fixed payments;
- 2) variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- 3) amounts expected to be payable under a residual value guarantee; and
- 4) payments for purchase or termination options that are reasonably certain to be exercised.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when:

- 1) there is a change in future lease payments arising from the change in an index or rate; or
- 2) there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee; or
- 3) there is a change in the assessment on whether it will have the option to exercise a purchase; or
- 4) there is a change in the assessment on lease term as to whether it will be extended or terminated; or
- 5) there is any lease modifications.

When the lease liability is remeasured, other than lease modifications, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or in profit and loss if the carrying amount of the right-of-use asset has been reduced to zero.

When the lease liability is remeasured to reflect the partial or full termination of the lease for lease modifications that decrease the scope of the lease, the Group accounts for the remeasurement of the lease liability by decreasing the carrying amount of the right-of-use asset to reflect the partial or full termination of the lease, and recognize in profit or loss any gain or loss relating to the partial or full termination of the lease.

The Group presents right-of-use assets that do not meet the definition of investment and lease liabilities as a separate line item respectively in the statement of financial position.

The Group has elected not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12 months or less and leases of low-value assets. The Group recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

(iii) As a lessor

When the Group acts as a lessor, it determines at lease commencement whether each lease is a finance lease or an operating lease. To classify each lease, the Group makes an overall assessment of whether the lease transfers to the lessee substantially all of the risks and rewards of ownership incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then the lease is an operating lease. As part of this assessment, the Group considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

When the Group is an intermediate lessor, it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. If a head lease is a short-term lease to which the Group applies the exemption described above, then it classifies the sub-lease as an operating lease.

If an arrangement contains lease and non-lease components, the Group applies IFRS15 to allocate the consideration in the contract.

The lessor recognizes a finance lease receivable at an amount equal to its net investment in the lease. Initial direct costs, such as lessors to negotiate and arrange a lease, are included in the measurement of the net investment. The lessor recognizes the interest income over the lease term based on a pattern reflecting a constant periodic rate of return on the lessor's net investment in the lease. The Group recognizes lease payments received under operating leases as income on a straight-line basis over the lease term as part of 'other income'.

Policy applicable before January 1, 2019

(i) Lessor

Lease income from operating lease is recognized in income on a straight-line basis over the lease term. Initial direct costs incurred in negotiating and arranging an operating lease is added to the carrying amount of the leased asset and recognized as an expense over the lease term on the same basis as the lease income. Incentives granted to the lessee to enter into the operating lease are spread over the lease term on a straight-line basis so that the lease income received is reduced accordingly.

Contingent rents are recognized as income in the period when the lease adjustments are confirmed.

(ii) Lessee

Leases in terms of which the Group assumes substantially all of the risks and rewards of ownership are classified as finance leases. On initial recognition, the lease asset is measured at an amount equal to the lower of its fair value with the present of the minimum lease payments. Subsequent to initial recognition, the asset is accounted for in accordance with the accounting policy applicable to the asset.

Other leases are operating leases and are not recognized in the Group's statement of financial position.

Payments made under operating lease, excluding insurance and maintenance expenses, are recognized in profit or loss on a straight-line basis over the term of the lease. Lease incentives received are recognized as an integral part of the total lease expense, over the term of the lease.

Contingent rent is recognized as expense in the periods in which they are incurred.

(n) Intangible assets

(i) Goodwill

1) Initial Recognition

Goodwill arising from the acquisition has been recognized as intangible assets.

2) Subsequent measurement

Goodwill is measured at cost less accumulated impairment losses. Impairment loss on equity investment in investees accounted for under the equity method is not allocated to any asset, including goodwill that forms part of the carrying amount of such investment.

(ii) Other intangible assets

Subsequent to the initial recognition, an intangible asset is measured at cost, less any accumulated amortization and any accumulated impairment losses. Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure is recognized in profit or loss as incurred.

Amortizable amount is the cost of an asset less its residual values. Intangible assets are amortized from the date that they are available for use by using straight-line method, the estimated useful lives for the current and comparative periods are as follows:

- 1) Technical know-how: 12 to 17 years
- 2) Computer software and information systems: 1 to 10 years
- 3) Others: 1 to 5 years

The residual value, amortization period, and amortization method for an intangible asset with a finite useful life shall be reviewed at least annually at each fiscal year-end, and adjusted if appropriate.

(o) Impairment of non-financial assets

The carrying amounts of the Group's non-financial assets, other than inventories, deferred tax assets, assets arising from employee benefits and biological assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. If it is not possible to determine the recoverable amount for the individual asset, then the Group will have to determine the recoverable amount for the asset's cash-generating unit.

The recoverable amount for the individual asset or the cash-generating unit is the higher of its fair value less costs to sell and its value in use. When evaluating value in use, the pre-tax discount rate is used to estimate the future cash flows. The discount rate should reflect the evaluation of specific risk resulting from the impact of the current market on the time value of money and on the asset or cash-generating unit.

If, and only if, the recoverable amount of an asset is less than its carrying amount, the carrying amount of the asset shall be reduced to its recoverable amount. The reduction is an impairment loss which shall be recognized immediately in profit or loss.

The Group should assess at each reporting date whether there is any indication that an impairment loss recognized in prior periods for an asset other than goodwill may no longer exist or may have decreased. An impairment loss recognized in prior periods shall be reversed if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. If this is the case, the carrying amount of the asset shall be increased to its recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount net of depreciation or amortization that would have been determined if no impairment loss had been recognized.

Notwithstanding whether indicators exist, recoverability of goodwill and intangible assets with indefinite useful lives or those not yet in use are required to be tested at least annually. Impairment loss is recognized if the recoverable amount is less than the carrying amount.

For the purpose of impairment testing, goodwill acquired in a business combination shall, from the acquisition date, be allocated to each of the acquirer's cash-generating units or groups of cash-generating units that is expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquire are assigned to those units or group of units. If the carrying amount of the cash-generating units exceeds the recoverable amount of the unit, the entity shall recognize the impairment loss and the impairment loss shall be allocated to reduce the carrying amount of each asset in the unit. Reversal of an impairment loss for goodwill is prohibited.

(p) Treasury stock

Repurchased shares are recognized under treasury shares (a contra-equity account) based on their repurchase price (including all directly accountable costs). Gains on disposal of treasury shares should be recognized under "capital reserve — treasury share transactions". Losses on disposal of treasury shares should be offset against existing capital reserves arising from similar types of treasury shares. If there are insufficient capital reserves to be offset against, then such losses should be accounted for under retained earnings. The carrying amount of treasury shares should be calculated using the weighted average of different types of repurchase.

During the cancellation of treasury shares, "capital reserve — share premiums" and "share capital" should be debited proportionately. Gains on cancellation of treasury shares should be recognized under existing capital reserves arising from similar types of treasury shares; losses on cancellation of treasury shares should be offset against existing capital reserves arising from similar types of treasury shares. If there are insufficient capital reserves to be offset against, then such losses should be accounted for under retained earnings.

(q) Revenue

(i) Revenue from contracts with customers

Revenue is measured based on the consideration to which the Group expects to be entitled in exchange for transferring goods or services to a customer. The Group recognizes revenue when it satisfies a performance obligation by transferring control of a good or a service to a customer. The accounting policies for the Group's main types of revenue are explained below:

1) Sale of goods

The Group recognizes revenue when control of the products has been transferred, when the products are delivered to the customer, the customer has full discretion over the channel and price to sell the products, and there is no unfulfilled obligation that could affect the customer's acceptance of the products. Delivery occurs when the products have been shipped to the specific location, the risks of obsolescence and loss have been transferred to the customer, and either the customer has accepted the products in accordance with the sales contract, the acceptance provisions have lapsed, or the Group has objective evidence that all criteria for acceptance have been satisfied.

The Group often offers volume discounts to its customers based on aggregate sales of electronic components over a 12 months period. Revenue from these sales is recognized based on the price specified in the contract, net of the estimated volume discounts. Accumulated experience is used to estimate the discounts, using the expected value method, and revenue is only recognized to the extent that it is highly probable that a significant reversal will not occur. A contract liability is recognized for expected volume discounts payable to customers in relation to sales made until the end of the reporting period. No element of financing is deemed present as the sales of electronic components are made with a credit term of 30 to 60 days, which is consistent with the market practice.

A receivable is recognized when the goods are delivered, as this is the point in time that the Group has a right to an amount of consideration that is unconditional.

2) Financing components

The Group does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. As a consequence, the Group does not adjust any of the transaction prices for the time value of money.

(r) Employee benefits

(i) Defined contribution plans

Obligations for contributions to defined contribution pension plans are recognized as expense as the related services is provided.

(ii) Defined benefit plans

The Group's net obligation in respect of the defined benefit pension plans is calculated separately for each plan 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. When the calculation results in a benefit to the Group, the recognized asset is limited to the total of the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any minimum funding requirements.

Remeasurements of the net defined benefit liability, 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 recognized immediately in other comprehensive income, and accumulated in retained earnings within equity. The Group determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability (asset). Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognized immediately in profit or loss. The Group recognizes gains and losses on the settlement of a defined benefit plan when the settlement occurs.

(iii) Short-term employee benefits

Short-term employee benefits are expensed as the related service is provided. A liability is recognized for the amount expected to be paid if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(s) Share-based payment

The grant-date fair value of equity-settled share-based payment agreements granted to employees is generally recognized as an expense, with a corresponding increase in equity, over the vesting period of the awards. The amount recognized as an expense is adjusted to reflect the number of awards which the related service and non-market performance conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of award that meet the related service and non-market performance conditions at the vesting date.

For share-based payment awards with non-vesting conditions, the grant-date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between the expected and the actual outcomes.

The grant date of the share-based payment is the date the Group inform their employees about the exercise price and shares.

(t) Income taxes

Income taxes comprise both current taxes and deferred taxes. Except for expenses related to business combinations, or are recognized directly in equity or other comprehensive income, all current and deferred taxes shall be recognized in profit or loss.

The Group has determined that interest and penalties related to income taxes, including uncertain tax treatment, do not meet the definition of income taxes, and therefore accounted for them under IAS37.

Current taxes comprise the expected tax payables or receivables on the taxable profits (losses) for the year and any adjustment to the tax payable or receivable in respect of previous years. The amount of current tax payables or receivables are the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any. It is measured using tax rates enacted or substantively enacted at the reporting date.

Deferred taxes arise due to temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases. Deferred taxes shall not be recognized for the below exceptions:

- (i) temporary differences on the initial recognition of assets and liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profits (losses) at the time of the transaction;
- (ii) temporary differences related to investments in subsidiaries, associates and joint arrangements to the extent that the Group is able to control the timing of the reversal of the temporary differences and it is probable that they will not reverse in the foreseeable future; and
- (iii) taxable temporary differences arising on the initial recognition of goodwill.

Deferred taxes are measured at tax rates that are expected to be applied to temporary differences when they reserve, using tax rates enacted or substantively enacted at the reporting date, and reflect uncertainty related to income taxes, if any.

Deferred tax assets and liabilities may be offset against each other if the following criteria are met:

- (i) The entity has the legal right to settle tax assets and liabilities on a net basis; and
- (ii) the taxing of deferred tax assets and liabilities fulfill one of the below scenarios:
 - 1) levied by the same taxing authority; or
 - 2) levied by different taxing authorities, but where each such authority intends to settle tax assets and liabilities (where such amounts are significant) on a net basis every year of the period of expected asset realization or debt liquidation, or where the timing of asset realization and debt liquidation is matched.

A deferred tax asset should be recognized for the carry-forward of unused tax losses, unused tax credits, and deductible temporary differences to the extent that it is probable that future taxable profit will be available against which the unused tax losses, unused tax credits, and deductible temporary differences can be utilized. Such unused tax losses, unused tax credits, and deductible temporary differences shall also be reevaluated every year on the financial reporting date, and adjusted based on the probability that future taxable profit will be available against which the unused tax losses, unused tax credits, and deductible temporary differences can be utilized; such reductions are reversed when the probability of future taxable profits improves.

(u) Business combinations

The Group treats the business combination as acquisition. Goodwill is measured at the consideration transferred less the amounts of the identifiable assets acquired and liabilities assumed (generally at fair value) at the acquisition date. If the amount of net assets acquired and liabilities assumed exceeds the acquisition price, the Group re-assesses whether it has correctly identified all of the assets acquired and liabilities assumed, and recognize a gain for the excess.

All transaction cost relating to a business combination are recognized immediately as expense when incurred, except for the issuance of debt or equity instruments.

The Group shall measure any non-controlling interests in the acquiree either at fair value or at the non-controlling interest's proportionate share of the acquiree's identifiable net assets, if the non-controlling interests are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation. Other non-controlling interests are evaluated by their fair value or by another basis permitted by the IFRSs endorsed by the FSC.

In a business combination achieved in batches, the previously held equity interest in the acquiree at its acquisition-date fair value is remeasured, and the resulting gain or loss, if any, is recognized in profit or loss. In prior reporting periods, the Group may have recognized changes in the value of its equity interest in the acquire in other comprehensive income. If so, the amount that was recognized in other comprehensive income shall be recognized on the same basis as would be required if the Group had directly disposed the previously held equity interest. If the disposal of the equity interest required a reclassification to profit or loss, such an amount shall be reclassified to profit or loss.

(v) Earnings per share

The Group discloses the Company's basic and diluted earnings per share attributable to ordinary equity holders of the Company. The calculation of basic earnings per share is based on the profit attributable to the ordinary shareholder of the Company divided by weighted-average number of ordinary shares outstanding. The calculation of diluted earnings per share is based on the profit attributable to ordinary shareholders of the Company, divided by weighted-average number of ordinary shares outstanding after adjustment for the effects of all dilutive potential ordinary shares, such as employee remuneration and new restricted shares of employee.

(w) Operating segment

An operating segment is a component of the Group that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the Group). Operating results of the operating segment are regularly reviewed by the Group's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance. Each operating segment consists of standalone financial information.

(5) Significant accounting assumptions and judgments, and major sources of estimation uncertainty:

The preparation of the consolidated financial statements in conformity with the IFRSs endorsed by the FSC requires management to make judgments, estimates, and assumptions that affect the application of the accounting policies and the reported amount of assets, liabilities, income, and expenses. Actual results may differ from these estimates.

The management continues to monitor the accounting estimates and assumptions. The management recognizes any changes in accounting estimates during the period and the impact of those changes in accounting estimates in the next period.

Information about critical judgments in applying accounting policies do not have significant effects on the amounts recognized in the consolidated financial statements.

Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are as follows:

(a) Valuation of inventories

As inventories are stated at the lower of cost or net realizable value, the Group estimates the net realizable value of inventories for obsolescence and unmarketable items at the end of the reporting period and then writes down the cost of inventories to net realizable value. The valuation of inventories is mainly determined based on assumptions as to future demand within a specific time horizon. Due to the rapid industrial transformation, there may be significant changes in the net realizable value of inventories. The further description of the valuation of inventories, please refer to Note 6(e).

(b) Assessment of goodwill impairment

The assessment of impairment of goodwill requires the Group to make subjective judgments to identify cash-generating units, allocate the goodwill to relevant cash-generating units, and estimate the recoverable amount of relevant cash-generating units. Refer to Note 6(m) for further description of the impairment of goodwill.

The accounting policy and disclosure of the Group include that measuring the financial assets and financial liabilities at fair value. The Group uses external information to make the evaluation result agreed to market status and to confirm the data resource is independent reliable and consistent with other resource. The Group regularly revises the inputs and any essential adjustments on the fair value to confirm that evaluation results is reasonable. The Group regularly evaluates investment property using the evaluation methods and parametric assumptions announced by FSC.

When measuring the fair value of an asset or a liability, the Group usually uses market observable data. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

- (c) Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- (d) Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- (e) Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The Group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in the following notes:

- (a) Note 6(1)-Investment property.
- (b) Note 6(aa)-Financial instruments.

(6) Explanation of significant accounts:

(a) Cash and cash equivalents

	December 31, 2019	December 31, 2018	
Cash on hand	\$ 50	702	
Cash in bank	5,681,36	5,191,898	
Time deposits	244,60	8 269,573	
	\$5,926,47	5,462,173	

Refer to Note 6(aa) for the fair value sensitivity analysis and currency risk of the financial assets and liabilities of the Group.

(b) Financial instruments

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

	De	cember 31, 2019	December 31, 2018	
Mandatorily measured at FVTPL:				
Stock listed on domestic markets	\$	206,359	96,955	
Private fund (Note)		565,804	722,405	
Money market funds		300,490	6,308	
Total	\$	1,072,653	825,668	
Current	\$	506,849	103,263	
Non-current		565,804	722,405	
	\$	1,072,653	825,668	

Note: As of December 31, 2019 and 2018, part of the private fund is during the lock-up period.

The Group holds derivative financial instruments to hedge certain foreign exchange the Group is exposed to, arising from its operating activities. For the year ended December 31, 2019, the gains on settlement, amounting to \$3,548 thousand, were recognized as other gains and losses. There was no transaction for the year ended December 31, 2018.

Refer to Note 6(z) for the gains or losses on disposal of investment and the amount of re-measurement at fair value recognized in profit or loss.

(ii) Non-current financial assets at fair value through other comprehensive income (FVOCI):

	December 31,		December 31,	
		2019	2018	
Stocks listed on domestic markets	\$	3,145,387	1,205,785	
Stocks listed on US markets		710,571	585,861	
Non-public stocks		700,247	564,486	
	\$	4,556,205	2,356,132	

The Group decided to hold these equity instruments, which are not held for trading, at fair value through other comprehensive income.

For the year ended December 31, 2019, due to liquidation of investee or return of capital contributions, the Group disposed the equity investments designated at fair value through other comprehensive income, with a fair value of \$23,941 thousand; upon derecognition, the loss of disposal, accumulated in other equity, amounting to \$16,640 thousand was transferred to retained earnings.

For the year ended December 31, 2018, the Group considered the change in the proportion of investment portfolio, therefore, disposed partial of its equity investment designated at fair value through other comprehensive income, with a fair value of \$244,675 thousand; upon derecognition, the gains of disposal, accumulated in other equity, amounting to \$91,405 thousand was transferred to retained earnings.

(iii) Non-current financial assets at amortized cost:

		Nominal	December 31,	December 31,
	Issue period	rate (%)	2019	2018
Preferred stock B	2012.11.23~2019.11.22	-	<u>\$</u>	29,900

The Group has assessed that its financial asset is held to collect contractual cash flows, which consist solely of payments of principal and interest on principal amount outstanding. The Group has designated these investments at the date of initial application as measured at amortized cost.

The non-current financial assets at amortized cost had been redeemed in the second quarter of 2019.

(iv) Sensitivity analysis in the equity price risk:

If the equity price changes, the impact to comprehensive income, using the sensitivity analysis based on the same variables except for the price index for both periods, will be as follows:

	2019		2018	
Prices of securities at the reporting date	After-tax other comprehensive income	After-tax profit (loss)	After-tax other comprehensive income	After-tax profit (loss)
Increasing 3%	\$ 136,686	6,191	70,684	2,909
Decreasing 3%	\$(136,686)	(6,191)	(70,684)	(2,909)

(v) As of December 31, 2019 and 2018, the financial assets were not pledged. For information on the Group's credit risk and market risk was disclosed in Note 6(aa).

(c) Notes and accounts receivable, net

	De	December 31, 2019		
Notes receivable	\$	684	459	
Accounts receivable		2,410,333	1,424,223	
Less: loss allowance		(4,344)	(2,317)	
	\$	2,406,673	1,422,365	

The Group applies the simplified approach to provide for its loss allowance used for expected credit losses, which permit the use of lifetime expected loss provision for all receivables. To measure the expected credit losses, notes and accounts receivable have been grouped based on shared credit risk characteristics and days past due, as well as incorporate forward looking information.

The loss allowance provision was determined as follows:

(i) The segment of foundry and agriculture technology:

	December 31, 2019			
	oss carrying amount	Weighted- average expected loss rate	Lifetime expected credit loss allowance	
Not past due	\$ 2,133,319	0%	-	
Past due 1~60 days	266,022	0%	-	
Past due 61~120 days	2,583	0%	-	
Past due 121~180 days	-	21.28%~36.46%	-	
Past due more than 181 days	 -	100%		
	\$ 2,401,924			
	 Ι	December 31, 2018		
	oss carrying amount	Weighted- average expected loss rate	Lifetime expected credit loss allowance	
Not past due	\$ 1,203,680	0%	-	
Past due 1~60 days	196,437	0%	-	
Past due 61~120 days	14,825	0%	-	
Past due 121~180 days	3,148	0%~32.14%	-	

(ii) The segment of gene chip testing service:

Past due more than 181 days

		December 31, 2019			
	Gr	oss carrying amount	Weighted- average expected loss rate	Lifetime expected credit loss allowance	
Not past due	\$	3,264	0.64%~11.55%	87	
Past due 1~60 days		1,719	5.30%~43.87%	291	
Past due 61~120 days		171	10.96%~49.43%	74	
Past due 121~180 days		151	38.09%~74.36%	104	
Past due more than 181 days		3,788	100%	3,788	
	\$	9,093		4,344	

1,418,090

100%

	December 31, 2018			
		s carrying mount	Weighted- average expected loss rate	Lifetime expected credit loss allowance
Not past due	\$	2,708	0%~7.29%	63
Past due 1~60 days		1,053	7.33%~18.55%	119
Past due 61~120 days		563	14.96%~24.59%	129
Past due 121~180 days		482	34.42%~67.65%	220
Past due more than 181 days		1,786	100%	1,786
	\$	6,592		2,317

The movements of loss allowance were as follows:

	 2019	2018
Beginning balance	\$ 2,317	2,086
Acquisition through business combinations	-	3,294
Impairment loss recognized (reversed), net	2,171	(840)
Amount written off	-	(2,173)
Effect of changes in foreign exchange rates	 (144)	(50)
Ending balance	\$ 4,344	2,317

As of December 31, 2019 and 2018, the notes and accounts receivable were not discounted and pledged.

(d) Other receivables (recognized as other current assets)

	Dec	ember 31, 2019	December 31, 2018
Other receivables	\$	50,517	125,288
Less: loss allowance		-	
	\$	50,517	125,288

As of December 31, 2019 and 2018, other receivables were not past due nor impaired.

For information on the Group's credit risk was disclosed in Note 6(aa).

(e) Inventories

	De	December 31, 2018	
Raw materials, supplies and spare parts	\$	2,881,948	2,641,108
Work in process		1,130,127	793,552
Finished goods		377,081	472,730
	\$	4,389,156	3,907,390

(Continued)

Except cost of goods sold and inventories recognized as expenses, the remaining gains or losses which were recognized as operating cost or deduction of operating cost were as follows:

	2019	2018
Losses on valuation of inventories and obsolescence	\$ 45,137	39,227
Unallocated overheads	\$ 	15,156
Scraps income	\$ (27,290)	(13,524)
Losses (gains) on physical inventory count	\$ 68	(619)

As of December 31, 2019 and 2018, the inventories were not pledged.

(f) Biological assets

(i) List of biological assets:

	Dece	ember 31, 2019	December 31, 2018	
Consumable biological assets	<u>\$</u>	21,923	103,289	
Bearer biological assets	\$	10,066	31,059	

(ii) Change in biological assets:

	 2019	2018
Beginning balance	\$ 134,348	134,188
Increase due to purchase	-	5,374
Input costs	318,953	405,013
Depreciation expenses	(9,556)	(10,903)
Decrease due to sales	(407,687)	(397,990)
Changes in fair value less costs to sell due to price changes	52	1,139
Effect of changes in foreign exchange rates	 (4,121)	(2,473)
Ending balance	\$ 31,989	134,348
Current	\$ 21,923	103,289
Non-current	 10,066	31,059
	\$ 31,989	134,348

For the years ended December 31, 2019 and 2018, the gains of \$52 thousand and \$1,139 thousand, respectively, was recognized as operating costs of the consolidated statement of comprehensive income as a result of the remeasurement of biological assets at the higher of its carrying amount or fair value less costs to sell.

(iii) The numbers of the Group's biological assets were as follows:

Unit: head

	December 31, 2019	December 31, 2018
Farrows, hogs and breeders	4,029	32,659

(iv) Fair value

The Group uses valuation method to measure its biological assets to determine the fair value of the hogs and the farrows (which are required to reach a certain weight), less, cost to sell at the end of the reporting period. If biological asset does not have a quoted market price in an active market, the asset is measured at cost less accumulated depreciation and impairment losses.

Costs of the biological assets include all of the costs within the growth cycle, such as the cost of new-born farrows, the feed and the raising farm. The cost of the productive biological assets shall be depreciated on a straight-line basis over the producible term. The amortized term is within 36 months. For the years ended December 31, 2019 and 2018, the depreciation expenses of biological assets (which will be converted into its breeding biological assets) were \$9,556 thousand and \$10,903 thousand, respectively.

- (v) The Group is exposed to the following risks relating to its hog farming:
 - 1) Regulations and environmental risks

The Group is subject to laws and regulations in various countries in which it operates. The Group has established environmental policies and procedures aimed at complying with the local environment and other laws. Management performs regular reviews to identify environmental risks and to ensure that systems in place are adequate to manage those risks.

2) Supply and demand risks

The Group is exposed to risks arising from fluctuations in the price and sales volume of hogs. When possible, the Group manages this risk by aligning its farming volume with market supply and demand. Management performs regular industry trend analyses to ensure that the Group's pricing structure is in line with the market.

3) Climate and other risks

The Group's hog farming is exposed to the risk of damage from climate change, diseases, and other natural forces. The Group has extensive processes in place aimed at monitoring and mitigating those risks, including regular pig health inspections and industry pest and disease surveys.

(vi) As of December 31, 2019 and 2018, the biological assets were not pledged.

(vii) Fair value valuation technique of biological assets used inputs that were categorized in level 3. Please refer to the table above regarding the movement of biological assets for a reconciliation beginning from the opening balance to the closing balance for level 3 fair value. In this period the fair value hierarchy of the biological assets were not transferred into or out of level 3. The valuation technique and significant unobservable inputs were as follows:

Items	Fair value valuation technique	Significant unobservable inputs	Relationship between significant unobservable inputs and fair value
Hogs in China	Price comparison: Estimated value of price comparison is compared with the biological assets of different type, quality and kinds, etc.	Evaluate the quality	Evaluate the changes in fair value, according to the quality of biological assets.

(g) Investments accounted for using equity method

The components of investments accounted for using the equity method at the reporting date were as follows:

	December 31,	December 31,
	2019	2018
Associates	\$ <u>532,591</u>	532,808

(i) Associates

In the third quarter of 2019 and the first quarter of 2018, the Group subscribed the new shares contributed by Jiangsu CM/ Chainwin Agriculture Development Co., Ltd. for \$248,320 thousand and \$349,970 thousand in cash, respectively. Due to the new shares subscription in the first quarter of 2018, the Group has significant influence on it. The equity shares held by the Group were not changed by the abovementioned transaction.

Affiliates which are material to the Group consisted of the followings:

		Main Operating	Proportion of	Shareholding
	Nature of	Location/ Registered	and Voti	ng Rights
	Relationship with	Country of the	December 31,	December 31,
Name of Affiliates	the Group	Company	2019	2018
Jiangsu CM/ Chainwin Agriculture	Developing hog	China	49 %	49 %
Development Co., Ltd. (Note)	farming technology			
	and trading			

Note: The shareholders' meeting of Jiangsu CM/ Merit Agriculture Development Co., Ltd. had approved and decided to rename to Jiangsu CM/ Chainwin Agriculture Development Co., Ltd. on June 20, 2019.

The following consolidated financial information of significant affiliates has been adjusted according to individually prepared IFRS financial statements of these affiliates.

The financial information of Jiangsu CM/ Chainwin Agriculture Development Co., Ltd.:

	Dec	ember 31, 2019	December 31, 2018
Current assets	\$	455,271	234,687
Non-current assets		1,274,357	1,374,095
Current liabilities		(475,061)	(407,284)
Non-current liabilities		(287,127)	(313,098)
Net assets	\$	967,440	888,400
Net assets attributable to non-controlling interests	\$	472,528	433,761
Operating revenue	<u> </u>	2019 85,259	2018 144,230
Loss from continuing operations	\$	(408,074)	
Other comprehensive income			
Total comprehensive income	\$_	(408,074)	(187,990)
		2019	2018
Shares of net assets of affiliates at the beginning	\$	433,761	185,537
Loss attributable to the Group		(199,956)	(92,115)
Exchange differences on translation of foreign financial statements attributable to the Group		4,263	(33,366)
Shares of net assets of affiliates at the end		238,068	60,056
Add: Issuance of shares in cash		248,320	349,970
Effect of changes in foreign exchange rates		(13,860)	23,735
Carrying amount of equity of affiliate attributable to the Group	\$	472,528	433,761

Summary of financial information for the individually insignificant investments in associates accounted for using the equity method were as follows. The aforementioned financial information was included in the consolidated financial statements of the Group:

	December 31, 2019		December 31, 2018	
Total equity of the individually insignificant investment	ts	(0.0/2	00.045	
in associates	\$	60,063	99,047	
		2019	2018	
Attributable to the Group:				
Profit (losses)	\$	100	(25,722)	
Other comprehensive income		-	49	
Total comprehensive income	\$ <u></u>	100	(25,673)	

(Continued)

(ii) Pledge to secure

As of December 31, 2019 and 2018, the investments accounted for using equity method were not pledged.

Acquisition of non-controlling interests

(i) Chainwin Cayman

On January 11, August 19, 2019 and January 19, August 24, 2018, the Group subscribed the new shares contributed by Chainwin Cayman for \$1,352,560 thousand, \$282,510 thousand, \$346,297 thousand and \$1,228,800 thousand in cash, respectively. Plus, on January 22 and December 27, 2018, Chainwin Cayman repurchased its own shares amounting to \$2,913 thousand and \$69,120 thousand, respectively, and cancelled afterwards; therefore, for the years ended December 31, 2019 and 2018, the Group increased its ownership from 94.71% to 96.30% and 88.14% to 94.71%, respectively.

Based on the aforementioned transactions, the effects of the changes in shareholdings were as follows:

		2019	2018
Carrying amount of interest on acquisition	\$	1,622,872	1,537,267
Consideration paid		(1,635,070)	(1,575,097)
Retained earnings changes in ownership interests in subsidiaries	\$	(12,198)	(37,830)

Jiangsu CM/ Merit Agriculture Development Co., Ltd.

On December 6, 2019, the Group subscribed the new shares contributed by Jiangsu CM/ Merit Agriculture Development Co., Ltd. for \$40,932 thousand in cash, increasing its ownership from 90.79% to 100%.

On September 26 and November 29, 2018, the Group subscribed the new shares contributed by Jiangsu CM/ Merit Agriculture Development Co., Ltd. for \$58,007 thousand and \$302,134 thousand, respectively, in cash, increasing its ownership from 60% to 90.79%, successively.

Based on the aforementioned transactions, the effects of the changes in shareholdings were as follows:

		2019	2018
Carrying amount of non-controlling interest on acquisition	\$	40,847	357,398
Consideration paid to non-controlling interests		(40,932)	(360,141)
Retained earnings changes in ownership interests in subsidiaries	s	(85)	(2,743)

(iii) Phalanx Biotech Group, Inc.

On December 24, 2019, the Group subscribed the new shares contributed by Phalanx Biotech Group, Inc., for \$300,000 thousand in cash, increasing its ownership from 45.71% to 58.87%. For the year ended December 31, 2018, there was no such transaction.

Based on the aforementioned transaction, the effects of the changes in shareholdings were as follows:

	 2019
Carrying amount of non-controlling interest on acquisition	\$ 187,207
Consideration paid to non-controlling interests	 (300,000)
Aforementioned changes in ownership interests in subsidiaries	\$ (112,793)

Aforementioned changes in ownership interests in subsidiaries included separately:

	2019	
Capital surplus	\$	(5,161)
Retained earnings	(1)	07,632)
	\$ <u>(1)</u>	12,793)

(i) Acquisition of subsidiary

On July 12, 2018, the Group became the largest shareholder of PBL and obtained control over it since then, increasing its ownership from 37.88% to 45.71%. PBL is mainly engaged in researching, manufacturing and selling of high density chips and providing testing service.

From the acquisition date to December 31, 2018, PBL contributed revenue and net loss of \$20,038 thousand and \$63,847 thousand, respectively. If the acquisition had occurred on January 1, 2018, the management estimates that consolidated revenue would have been \$41,567 thousand and the consolidated net loss would have been \$117,589 thousand. The abovementioned influences do not include adjustments on fair value.

The acquisition-date fair value of major class of consideration transferred were as follows:

(i) Consideration transferred

The Group subscribed the new shares contributed by PBL and became the largest shareholder of PBL, and obtained control over it since then. The Group expects PBL's future generated cash flow in accordance with the income approach that reflects the time value of investment and the risk of the discounted cash flow, and evaluates the implied consideration transferred of controlling over PBL.

The fair value measurement for the controlling interests has been categorized as a Level 3 fair value based on the inputs to the valuation technique used. The key assumptions are as follows:

1) The discount rate is based on the weighted-average cost of capital that computed by PBL and its comparable capital structures and corresponded by the market value;

2) Seven years of cash flows were included in the discounted cash flow model. Budgeted annual earnings after tax, before interest, depreciation and amortization was based on expectations of future outcomes taking into account past experience, adjusted for the anticipated revenue growth.

The shares of PBL held by the Group were measured and the fair value per share was \$15 at the acquisition date.

(ii) The following table summarizes the recognized amounts of assets acquired and liabilities assumed at the acquisition date:

	Cash and cash equivalents	\$	180,540
	Notes and accounts receivable		5,651
	Inventories		19,984
	Other current assets		24,281
	Property, plant and equipment (Note 6(j))		15,881
	Intangible assets (Note 6(m))		842
	Other non-current assets		11,240
	Notes and accounts payable		(2,522)
	Other payables		(13,156)
	Other current liabilities		(13,071)
	Total identifiable net assets acquired	\$	229,670
(iii)	Goodwill arising from the acquisition has been recognized as follows:		
	Consideration transferred	\$	123,750
	Fair value of pre-existing interest in Phalanx Biotech Group, Inc.		300,000
	Non-controlling interest in the acquire (proportionate share of the fair		
	value of the identifiable net assets)		124,683
	Less: Fair value of identifiable net assets		(229,670)
	6 4 W 67 67 X	_	

The Group re-measured the fair value of its existing equity interest in PBL before the business combination, and the resulting gain of \$273,432 thousand was recognized as "other gains and losses".

Goodwill mainly attributed to the profitability in the microarray services market and the know-how of PLB work force.

318,763

Goodwill (Note 6(m))

(j) Property, plant and equipment

The movements in property, plant and equipment were as follows:

		Land	Buildings and structures	Machinery and equipment	Factory and equipment	Other equipment	Construction in progress and inspection- awaited devices	Total
Cost:		Lanu	structures	equipment	equipment	equipment	devices	Total
Balance as of January 1, 2019	\$	2,546,534	2,188,435	20,141,998	4,241,965	507,810	1,745,695	31,372,437
Additions		-	69,039	1,384,618	562,275	103,295	1,565,392	3,684,619
Reclassification (Note 1)		-	185,684	2,203,617	1,010,076	11,589	(1,005,156)	2,405,810
Disposals		-	(858)	(2,729,332)	(95,206)	(83,085)	(2,865)	(2,911,346)
Effect of changes in foreign exchange rates	_		(2,130)	(219)	(1,787)	(1,841)	(78,708)	(84,685)
Balance as of December 31, 2019	\$_	2,546,534	2,440,170	21,000,682	5,717,323	537,768	2,224,358	34,466,835
Balance as of January 1, 2018	\$	2,546,534	2,153,117	17,777,113	4,255,435	363,944	649,245	27,745,388
Acquisitions through business combinations		-	-	22,975	-	2,708	-	25,683
Additions		-	16,608	1,549,416	84,393	163,532	1,243,747	3,057,696
Reclassification (Note 2)		-	19,798	1,197,356	33,775	58,127	(146,002)	1,163,054
Disposals		-	(124)	(404,674)	(130,889)	(79,577)	-	(615,264)
Effect of changes in foreign exchange rates	_	-	(964)	(188)	(749)	(924)	(1,295)	(4,120)
Balance as of December 31, 2018	\$_	2,546,534	2,188,435	20,141,998	4,241,965	507,810	1,745,695	31,372,437
Accumulated depreciation:	_							
Balance as of January 1, 2019	\$	-	689,336	12,637,886	2,240,384	236,579	-	15,804,185
Depreciation		-	111,228	2,573,484	428,655	146,380	-	3,259,747
Disposals		-	(858)	(2,286,215)	(91,973)	(82,575)	-	(2,461,621)
Effect of changes in foreign exchange rates	_		(427)	(88)	(635)	(636)		(1,786)
Balance as of December 31, 2019	\$_		799,279	12,925,067	2,576,431	299,748		16,600,525
Balance as of January 1, 2018	\$	-	584,763	10,563,890	1,956,057	172,410	-	13,277,120
Acquisitions through business combinations		-	-	8,267	-	1,535	-	9,802
Depreciation		-	104,835	2,465,639	416,731	140,068	-	3,127,273
Reclassification		-	-	-	(1,228)	1,228	-	-
Disposals		-	(124)	(399,874)	(130,885)	(78,418)	-	(609,301)
Effect of changes in foreign exchange rates	_	-	(138)	(36)	(291)	(244)		(709)
Balance as of December 31, 2018	\$_	-	689,336	12,637,886	2,240,384	236,579		15,804,185
Carrying value:								
Balance as of December 31, 2019	\$_	2,546,534	1,640,891	8,075,615	3,140,892	238,020	2,224,358	17,866,310
Balance as of January 1, 2018	\$	2,546,534	1,568,354	7,213,223	2,299,378	191,534	649,245	14,468,268
Balance as of December 31, 2018	\$	2,546,534	1,499,099	7,504,112	2,001,581	271,231	1,745,695	15,568,252

Note 1: Inventories, prepayments for business facilities, and capitalized right-of-use depreciation expenses were reclassified as property, plant and equipment.

Note 2: Inventories, prepayments for business facilities, and prepaid expenses were reclassified as property, plant and equipment.

(i) Pledge to secure

As of December 31, 2019 and 2018, property, plant and equipment were subject to a registered debenture to secured bank loans and line of credit, the collateral for these long-term borrowings was disclosed in Note 8.

(ii) Property, plant and equipment under construction

The Group rented some pieces of land and entered into different agreements for the construction of its new factories on the said lands. As of December 31, 2019, the Group has partially paid the price of \$934,806 thousand, recognized construction in progress.

(iii) For the years ended December 31, 2019 and 2018, capitalized interest expenses amounted to \$36,299 thousand and \$44,164 thousand, respectively. The annual interest rates at which these interest expenses were capitalized ranged from 1.08%~1.34% and 1.14%~1.34%, respectively.

(k) Right-of-use assets

The Group leases many assets including land, buildings and structures and other equipment. The movements in right-of-use assets were as follows:

		Land	Buildings and structures	Other equipment	Total
Cost:					
Balance at January 1, 2019	\$	-	-	-	-
Effects of retrospective application for IFRS 16		243,163	86,773	7,880	337,816
Additions		241,412	22,350	3,795	267,557
Disposals		(77,127)	(5,231)	(650)	(83,008)
Effect of change in foreign exchange rates	_	(15,699)			(15,699)
Balance at December 31, 2019	\$	391,749	103,892	11,025	506,666
Accumulated depreciation:					
Balance at January 1, 2019	\$	-	-	-	-
Depreciation (Note)		26,443	35,858	4,637	66,938
Disposals		(1,349)	(129)	(650)	(2,128)
Effect of change in foreign exchange rates		(492)			(492)
Balance at December 31, 2019	\$	24,602	35,729	3,987	64,318
Carrying amount:					
Balance at December 31, 2019	\$_	367,147	68,163	7,038	442,348

Note: Including capitalized depreciation expenses transferred to construction in process, which amounted to \$8,560 thousand.

(1) Investment property

The movements in investment property were as follows:

	Land	Buildings and structures	Total
Cost:			
Balance as of January 1, 2019	\$ 963,127	529,952	1,493,079
Additions	 -		
Balance as of December 31, 2019	\$ 963,127	529,952	1,493,079
Balance as of January 1, 2018	\$ 963,127	529,952	1,493,079
Additions	 _		
Balance as of December 31, 2018	\$ 963,127	529,952	1,493,079
Accumulated depreciation:	 		
Balance as of January 1, 2019	\$ -	71,551	71,551
Depreciation	 _	20,373	20,373
Balance as of December 31, 2019	\$ -	91,924	91,924
Balance as of January 1, 2018	\$ -	51,177	51,177
Depreciation	 _	20,374	20,374
Balance as of December 31, 2018	\$ _	71,551	71,551
Carrying amount:	 		
Balance as of December 31, 2019	\$ 963,127	438,028	1,401,155
Balance as of January 1, 2018	\$ 963,127	478,775	1,441,902
Balance as of December 31, 2018	\$ 963,127	458,401	1,421,528
Fair value:	 		
Balance as of December 31, 2019		\$	1,578,738
Balance as of December 31, 2018		\$	1,632,183

When measuring the fair value of its investment property, the Group considered the present value of net cash flows to be generated from leasing the property. The expected net cash flows were discounted using the yield to reflect its specified inherit risk on the net cash flows. The inputs to the valuation technique used for measuring fair value were categorized as a Level 2 fair value.

As of December 31, 2019 and 2018, the yield applied to the net annual rentals to determine fair value of property for which current prices in an active market were unavailable, was as follows:

Location	2019	2018
Hsinchu	0.31%	0.24%
Taoyuan	0.34%	1.41%

As of December 31, 2019 and 2018, investment property was subject to a registered debenture to secured bank loans and line of credit, the collateral for these long-term borrowings was disclosed in Note 8.

(m) Intangible assets

(i) The movements in intangible assets were as follows:

		Technical know-how	Computer software and information systems	Goodwill	Land use rights	Others	Total
Cost:							
Balance as of January 1, 2019	\$	46,005	150,871	446,068	32,591	25,628	701,163
Effects of retrospective application for IFRS 1	6	-	-	-	(32,591)	-	(32,591)
Additions		3,275	73,337	-	-	358	76,970
Reclassification (Note)		-	15,671	-	-	-	15,671
Disposals		-	(51,259)	-	-	(2,850)	(54,109)
Effect of changes in foreign exchange rates	_		(202)	(3,066)		(508)	(3,776)
Balance as of December 31, 2019	\$_	49,280	188,418	443,002		22,628	703,328
Balance as of January 1, 2018	\$	46,051	119,718	123,327	31,448	26,059	346,603
Acquisition through business combinations		-	1,802	318,763	-	-	320,565
Additions		-	53,679	-	1,765	3,853	59,297
Reclassification (Note)		(46)	9,957	-	-	-	9,911
Disposals		-	(34,465)	-	-	(4,944)	(39,409)
Effect of changes in foreign exchange rates			180	3,978	(622)	660	4,196
Balance as of December 31, 2018	\$_	46,005	150,871	446,068	32,591	25,628	701,163
Amortization:	-						
Balance as of January 1, 2019	\$	31,309	69,882	-	677	12,342	114,210
Effects of retrospective application for IFRS 1	6	-	-	-	(677)	-	(677)
Amortization		4,535	56,134	-	-	6,324	66,993
Disposals		-	(51,259)	-	-	(2,850)	(54,109)
Effect of changes in foreign exchange rates	_		(170)			(373)	(543)
Balance as of December 31, 2019	\$_	35,844	74,587			15,443	125,874
Balance as of January 1, 2018	\$	27,494	52,510	-	53	8,702	88,759
Acquisition through business combinations		-	960	-	-	-	960
Amortization		3,834	50,798	-	637	8,319	63,588
Reclassification		(19)	19	-	-	-	-
Disposals		-	(34,465)	-	-	(4,944)	(39,409)
Effect of changes in foreign exchange rates		-	60	-	(13)	265	312
Balance as of December 31, 2018	\$	31,309	69,882	-	677	12,342	114,210
Carrying value:	=						
Balance as of December 31, 2019	\$	13,436	113,831	443,002	-	7,185	577,454
Balance as of January 1, 2018	\$	18,557	67,208	123,327	31,395	17,357	257,844
Balance as of December 31, 2018	\$	14,696	80,989	446,068	31,914	13,286	586,953
	- :						

Note: Other current assets were reclassified as intangible assets.

(ii) Amortization expense recognized in profit or loss

For the years ended December 31, 2019 and 2018, the amortization expenses of intangible assets were as follows:

	 2019	2018
Operating costs	\$ 18,578	18,131
Operating expenses	 48,415	45,457
	\$ 66,993	63,588

(iii) Impairment testing for goodwill

1) Chainwin Cayman

The goodwill of \$132,278 thousand was derived from the acquisition of and the control over Chainwin Cayman by the Group on August 19, 2016. The goodwill was mainly attributed to the profitability of the hog farming in Mainland China. Chainwin Cayman is regarded as a cash-generating units (the "CGU") to generate cash inflows that are independent of those from others. Therefore, the amount on impairment loss of goodwill, which was evaluated by using the value in use, exceeds the carrying amount of the net asset.

Also, the Group estimated its operating revenue for certain periods based on the purchase price allocation valuation report issued by the specialist, who was entrusted by the Group. The preceding estimation was analyzed based on the financial forecasts from 2016 to 2021. The construction of certain factory farms of Chainwin Cayman had been delayed, resulting in failure to increase the scale on farm raising. Therefore, the actual operating revenue for the years of 2019 and 2018 decreased by 89% and 88%, respectively, which were lower than the original forecast.

On December 31, 2019 and 2018, the recoverable amount determined by the value-in-use for the cash-generating unit is higher than the carrying amount. Therefore, there is no impairment loss should be recognized.

The total amount of goodwill has been allocated to the agriculture technology for the Group's impairment testing purpose. The CGU are used as the minimum level for investment return of goodwill supervised by the management.

The Group's goodwill has been tested for impairment at the end of the annual reporting period and the recoverable amount is determined based on the value-in-use. The key assumption used in the estimation of the value-in-use of the CGU were as follows:

a) The future cash flow was based on expectations of future operations, taking into account past experience, adjusted for the anticipated revenue growth. Revenue growth was projected taking into account the average growth levels experienced over the past year, and the estimated sales volume and price growth for the next five years. The assumptions were in line with the information obtained from external local market who publish a statistical analysis on market trends.

b) The assumption on before-tax discount rate is based on the weighted average cost of capital. As of December 31, 2019 and 2018, the applied before-tax discount rate of the recoverable amount of the units were 11.49% and 8.95%, respectively.

2) PLB

The goodwill of \$318,763 thousand was derived from the Group became the largest shareholder of and obtained control over PBL on July 12, 2018. The goodwill was mainly attributed to the profitability in microarray services market and the know-how of PLB work force. PBL is regarded as a CGU to generate cash inflows that are independent of those from others. Therefore, the amount on impairment loss of goodwill, which was evaluated by using the value in use, exceeds the carrying amount of the net asset.

Also, the Group estimated its operating revenue for certain periods based on the purchase price allocation valuation report issued by the specialist, who was entrusted by the Group. The preceding estimation was analyzed based on the financial forecasts from 2018 to 2025. The technology transfer cases of PLB did not be finished on time, and therefore, the actual operating revenue for the year of 2019 reached by 76%, which was lower than the original forecast.

On December 31, 2019 and 2018, the recoverable amount determined by the value-in-use for the cash-generating unit is higher than the carrying amount. Therefore, there is no impairment loss should be recognized.

The total amount of goodwill has been allocated to the gene chip testing service for the Group's impairment testing purpose. The CGU are used as the minimum level for investment return of goodwill supervised by the management.

The Group's goodwill has been tested for impairment at the end of the annual reporting period and the recoverable amount is determined based on the value-in-use. The key assumption used in the estimation of the value-in-use of the CGU were as follows:

- a) The future cash flow was based on expectations of future operations, taking into account past experience, adjusted for the anticipated revenue growth. Revenue growth was projected taking into account the average growth levels experienced over the past year, and the estimated sales volume and price growth for the next 19 years.
- b) The assumption on before-tax discount rate is based on the weighted average cost of capital. As of December 31, 2019 and 2018, the applied before-tax discount rate of the recoverable amount of the units were 10.38% and 9.49%, respectively.
- (iv) As of December 31, 2019 and 2018, the intangible assets were not pledged.

(n) Other current assets and other non-current assets

		I	December 31, 2019	December 31, 2018
	Other receivables from metal recycling	\$	16,489	108,738
	Business tax refund receivables		148,896	70,603
	Long-term prepaid rent		-	3,150
	Prepaid expenses		110,080	90,475
	Restricted assets		41,580	41,799
	Refundable deposits		51,358	46,556
	Other receivables		34,028	16,550
	Long-term prepaid intangible assets		51,813	-
	Offset against business tax payable		80,273	40,585
	Others	_	14,838	14,626
		\$	549,355	433,082
(o)	Short-term borrowings			
		_	December 31, 2019	December 31, 2018
	Unused bank credit lines for short-term borrowings	\$ <u>_</u>	1,153,882	2,190,784
	Unused bank credit lines for short-term and long-term borrowings	\$ <u></u>	3,276,609	3,068,629
(p)	Long-term borrowings			
		De	cember 31, 2019	December 31, 2018
	Secured long-term borrowings (in NTD)	\$	1,620,000	1,572,600
	Secured long-term syndicated borrowings (in USD)		562,125	-
	Unsecured long-term borrowings (in NTD)		3,606,000	4,230,000
	Less: long-term liabilities, current portion			
	Total	\$ <u></u>	5,788,125 9,221,400	5,802,600
	Unused bank credit lines for long-term borrowings	\$ <u></u>	9,221,400	5,779,000 1.08%~1.40%
	Annual interest rate	===		
	Expiry date	202	1/6/15~2025/8/16	2020/3/31~2025/8/16

As of December 31, 2019, the remaining balances of the borrowing due were as follows:

Year due	Amount		
January 1, 2021~December 31, 2021	\$	1,035,000	
January 1, 2022~December 31, 2022		2,578,125	
January 1, 2023 and after		2,175,000	
	\$	5,788,125	

- (i) The unused bank credit lines for short-term and long-term borrowings at the reporting date were disclosed in Note 6(o).
- (ii) The collateral for these long-term borrowings was disclosed in Note 8.
- (iii) In June 2019, the Group entered into a three-year syndicated loan agreement with Far Eastern International Bank and other four banks. The total credit facility under this loan agreement is US\$200,000 thousand.

The related financial covenants and restrictions for the syndicated loans mentioned above were as follows:

- 1) At the end of reporting period, current ratio (current assets / current liabilities): shall not be lower than 100%;
- 2) Interest coverage ratio [(profit before tax + depreciation + amortization + interest expense) / interest expense)]: shall not be lower than 100%; and
- 3) Tangible net assets value (equity intangible assets): shall not be lower than NT\$15,000,000 thousand.

After the guarantor signs the loan agreement, the aforementioned financial ratio and criteria will be reviewed semi-annually, which are based on the year-end consolidated financial statements audited by the Certified Public Accountants (CPAs) that are approved by the leading bank, as well as the semi-annual consolidated financial statements reviewed by the CPAs.

For the year ended December 31, 2019, the Group was in compliance with the above financial covenants and restrictions.

(q) Lease liabilities

The carrying amounts of lease liabilities were as follow:

	Dec	ember 31,
		2019
Current	<u>\$</u>	68,740
Non-current	\$	300,587

For the maturity analysis, please refer to Note 6(aa).

The amounts recognized in profit or loss were as follows:

	2019
Interest expenses on lease liabilities	\$ 6,040
Expenses relating to short-term leases	\$ 9,666
Expenses relating to leases of low-value assets, excluding short-term leases of	
low-value assets	\$ 1,303

The amounts recognized in the statement of cash flows for the Group was as follows:

Total cash outflow for leases
2019

\$ 122,00

(i) Real estate and buildings leases

The Group leases land and buildings for its factories and staff dormitories. The leases of them typically run for a period of 2 to 50 years.

(ii) Other leases

The Group leases printer and transportation equipment, with lease terms of 2 to 6 years.

(iii) Others

Parts of the leases of land, transportation equipment, office and staff dormitories are with contract terms of less than one year. These leases are short-term. The Group has elected not to recognize right-of-use assets and lease liabilities for these leases. Also, some leases contain cancellation options exercisable by the Group. In which lease is not reasonably certain to use an optional extended lease term, payments associated with the optional period are not included within lease liabilities.

(r) Operating lease

(i) Lease-lessor

The Group leased its investment property under operating lease, which was disclosed in Note 6(l).

For the years ended December 31, 2019 and 2018, the rental income recognized in other income amounting to \$75,425 thousand and \$79,426 thousand, respectively.

(ii) Lease-lessee

As of December 31, 2018, the Group leases a number of factories, office, parking lots and land etc. under operating lease. The leases typically run for a period of 1 to 30 years.

For the year ended December 31, 2018, the rent expenses amounted to \$70,989 thousand which were recorded as operating costs and operating expenses.

(s) Employee benefits

(i) Defined benefit plans

Reconciliation of defined benefit obligation at present value and plan asset at fair value were as follows:

	Dec	ember 31, 2019	December 31, 2018
Present value of the defined benefit obligations	\$	144,155	141,119
Fair value of plan assets		(45,194)	(42,653)
Net defined benefit liabilities (Note)	\$	98,961	98,466

Note: Recognized liabilities for defined benefit obligations were recognized as other non-current liabilities.

The Group makes defined benefit plan contributions to the pension fund account in the Bank of Taiwan that provides pensions for employees upon retirement. Plans (covered by the Labor Standards Law) entitle a retired employee to receive an annual payment based on years of service and average salary prior to six months of retirement.

1) Composition of plan assets

The Group set aside pension funds in accordance with the legislation from the Ministry of Labor and managed by the Bureau of Labor Founds. The annual budget for the allocation of the minimum income cannot be lower than the income calculated based on the interest rate of the banks' two-year time deposit in accordance with the legislation "Management and Utilization of the Labor Pension Funds".

The Group's labor pension reserve account balance in the Bank of Taiwan amounted to \$45,194 thousand as of December 31, 2019. The utilization of the labor pension fund assets includes the asset allocation and the yield of the fund. Please refer to the website of Bureau of Labor Founds, Ministry of Labor.

2) The movements in present value of the defined benefit obligations

For the years ended December 31, 2019 and 2018, movements in the present value of the defined benefit obligations for the Group were as follows:

	2019	2018
Defined benefit obligations at the beginning	\$ 141,119	102,900
Current service costs and interest cost	4,190	3,205
Remeasurements of the net defined benefit liability (asset):		
 Actuarial (gains) losses arising from financial assumption 	4,175	26,107
-Experience adjustments	 (5,329)	8,907
Defined benefit obligations at the end	\$ 144,155	141,119

(Continued)

3) The movements in fair value of the defined benefit plan assets

For the years ended December 31, 2019 and 2018, movements in the fair value of the plan assets were as follows:

	2019	2018
Fair value of plan assets at the beginning	\$ 42,653	40,312
Interest revenue	579	647
Remeasurements of the net defined benefit liability (asset):		
 Return on plan assets (excluding the interest revenue) 	1,338	963
Amounts contributed to plan	 624	731
Fair value of plan assets at the end	\$ 45,194	42,653

4) The movement in effect of plan asset ceiling

For the years ended December 31, 2019 and 2018, there were no changes in the effect of plan asset ceiling.

5) The expenses recognized in profit or losses

For the years ended December 31, 2019 and 2018, the expenses recognized in profit or losses for the Group were as follows:

	2019	2018
Current service costs	\$ 2,296	1,579
Net interest expense of net defined benefit		
liabilities (assets)	 1,315	979
	\$ 3,611	2,558
	2019	2018
Administrative expenses	\$ 3,611	2,558

6) The remeasurements of the net defined benefit liabilities (assets) recognized in other comprehensive income

For the years ended December 31, 2019 and 2018, the remeasurements of the net defined benefit liabilities (assets) recognized in other comprehensive income were as follows:

	2019	2018
Balance at the beginning	\$ 64,717	30,666
Recognized in the current period	 (2,492)	34,051
Balance at the end	\$ 62,225	64,717

7) Actuarial assumptions

At the end of the reporting date, the principal actuarial assumptions were as follows:

	December 31,	December 31,	
	2019	2018	
Discount rate	1.125 %	1.375 %	
Future salary rate increases	4.500 %	4.500 %	

The Group expects to make contributions of \$129 thousand to the defined benefit plans in the next year starting from December 31, 2019. The weighted average duration of the defined benefit plans is 16.28 years.

8) Sensitivity analysis

As of December 31, 2019 and 2018, the changes in main actuarial assumptions might have an impact on the present value of the defined benefit obligation as follows:

	_	Influences of defined benefit obligations			
		Increase by 0.25%	Decrease by 0.25%		
Balance as of December 31, 2019					
Discount rate	\$	(4,175)	4,333		
Future salary rate increases		4,121	(3,990)		
Balance as of December 31, 2018					
Discount rate	\$	(4,288)	4,475		
Future salary rate increases		4,264	(4,124)		

There is no change in other assumptions when performing the above-mentioned sensitivity analysis. In practice, assumptions may be interactive with each other. The method used on sensitivity analysis is consistent with the calculation on the net pension liabilities.

There is no change in the method and assumptions used in the preparation of sensitivity analysis for 2019 and 2018.

(ii) Defined contribution plans

The Group set aside 6% of the contribution rate of the employee's monthly wages to the Labor Pension personal account of the Bureau of Labor Insurance in accordance with the provisions of the Labor Pension Act. The Group set aside a fixed amount to the Bureau of Labor Insurance without the payment of additional legal or constructive obligations.

The Group set aside \$99,527 thousand and \$93,963 thousand, respectively, of the pension under the pension plan costs to the Bureau of Labor Insurance for the years ended December 31, 2019 and 2018.

(iii) The Group's Mainland China subsidiaries have a defined contribution plan. Monthly contributions to an independent fund administered by the government in accordance with the pension regulations in the People's Republic of China (PRC) are based on certain percentage of employees' monthly salaries and wages. Other than the monthly contributions, the Group has no further obligations. For the years ended December 31, 2019 and 2018, the Group recognized the pension costs in accordance with the pension regulations and amounted to \$5,090 thousand and \$3,397 thousand, respectively.

(t) Income tax

(i) Income tax expense

The amount of income tax expense were as follows:

		2019	2018
Current tax expense (benefit)			_
Current period	\$	1,101,622	764,816
Adjustment for prior periods		(8,432)	(11,894)
Subtotal		1,093,190	752,922
Deferred tax expense (benefit)			
Origination and reversal of temporary differences		(100,523)	(77,567)
Adjustment in tax rate			(6,794)
Subtotal		(100,523)	(84,361)
Income tax expense	\$ <u></u>	992,667	668,561

The amount of income tax (expense) benefit recognized in other comprehensive income for the years ended December 31, 2019 and 2018 were as follows:

	2	2019	2018
Components of other comprehensive income that will not be classified to profit or loss:			
The remeasurements of defined benefit plans	\$	(499)	7,730

Reconciliation of income tax expenses (benefit) and profit before tax were as follows:

	2019	2018
Profit before tax	\$ 5,393,428	3,734,623
Estimated income tax calculated using the Company's domestic tax rate	\$ 1,078,685	746,924
Adjustment in tax rate	-	(6,794)
Tax-exempt income	(77,433)	(16,660)
Investment tax credits	(75,519)	(61,550)
Change in unrecognized deductible temporary differences	1,933	33,152
Change in provision in prior periods	(8,432)	(11,894)
Surtax on unappropriated earnings (2019: 5%; 2018: 10%)	37,906	42,928
Others	 35,527	(57,545)
	\$ 992,667	668,561

(ii) Deferred tax assets and liabilities

1) Unrecognized deferred tax assets and liabilities

Deferred tax assets have not been recognized in respect of the following items:

	De	cember 31, 2019	December 31, 2018
Tax effect of deductible temporary differences	\$	40,442	51,984
The carry forward of unused tax losses		171,684	158,209
	\$	212,126	210,193

The R.O.C. Income Tax Act allows net losses, as assessed by the tax authorities, to offset taxable income over a period of ten years for local tax reporting purposes. Deferred tax assets have not been recognized in respect of these items because it is not probable that future taxable profit will be available against which the Group can utilize the benefits therefrom.

As of December 31, 2019, the information of the Group's unutilized business losses for which no deferred tax assets were recognized are as follows:

Year of loss	Unutilize	ed business loss	Expiry date
2010	\$	48,013	2020
2011		74,383	2021
2012		44,302	2022
2013		49,138	2023
2014		53,221	2024
2015		50,740	2025
2016		77,243	2026
2017		142,749	2027
2018		152,741	2028
2019		165,891	2029
	\$	858,421	

As of December 31, 2019 and 2018, there were no deferred tax liabilities have not been recognized.

2) Changes in the amount of deferred tax assets and liabilities for the years ended December 31, 2019 and 2018 were as follows:

	0	wance for bsolete entories	Difference in depreciation expense between financial and tax method	Unrealized investment loss recognized under equity method	Others	Total
Deferred tax assets:						
Balance as of January 1, 2019	\$	32,474	58,961	3,102	41,265	135,802
Recognized in profit or loss		6,162	1,582	76,766	16,013	100,523
Recognized in other comprehensive income					(499)	(499)
Balance as of December 31, 2019	\$	38,636	60,543	79,868	56,779	235,826
Balance as of January 1, 2018	\$	22,992	23,256	2,817	28,135	77,200
Recognized in profit or loss		9,482	35,705	285	5,400	50,872
Recognized in other comprehensive income					7,730	7,730
Balance as of December 31, 2018	\$	32,474	58,961	3,102	41,265	135,802

	in i re- unc	nrealized vestment income cognized ler equity nethod	Total	
Deferred tax liabilities:				
Balance as of January 1, 2018	\$	33,489	33,489	
Recognized in profit or loss	_	(33,489)	(33,489)	
Balance as of December 31, 2018	\$		-	

There was no change in the amount of deferred tax liabilities for the year ended December 31, 2019.

(iii) Assessment

The Company's corporate income tax returns for all the years through 2017 were assessed and approved by the tax authorities National Taxation Bureau of the Northern Area, Ministry of Finance.

(u) Capital and other equity

(i) Ordinary share issuance

As of December 31, 2019 and 2018, the Company's authorized share capital consisted of 1,000,000 thousand shares of ordinary shares, with \$10 dollars par value per share, of which 424,056 thousand shares, and 423,814 thousand shares, respectively, were issued. The Company has reserved \$1,000,000 thousand for employee stock options.

Reconciliations of shares outstanding for the years ended December 31, 2019 and 2018:

	Ordinary share (in thousands)		
	2019	2018	
Balance as of beginning	423,814	422,666	
Restricted shares of stock issued for employees	262	1,148	
Redeem restricted shares of stock issued for			
employees	(20)	-	
Balance as of ending	424,056	423,814	

On March 21, 2019, the Company's Board of Directors approved a resolution to redeem the unvested restricted employee share of stock amounting to 20 thousand shares, at \$10 dollars par value per share, amounting to \$200 thousand. The recognition date for capital reduction was March 31, 2019. Accordance with the resolution of Board of Directors meeting held on May 14, 2019, the Company issued 262 thousand shares, at \$10 dollars par value per share, amounting to \$2,620 thousand. All related registration procedures had been completed.

On June 15, 2018, the shareholders' meeting approved a resolution to issue 1,700 thousand new restricted employee shares, at \$10 dollars par value per share, amounting to \$17,000 thousand, to full-time regular employees who meet specific requirements. The above transaction had been approved by the Financial Supervisory Commission. In accordance with the resolution of Board of Directors meeting held on September 14, 2018, the Company issued 1,148 thousand shares, at \$10 dollars par value per share, amounting to \$11,480 thousand. The aforementioned stock issuance had been registered with the government authorities.

(ii) Capital surplus

The detail of capital surplus at the reporting date were as follows:

	De	cember 31, 2019	December 31, 2018	
Additional paid-in capital	\$	9,031,035	9,031,035	
Changes in equity of associates and joint ventures accounted for using equity method		-	635	
Employee stock options		1,452	3,810	
Restricted shares of stock issued for employees		211,821	163,877	
	\$	9,244,308	9,199,357	

In accordance with amended Company Act, realized capital reserves can only be reclassified as share capital or be distributed as cash dividends after offsetting against losses. The aforementioned capital reserves include share premiums and donation gains. In accordance with the Regulations Governing the Offering and Issuance of Securities by Securities Issuers, the actual amount of capital reserves to be reclassified under share capital shall not exceed 10% of the actual share capital amount.

(iii) Retained earnings

The Company's Articles of Incorporation stipulate that 10% of the balance of annual income or earnings after deducting accumulated deficit, if any, must be set aside as a legal reserve and a special capital reserve is likewise appropriated or the annual income or earnings are retained in accordance with the relevant laws or regulations or as requested by the authorities. Otherwise, the Company shall set aside at least 50% for shareholder, the distribution of remaining balance of the earnings should be further proposed by the Board of Directors and resolved by the shareholders' meeting. And the cash dividends should not lower than 10% of the total stockholders' dividends.

It is authorized the distributable dividends and bonuses or legal capital reserve and capital reserve in whole or in part may be paid in cash after a resolution has been adopted by a majority vote at a meeting of the Board of Directors attended by two-thirds of the total number of directors; and in addition thereto a report of such distribution shall be submitted to the shareholders' meeting.

As the Company is a technology and capital-intensive enterprise and is in its growth phase, it has adopted a more prudent approach in appropriating its remaining earnings as its dividend policy in order to sustain its long-term capital needs and thereby maintain continuous development and steady growth.

1) Legal reserve

If the Company experienced profit for the year, the meeting of shareholders shall decide on the distribution of the legal reserve either by new shares or by cash of up to 25% of the actual share capital.

2) Special reverse

In accordance with Permit No. 1010012865 issued by the FSC on April 6, 2012, a portion of current period earnings and undistributed prior period earnings shall be reclassified as a special earnings reserve during earnings distribution. The amount to be reclassified should be equal to the total net reduction of current period of other shareholders' equity resulting from the IFRS first-time adoption. Similarly, a portion of undistributed prior period earnings shall be reclassified as a special earnings reserve (and does not qualify for earnings distribution) to account for cumulative changes to other shareholders' equity pertaining to prior periods due to the IFRS first time adoption. Amounts of subsequent reversals pertaining to the net reduction of other shareholders' equity shall qualify for additional distributions.

3) Appropriations of earnings

The appropriations of earning for 2018 and 2017 had been approved in shareholders' meetings held on June 14, 2019 and June 15, 2018, respectively. The appropriations and dividends were as follows:

Cash dividends 2018 2017 2,118,972 2,958,665

The above-mentioned appropriations of earning for 2018 and 2017 were consistent with the resolutions of the meeting of the Board of Directors.

The related information mentioned above can be found on websites such as the Market Observation Post System.

On March 18, 2020, the Company's Board of Directors resolved to appropriate the 2019 earnings. The earnings were appropriated as follows:

	2019	1
	Amount per share (in dollars)	Total amount
Cash dividends	\$ 7.00 \$	2,968,395

(iv) Other equity interests, net of tax

translation of through other foreign financial comprehensive statements income	
Balance as of January 1, 2019 \$ (36,200) 958,39	0 (158,308)
Foreign currency differences (net of tax):	
The Group (147,365) -	-
Associates 4,115 -	-
Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of tax) - 2,114,85 Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at	6 -
fair value through other	
comprehensive income (net of tax) - 16,64	
Issuance of restricted shares of employees	(50,364)
Compensation cost arising from restricted	71 (42
shares of stock issued to employees	71,643
Balance as of December 31, 2019 \$ (179,450) 3,089,88	<u>(137,029)</u>
Unrealized gains (losses) on Exchange financial assets Unrealize	d Other unearned
differences on at fair value gains (losses) translation of through other available-fo foreign financial comprehensive sale financi statements income assets	on compensation for restricted ial shares of employees
translation of foreign financial statements Balance as of January 1, 2018 translation of foreign financial statements \$\frac{\text{through other comprehensive income}}{\text{statements}} = \frac{\text{available-foreign financial income}}{\text{statements}} = \frac{\text{available-foreign financial income}}{\text{statements}} = \frac{\text{statements}}{\text{statements}} = \text{	on compensation for restricted shares of employees
translation of foreign financial statements Balance as of January 1, 2018 Effects of retrospective application Ethough other comprehensive income assets 1,568, 1,401,839 1,568, 1,568,	on compensation for restricted shares of employees
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Balance as of January 1, 2018\$ (100,208)-1,401,839-Effects of retrospective application-1,401,839-Balances at the beginning after adjusted Foreign currency differences (net of tax):(100,208)1,401,839-	on compensation for restricted shares of employees
Balance as of January 1, 2018\$ (100,208)-1,568,Effects of retrospective application-1,401,839-Balances at the beginning after adjusted(100,208)1,401,839-Foreign currency differences (net of tax): The Group95,350	on compensation for restricted shares of employees
Balance as of January 1, 2018\$ (100,208)-1,568,Effects of retrospective application-1,401,839-Balances at the beginning after adjusted(100,208)1,401,839-Foreign currency differences (net of tax):95,350Associates(29,921)	on compensation for restricted shares of employees
translation of foreign financial statements Balance as of January 1, 2018 \$ (100,208) - 1,568, Effects of retrospective application Balances at the beginning after adjusted Foreign currency differences (net of tax): The Group Associates (29,921) Disposal of investments accounted for	on compensation for restricted shares of employees
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translation of foreign financial statements Balance as of January 1, 2018 \$ (100,208) \$ - 1,568, Effects of retrospective application Balances at the beginning after adjusted Foreign currency differences (net of tax): The Group \$95,350 \$ - \$ - \$ - \$ Associates Disposal of investments accounted for using equity method Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of tax) Translation of foreign currency differences (100,208) - 1,401,839	on compensation for restricted shares of employees
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Balance as of January 1, 2018(100,208)-1,568, (100,208)Effects of retrospective application-1,401,839(1,568, (100,208))Balances at the beginning after adjusted(100,208)1,401,839-Foreign currency differences (net of tax):95,350The Group95,350Associates(29,921)Disposal of investments accounted for using equity method(1,421)Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of tax)-(352,044)-Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other-(352,044)-	on compensation for restricted shares of employees
Balance as of January 1, 2018 \$ (100,208) - 1,568, Effects of retrospective application Balances at the beginning after adjusted Foreign currency differences (net of tax): The Group 95,350 Associates (29,921) Disposal of investments accounted for using equity method (1,421)	on compensation for restricted shares of employees 176 - 176
Balance as of January 1, 2018(100,208)-1,568, comprehensive incomeEffects of retrospective application-1,401,839(1,568, doing of the sake financial incomeBalances at the beginning after adjusted(100,208)1,401,839-Foreign currency differences (net of tax):95,350The Group95,350Associates(29,921)Disposal of investments accounted for using equity method(1,421)Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of tax)-(352,044)-Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other comprehensive income (net of tax)-(91,405)-Issuance of restricted shares of employees	on compensation for restricted shares of employees 176 - 176

(v) Share-based payment

(i) The Company insurance restricted shares of stock for employee

On June 15, 2018, the shareholders' meeting approved a resolution to issue 1,700 thousand new restricted employee shares to full-time regular employees who meet specific requirements. The above transaction had been approved by the Financial Supervisory Commission. The Company decided that the grant date was set on August 22, 2018 and in accordance with the resolution of Board of Directors meeting held on September 14, 2018, the Company issued 1,148 thousand shares (the date of capital increase was set on September 14, 2018), with the fair-value on grant date amounting to \$175,357 thousand. On March 21, 2019, the Company's Board of Directors approved a resolution to redeem the unvested restricted employee share of stock amounting to 20 thousand shares. The Company decided that the second grant date was set on May 10, 2019. And in accordance with the resolution of Board of Directors meeting held on May 14, 2019, the Company issued 262 thousand shares (the date of capital increase was set on May 14, 2019), with the fair-value on grant date amounting to \$50,364 thousand. The remaining amount of 290 thousand shares will not be processed during the remaining period.

As of December 31, 2019, there were 1,390 thousand outstanding shares.

Those employees with the restricted stock awards (RSA) are entitled to purchase shares without cost under the conditions that these employees will continue to provide service to the Company for at least 3 years (from the grant date), and meet certain requirement. Based on the Company's requirements, the restricted employee shares should be fully vested in the third year after the grant date. These shares shall not be sold, pledged, transferred, gifted, or disposed by any other means to third parties during the custody period. During the vesting period, the RSA can participate in stock and cash dividends and subscription to cash rights issues and subscription is not required to be deposited in trust. The cash and stock dividends distributed during the custody period will be granted to the employees. If the shares remain unvested after the vesting period, the Company will redeem all the unvested shares, and cancel the shares thereafter.

For the years ended December 31, 2019 and 2018, the Company recognized the compensation cost of \$71,643 thousand and \$17,049 thousand for the aforementioned RSA, respectively.

(ii) The employee stock option plans (ESOPs) of subsidiary (PBL)

	2018 ESOPs
Grant date	2018.4.20
Number of options granted (unit)	5,560
Number of common shares eligible (share)	1,000
Contract period	2018.4.20~2026.4.19
Vesting period	2018.4.20~2021.4.19
Recipients	Employees of PBL

PBL used the Black-Scholes Model in measuring the fair value of its employee stock option at the date of grant. The main inputs to the valuation model were as follows:

	2018 employee stock options exercise in the 1st year	2018 employee stock options exercise in the 2 nd year	2018 employee stock options exercise in the 3 rd year	
Fair value at grant date (dollars)	\$ 3.93	\$ 4.13	\$ 4.32	
Share price at grant date (dollars)	\$ 11.29	\$ 11.29	\$ 11.29	
Exercise price (dollars)	\$ 11	\$ 11	\$ 11	
Expected volatility	40%	40%	40%	
Expected life	4.5 years	5 years	5.5 years	
Risk-free interest rate	0.70%	0.74%	0.77%	

Details of the employee stock options were as follows:

	2019		2018			
	aver price	Veighted age exercise e (expressed i dollars)	Shares of options (expressed in thousands)	Weighted average exercise price (expressed in dollars)	Shares of options (expressed in thousands)	
Outstanding at January 1	\$	11	5,560	-	-	
Granted during the period		-		11	5,560	
Outstanding at December 31		11	5,560	11	5,560	
Exercisable at December 31		-	2,224	-		

For the year ended December 31, 2019 and from the acquisition date to December 31, 2018, PLB recognized the compensation cost of \$6,132 thousand and \$6,807 thousand for the aforementioned ESOPs, respectively.

(w) Earnings per share ("EPS")

For the years ended December 31, 2019 and 2018, the Company's earnings per share were calculated as follows:

	 2019	2018
Basic earnings per share:		
Profit belonging to common shareholders	\$ 4,474,399	3,124,454
Weighted average number of outstanding shares of common stock (in thousands shares)	422,666	422,666
Basic earnings per share (in dollars)	\$ 10.59	7.39

	2019	2018
Diluted earnings per share:	_	
Profit belonging to common shareholders	\$ 4,474,399	3,124,454
Weighted average number of outstanding shares of common stock (in thousands shares)	422,666	422,666
Effect of potentially dilutive common stock		
Employee remuneration (in thousands shares)	1,531	2,381
Restricted employee shares (in thousands shares)	 752	
Weighted average number of common stock (diluted) (in thousands shares)	 424,949	425,047
Diluted earnings per share (in dollars)	\$ 10.53	7.35

For the year ended December 2018, the new restricted employee shares have anti-diluted effect, therefore, the new restricted employee shares were not included in the calculation of effect on potentially diluted common stock.

(x) Revenue from contracts with customers

(i) Disaggregation of revenue

	2019						
	Segment- Foundry	Segment- Agriculture technology	Segment- Others	Total			
Primary geographical markets:							
Asia	3 14,088,651	428,403	7,989	14,525,043			
Americas	3,998,159	-	-	3,998,159			
Taiwan	1,862,898	-	65,622	1,928,520			
Europe	925,986		16	926,002			
S	<u>20,875,694</u>	428,403	73,627	21,377,724			
Main product/ services lines:							
Foundry	3 20,874,280	-	-	20,874,280			
Others	1,414	428,403	73,627	503,444			
9	20,875,694	428,403	73,627	21,377,724			

		2018					
		Segment- Segment- Agriculture technology		Segment- Others	Total		
Primary geographical market	s:						
Asia	\$	10,011,798	353,128	4,078	10,369,004		
Americas		4,169,406	-	-	4,169,406		
Taiwan		2,111,067	-	20,726	2,131,793		
Europe	_	640,513			640,513		
	\$	16,932,784	353,128	24,804	17,310,716		
Main product/ services lines:	-						
Foundry	\$	16,932,330	-	-	16,932,330		
Others	_	454	353,128	24,804	378,386		
	\$	16,932,784	353,128	24,804	17,310,716		

(ii) Balance of contracts

	December 31, 2019		December 31, 2018	January 1, 2018	
Notes receivable	\$	684	459	-	
Accounts receivable		2,410,333	1,424,223	1,595,442	
Less: loss allowance		(4,344)	(2,317)	(2,086)	
	\$	2,406,673	1,422,365	1,593,356	
Contract liabilities (Note)	\$	260,426	112,694	99,514	

Note: Contract liabilities are included in other current liabilities.

For details of accounts receivable and allowance for impairment, please refer to Note 6(c).

The major change in the balance of contract liabilities is the difference between the time frame in the performance obligation to be satisfied and the payment to be received. The amount of revenue recognized for the years ended December 31, 2019 and 2018, that was included in the contract liabilities balance at the beginning of the period was \$91,383 thousand and \$84,264 thousand, respectively.

(y) Employees' and directors' remuneration

According to the Company's Article of Incorporation, if there is any net profit after closing of a fiscal year, it shall be allocated according to the following principles:

(i) Employees' remuneration: not less than 5% but no more than 10% and shall be determined and pursuant to Employee Bonus Procedure of the Company. In addition, employee's profit-sharing remuneration shall be distributed in the form of shares or cash. Stock-type employee remuneration may be distributed to qualified employees of affiliates of the Company.

(ii) Remuneration of Directors: no more than 3%.

However, if there are any accumulated losses of the Company, the Company shall pre-reserve the amount to offset the loss. The distribution of employees' profit-sharing bonus and remuneration of Directors shall follow the special resolution by Board of Directors, and report it to the shareholders' meeting.

The Company estimated its employees' and directors' remuneration as follows:

	20	19	2018
Employees' remuneration	\$ 3	368,400	255,600
Directors' remuneration		106,900	74,200
	\$ 4	<u>475,300</u>	329,800

The amount of employee remuneration, and directors' remuneration were estimated based on profit before tax, net of the amount of the remuneration, and multiplied by the rule of Company's Article of Incorporation. The above remuneration was included in the operating costs and operating expenses of the years ended December 31, 2019 and 2018. The differences between the actual distributed amounts as determined by the Board of Directors and those recognized in the financial statements, if any, shall be accounted for as changes in accounting estimates and recognized in profit or loss in the following year. There was no difference between the actual distributed amounts as determined by the Board of Directors and those recognized in the Company's parent-company-only financial statements of the years ended December 31, 2019 and 2018.

The related information mentioned above can be found on websites such as the Market Observation Post System.

(z) Non-operating income and expenses

(i) Other income

	 2019	2018
Interest income:		_
Interest income from bank deposits	\$ 67,107	57,334
Interest income from financial assets at amortized cost	205	697
Other interest income	 53	1,033
Total interest income	 67,365	59,064
Dividend income	121,790	97,268
Rent income	 85,182	89,386
Total	\$ 274,337	245,718

(ii) Other gains and losses

		_	2019	2018
	Gains (losses) on disposals of property, plant and equipment	\$	(375,910)	2,210
	Gains (losses) on disposals of investments		(25,666)	286,391
	Foreign exchange gains (losses)		(74,602)	129,261
	Gains (losses) on financial assets or liabilities at fair value through profit or loss		221,437	(32,394)
	Others		67,217	30,366
	Total	\$	(187,524)	415,834
(iii)	Finance costs			
			2019	2018
	Interest expenses	\$	50,446	22,199
	Other finance costs		253	257
	Total	\$	50,699	22,456

(aa) Financial instruments

(i) Credit risk

1) Exposure of credit risk

As at reporting, the Group's exposure to credit risk and the maximum exposure were mainly from:

- a) The carrying amount of financial assets recognized in the consolidated balance sheet; and
- b) The amount of liabilities as a result from the Group providing financial guarantees was \$220,353 thousand and \$225,792 thousand as of December 31, 2019 and 2018.

2) Disclosures about concentrations of risk

As of December 31, 2019 and 2018, the Group's accounts receivable were concentrated on 5 and 4 customers, whose accounts represented 56% and 66% of the total accounts receivable, respectively. In order to reduce the credit risk on these accounts receivable, the Group continues to evaluate the financial status of these customers and request for collaterals when necessary. The Group evaluates the possible collectability of accounts receivable periodically and accrues allowance for doubtful accounts, if necessary.

3) Receivables and debt securities

For information on credit risk regarding notes and accounts receivable, please refers to Note 6(c).

Other financial assets measured at amortized cost include other receivables and financial assets at amortized cost. For related information of investment and impairment, please refers to Notes 6(b) and 6(d).

All of these financial assets are considered to have low risk, and thus, the impairment provision recognized during the period was limited 12 months expected losses.

(ii) Liquidity risk

The following were the contractual maturities of financial liabilities:

	(Carrying amount	Contractual cash flows	Within 1 year	1-2 years	2-5 years	Over 5 years
As of December 31, 2019							
Non-derivative financial liabilities							
Secured bank loans	\$	2,182,125	2,329,782	33,800	33,800	1,900,796	361,386
Unsecured bank loans		3,606,000	3,712,122	39,312	1,068,695	2,277,837	326,278
Notes and accounts payable		1,826,214	1,826,214	1,826,214	-	-	-
Other payables		1,288,817	1,288,817	1,288,817	-	-	-
Guarantee deposits received		125,611	125,611	15,611	-	110,000	-
Lease liabilities	_	369,327	495,192	69,764	47,590	102,056	275,782
	\$_	9,398,094	9,777,738	3,273,518	1,150,085	4,390,689	963,446
As of December 31, 2018							
Non-derivative financial liabilities							
Secured bank loans	\$	1,572,600	1,661,678	21,294	124,638	997,014	518,732
Unsecured bank loans		4,230,000	4,350,337	48,837	1,494,684	2,560,556	246,260
Notes and accounts payable		1,093,074	1,093,074	1,093,074	-	-	-
Other payables		880,314	880,314	880,314	-	-	-
Guarantee deposits received	_	143,068	143,068	17,487	9,431	116,150	-
	\$ _	7,919,056	8,128,471	2,061,006	1,628,753	3,673,720	764,992

The Group did not expect that the cash flows included in the maturity analysis could occur significantly earlier or at significantly different amounts.

(iii) Currency risk

1) Exposure to currency risk

The Group's significant exposure to foreign currency risk were as follows:

		December 31, 2019			December 31, 2018			
		Foreign currency	Exchange rate	NT\$	Foreign currency	Exchange rate	NT\$	
Financial assets								
Monetary items								
USD	\$	206,117	29.98	6,179,373	191,938	30.72	5,896,330	
EUR		75	33.59	2,531	172	35.20	6,038	
JPY		1,321,385	0.2760	364,702	3,014	0.2782	842	
GBP		11	39.36	433	11	38.88	428	
HKD		51,537	3.85	198,365	62	3.92	241	
RMB		-			8,884	4.47	39,713	
			<u>\$</u>	6,745,404		\$	5,943,592	
Non-monetary item	<u>s</u>		·			•		
USD	\$	10,570	29.98	318,268	6,312	30.72	193,828	
RMB		110,112	4.31	472,528	97,324	4.47	433,761	
			\$	790,796		\$	627,589	
Financial liabilities			·			•		
Monetary items								
USD	\$	57,240	29.98	1,716,041	17,126	30.72	526,123	
EUR		866	33.59	29,075	509	35.20	17,922	
JPY		595,366	0.2760	164,321	328,936	0.2782	91,510	
RMB		-			37	4.47	167	
			\$	1,909,437		\$	635,722	

2) Sensitivity analysis

The Group's exposure to foreign currency risk arises from the translation of the foreign currency exchange gains and losses on cash and cash equivalents, notes and accounts receivable, other receivables, financial assets at fair value through profit or loss, notes and accounts payable, long-term borrowings and other payables that are denominated in foreign currency. A strengthening (weakening) 5 % of appreciation (depreciation) of the NTD against the USD, EUR, GBP, JPY, HKD, RMB and etc. for the years ended December 31, 2019 and 2018 would have increased (decreased) the net profit after tax by \$204,998 thousand and \$220,129 thousand, respectively. The analysis assumes that all other variables remain constant.

3) Exchange gains or losses

Since the Group has many kinds of functional currency, the information on foreign exchange gains (losses) on monetary items is disclosed by total amount. For years ended December 31, 2019 and 2018, foreign exchange gains (losses) (including realized and unrealized portions) amounted to \$(74,602) thousand and \$129,261 thousand, respectively.

(iv) Interest rate risk

Please refer to the attached note for the liquidity risk and the Group's interest rate exposure to its financial liabilities.

The following sensitivity analysis is based on the risk exposure to interest rates on the nonderivatives financial instruments on the reporting date. For variable rate instruments, the sensitivity analysis assumes the variable rate liabilities are outstanding for the whole year on the reporting date.

If the interest rate increases (decreases) by 0.5%, the Group's net profit after tax would have increased (decreased) by \$16,686 thousand and \$11,299 thousand for the years ended December 31, 2019 and 2018, respectively, all other variable factors that remain constant. This is mainly due to the Group's borrowing in floating rates.

(v) Fair value

1) Accounting classifications and fair values

The fair value of financial assets at fair value through profit or loss and financial assets at fair value through other comprehensive income are measured on a recurring basis. The carrying amount and fair value of the Group's financial assets and liabilities, including the information on fair value hierarchy were as follows; however, except as described in the following paragraphs, for financial instruments not measured at fair value whose carrying amount is reasonably close to the fair value, and lease liabilities disclosure of fair value information is not required.

		December 31, 2019					
	Car	rrying value	Level 1	Level 2	Level 3	Total	
Financial assets at fair value through profit or loss							
Stocks listed on domestic markets	\$	206,359	206,359	-	-	206,359	
Funds and investment		300,490	300,490	-	-	300,490	
Private fund		565,804	-	-	565,804	565,804	
Subtotal	\$	1,072,653	506,849	-	565,804	1,072,653	
Financial assets at fair value through other comprehensive	income						
Stocks listed on domestic and foreign markets	\$	3,855,958	3,855,958	-	-	3,855,958	
Non-public stocks		700,247	-	-	700,247	700,247	
Subtotal	\$	4,556,205	3,855,958	-	700,247	4,556,205	
Financial assets measured at amortized cost	=						
Cash and cash equivalents (Note)	\$	5,926,473	-	-	-	-	
Notes and accounts receivable (Note)		2,406,673	-	-	-	-	
Other receivables (Note)		50,517	-	-	-	-	
Other non-current assets (Note)		92,938	-	-	-	-	
Subtotal	\$	8,476,601		-	-	-	
Financial liabilities measured at amortized cost	=						
Bank loans (Note)	\$	5,788,125	-	-	-	-	
Notes and accounts payable (Note)		1,826,214	-	-	-	-	
Other payables (Note)		1,288,817	-	-	-	-	
Guarantee deposits received (Note)		125,611	-	-	-	-	
Lease liabilities (Note)		369,327	-	-	-	-	
Subtotal	\$	9,398,094		-		-	
	_						

	December 31, 2018						
				value			
	Car	rrying value	Level 1	Level 2	Level 3	Total	
Financial assets at fair value through profit or loss							
Stocks listed on domestic markets	\$	96,955	96,955	-	-	96,955	
Funds and investment		6,308	6,308	-	-	6,308	
Private fund		722,405			722,405	722,405	
Subtotal	\$	825,668	103,263		722,405	825,668	
Financial assets at fair value through other comprehensive inc	ome						
Stocks listed on domestic and foreign markets	\$	1,791,646	1,791,646	-	-	1,791,646	
Non-public stocks		564,486			564,486	564,486	
Subtotal	\$	2,356,132	1,791,646		564,486	2,356,132	
Financial assets measured at amortized cost							
Cash and cash equivalents (Note)	\$	5,462,173	-	-	-	-	
Financial assets measured at amortized cost (Note)		29,900	-	-	-	-	
Notes and accounts receivable (Note)		1,422,365	-	-	-	-	
Other receivables (Note)		125,288	-	-	-	-	
Other non-current assets (Note)		88,355		_		-	
Subtotal	\$	7,128,081	-	-		-	
Financial liabilities measured at amortized cost							
Bank loan (Note)	\$	5,802,600	-	-	-	-	
Notes and accounts payable (Note)		1,093,074	-	-	-	-	
Other payables (Note)		880,314	-	-	-	-	
Guarantee deposits received (Note)		143,068		-			
Subtotal	\$	7,919,056	-	-		-	

Note: The information on fair value is not disclosed since the carrying amount is a reasonable approximation of fair value.

2) Valuation techniques of financial instrument not valued at fair value

The valuation techniques of the Group's financial instruments not valued at fair value by using the methods and assumptions are as follows:

• Financial assets measured at amortized cost and financial liabilities measured at amortized cost.

If recent transaction prices or market maker quotes are available, the fair value is based on such information. If there is no quoted market price available, the fair value is determined by using valuation techniques and calculated as the present value of the estimated cash flows.

3) Valuation techniques of financial instruments valued at fair value

a) Non-derivative instruments

The fair value of financial assets and liabilities traded in an active market is based on the quoted market prices. The quotation, which is published by the main exchange center or that which was deemed to be a public bond by the Treasury Bureau of Central Bank, is included in the fair value of the listed securities instruments and the debt instruments in active markets with open bid.

A financial instrument is regarded as the quoted price in an active market if the quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency; and if those prices represent the actual and regularly occurring market transactions on an arm's length basis.

Otherwise, the market is deemed to be inactive. Normally, a market is considered to be inactive when:

- The bid-ask spread is increasing; or
- The bid-ask spread varies significantly; or
- There has been a significant decline in trading volume.

When the financial instrument of the Group is traded in an active market, its fair value is illustrated by the category and nature as follows:

- Financial assets and liabilities with standard terms and conditions and traded in an active market, for example, investment in stock of listed companies: the fair value is based on the market quoted price.
- Close-end funds with standard terms and conditions, such as money market funds, and bond funds; investors can require the investment trust company to redeem the fund at any time. The fair value is based on the net value of the fund.

Except for the above-mentioned financial instruments traded in an active market, the fair value is based on the valuation techniques or the quotation from the counterparty. The fair value refers to the current fair value of the other financial instruments with similar conditions and characteristics, using a discounted cash flow analysis or other valuation techniques, such as calculations of using models (for example, applicable yield curve from Taipei Exchange, or average quoted price on interest rate of commercial paper from Reuters), based on the information acquired from the market at the balance sheet date.

When the financial instrument of the Group is not traded in an active market, its fair value is determined as follows:

- The fair value is determined based on the ratio of the quoted market price of the comparative listed company and its book value per share. Also, the fair value is discounted for its lack of liquidity in the market.
- The fair value is determined by using the asset-based approach, whose assumptions are based on the market approach, income approach, cost approach or other valuation methods according to the nature of the assets or liabilities of the subject companies.

b) Derivative instruments

The fair value is determined by using the models that are acceptable to the market participants, for example, discounted cash flow analyses or option pricing models. Forward exchange contracts are measured using quoted forward exchange rates. The fair value of structured interest derivative financial instruments is determined by using the proper option pricing models, such as Black-Scholes model, or other valuation technique, such as Monte Carlo simulation.

4) Transfer between level 2 and level 1

For years ended December 31, 2019 and 2018, there was no transfer on the fair value hierarchy of level 2 and level 1 financial asset.

5) Movement of level 3

	F	air value through profit or loss	Fair value through other comprehensive income Unquoted equity
	_	Private fund	instruments
Balance as of January 1, 2019	\$	722,405	564,486
Total gains or losses:			
Recognized in profit and loss		67,261	-
Recognized in other comprehensive incom	e	-	126,486
Purchased		142,794	-
Reclassify		-	34,525
Disposals		(366,621)	(17,274)
Capital reduction		(35)	(6,667)
Effect of changes in foreign exchange rates	_		(1,309)
Balance as of December 31, 2019	\$_	565,804	700,247
Balance as of January 1, 2018	\$	612,978	630,405
Total gains or losses:			
Recognized in profit and loss		(18,166)	-
Recognized in other comprehensive incom	e	-	(51,781)
Purchased		127,593	-
Disposals		-	(15,837)
Effect of changes in foreign exchange rates	_	-	1,699
Balance as of December 31, 2018	\$ _	722,405	564,486

The preceding gains and losses were recognized as "other gains and losses" and "unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income". As of December 31, 2019 and 2018, the related information of the assets which were still held by the Group were as follows:

	2019	2018
Total gains or losses		
Profit or loss (recognized as other gains and losses)	\$ (89)	(18,166)
Other comprehensive income (recognized as unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income)	121,738	(51,781)

(Continued)

6) Quantified information on significant unobservable inputs (Level 3) used in fair value measurement

The Group's financial instruments that use Level 3 inputs to measure fair value include "financial assets at fair value through profit or loss – private funds" and "financial assets at fair value through other comprehensive income – equity investments".

Most of the fair value measurements categorized within Level 3 use the single and significant unobservable input. Equity investments without an active market contains multiple significant unobservable inputs. The significant unobservable inputs of the equity investments are independent from each other, as a result, there is no relevance between them.

Quantified information of significant unobservable inputs was as follows:

Item	Valuation technique	Significant unobservable inputs	Inter-relationship between significant unobservable inputs and fair value measurement
Financial assets at fair value through other comprehensive income – equity investments without an active market	Comparable listed companies approach	 Price-book ratio (as of December 31, 2019 and 2018 was 1.65~6.14 and 1.34~3.50, respectively) Market liquidity discount rate (as of December 31, 2019 and 2018 were both 80%) 	 The higher the price-book ratio, the higher the fair value The higher the market liquidity discount rate, the lower the fair value
	 Net asset value method 	Net asset value	Not applicable
Financial assets at fair value through profit or loss – private fund	 Net asset value method 	Net asset value	Not applicable

7) Sensitivity analysis of reasonably possible alternative assumptions for fair value measurements in Level 3 of the fair value hierarchy

The fair value measurements of the Group's financial instruments are reasonable. However, changes in the use of valuation models or valuation variables may affect the estimations. For fair value measurements in Level 3, a fluctuation in the valuation variable by 5% would have the following effect:

			_		anges in fair rofit or loss	value o	anges in fair n other sive income
	Inputs	Increase or decrease		Favorable	Unfavorable	Favorable	Unfavorable
December 31, 2019							
Financial assets at fair value through profit or loss							
Private fund	Net asset value	5%	\$	28,290	(28,290)	-	-
Financial assets at fair value through other comprehensive income							
Equity investments without an active market	Price-book ratio	5%		-	-	18,939	(18,939)
"	Market liquidity discount rate	5%		-	-	18,939	(18,939)
"	Net asset value	5%		-	-	16,074	(16,074)
December 31, 2018							
Financial assets at fair value through profit or loss							
Private fund	Net asset value	5%	\$	36,120	(36,120)	-	-
Financial assets at fair value through other comprehensive income							
Equity investments without an active market	Price-book ratio	5%		-	-	20,665	(20,665)
"	Market liquidity discount rate	5%		-	-	20,665	(20,665)
"	Net asset value	5%		-	-	7,559	(7,559)

The favorable and unfavorable effects represent the changes in fair value, and fair value is based on a variety of unobservable inputs calculated using a valuation technique. The analysis above only reflects the effects of changes in a single input, and it does not include the inter-relationships with another input.

(ab) Management of financial risk

- (i) The Group is exposed to the extent of the risks arising from financial instruments as below:
 - 1) Credit risk
 - 2) Liquidity risk
 - 3) Market risk

Detailed information about exposure risk arising from the aforementioned risk was listed below. The Group's objective, policies and process for managing risks and methods used to measure the risk arising from financial instruments.

(ii) Risk management framework

The Board of Directors is responsible for overseeing the Group's risk management framework. The Group's internal auditor is responsible to identify and analyze the risks faced by the Group. The management of each division sets appropriate risk limits and controls, and monitor risks that follow the adherence to limits. The Group, through their training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Group's Audit Committee oversees how management monitors compliance with the Group's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Group. The Group's Audit Committee is assisted in its oversight role by the internal auditor. The internal auditor undertakes both regular and ad hoc reviews of risk management controls and the procedures, and the result of which are reported to the Audit Committee.

(iii) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to financial instruments fails to meet it contractual obligations that arises principally from the Group's accounts receivable, investments in securities and investments in bond.

1) Notes and accounts receivable

According to the credit policy, the Group analyze each new customer individually for their credit worthiness before granting the new customer standard payment terms and delivery terms. The Group's review includes external ratings of customers' financial information and bank references. Credit lines are established for each customer and reviewed periodically.

2) Investments

The credit risk exposure in the bank deposits, fixed income investments and equity instruments are measured and monitored by the Group's finance department. Since the Group's transactions resulted from the external parties with good credit standing and investment grade above financial institutions, publicly traded stock companies and unlisted companies with good reputation, there are no incompliance issues and therefore no significant credit risk.

3) Guarantees

According to the Group's policy, the Group can only provide guarantees which are listed under the regulation. The Group did not provide any guarantee not listed under the regulation as of December 31, 2019 and 2018.

(iv) Liquidity risk

Liquidity risk is a risk that the Group will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Group's approach to managing liquidity is to ensure, as far as possible, that it always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation.

The Group's financial department monitors cash flow requirements and optimizing its cash return on investments. The Group aims to maintain the level of its cash and cash equivalents at an amount in excess of expected cash flows on financial liabilities (other than trade payables) over the succeeding one year. The Group also monitors the level of expected cash outflows on account and other payables. This excludes the potential impact of extreme circumstances that cannot reasonably be predicted, such as natural disasters. As of December 31, 2019, the Group has unused bank credit lines for short-term borrowings, the unused bank credit lines for short-term borrowings and long-term bank borrowings amounted to \$1,153,882 thousand, \$3,276,609 thousand and \$9,221,400 thousand, respectively.

(v) Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices, which will affect the Group's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return.

The Group is exposed to currency risk on sales, purchases and borrowings that are denominated in a currency other than the respective functional currencies of the Group's entities, primarily the New Taiwan Dollars (NTD), US Dollars (USD) and Chinese Yen (RMB).

The policy of response to currency risk:

- 1) The Group reserves the foreign currency position arising from sales appropriately to remit the foreign currency expenditures and then meets the natural hedge.
- 2) The Group uses foreign currency borrowings and forward exchange contracts to hedge the remaining nature of currency risk arising from the netting of foreign currency accounts receivable and accounts payable.
- 3) The Group manages the currency risk and then determines the timing of exchanging the foreign currency through collecting the foreign currency information. It also stays in contact with the foreign currency department to control the foreign currency trend and market information.

(ac) Capital management

The Board of Directors' policy is to maintain a strong capital base to maintain the confidence of investors, creditors and market, and to sustain future development of the business. For the goal of business sustainability, the Group monitors the expansion plan as well as the level of dividends to ordinary shareholders.

(Continued)

For the years ended December 31, 2019 and 2018, the Group's return on common equity was 16.26% and 12.27%, respectively. The Group's debt ratio at the reporting date were as follows:

	December 31,	December 31,
	2019	2018
Debt ratio	29.17 %	27.79 %

As of December 31, 2019, there were no changes in the Group's approach to capital management.

(ad) Financing activity

Reconciliation of liabilities arising from financing activities were as follows:

			Cash flows			Non	_			
	Janu	uary 1, 2019	Proceeds from long- term debt	Repay of long debt an liabil	term d lease	Others	Interest expense	Others	Amortization of arranger for of syndicated loan	ee
Long-term borrowings	\$	5,802,600	5,282,865	(5,2	91,600)	-	-	(13,450)	7,71	0 5,788,125
Guarantee deposit received		143,068	-	-		(17,457)	-	-	-	125,611
Lease liabilities		290,061	-	(68,555)	(1,462)	12,044	137,239		369,327
Total liabilities from financing activity	s	6,235,729	5,282,865	(5,3	60,155)	(18,919)	12,044	123,789	7,71	6,283,063
						flows		cha: Amortiz		
	Jan	uary 1, 2018	Proceeds long-term			ments of erm debt	Others	arrange syndicat		ecember 31, 2018
Long-term borrowings	\$	6,257,536		391,000		(5,346,025)	-		89	5,802,600
Guarantee deposit received		143,685					(617)		143,068
Total liabilities from financing activity	\$	6,401,221	4,8	391,000		(5,346,025)	(617)	89	5,945,668

(7) Related-party transactions:

(a) Names and relationship with related parties

The followings are entities that have had transactions with related party during the periods covered in the consolidated financial statements:

Name of related party	Relationship with the Group
Jiangsu CM/ Chainwin Agriculture Development Co., Ltd. (Note 1)	Associates
Winresp INC. (Note 2)	Associates
Chainwin i-Management (Shanghai) Co., Ltd. Huaian Branch.	Other related parties
Chainwin i-Management (Huaian) Co., Ltd.	Other related parties
Chainwin i-Management Co., Ltd.	Other related parties
Ningbo Winresp New Materials Co., Ltd. (Note 2)	Other related parties
Taoyuan i-Fare Charity Foundation	Other related parties
ITEQ Corporation (Note 3)	Other related parties

- Note 1: The shareholders' meeting of Jiangsu CM/ Merit Agriculture Development Co., Ltd. had approved and decided to rename to Jiangsu CM/ Chainwin Agriculture Development Co., Ltd. on June 20, 2019.
- Note 2: The Company has lost the control over Winresp INC. since December, 2019. Therefore, it was not related-party of the Group.
- Note 3: In July 2019, the Company's chairman of Board of Directors has been elected as the ITEQ Corporation's chairman of Board of Directors, and therefore ITEQ Corporation has become the Group's other related parties since July 2019.
- (b) Significant transactions with related parties
 - (i) Loans to related parties:

For the year ended December 31, 2018, Chainwin Cayman provided an unsecured loan to its associates, Jiangsu CM/ Chainwin Agriculture Development Co., Ltd. Interest revenue arising from aforementioned transaction was amounting to US\$30 thousand (NT\$892 thousand). The aforementioned interest had been received. There was no such transaction for the year ended December 31, 2019.

(ii) Purchases

The amounts of significant purchases by the Group from related parties were as follows:

	_	2019		2018
Other related parties	\$		3,637	786

The terms and pricing of purchase transactions with related parties were not significantly different from those offered by other vendors.

(iii) Operating expenses

The amounts of operating expenses by the Group from related parties were as follows:

	 2019	2018
Other related parties	\$ 1,000	

(iv) Guarantee

For the years ended December 31, 2019, and 2018, Chainwin Cayman had provided a guarantee for loans amounting to US\$7,350 thousand (NT\$220,353 thousand and NT\$225,792 thousand, respectively) to its associate, Jiangsu CM/ Chainwin Agriculture Development Co., Ltd.

(v) Property transactions

- i) The prepayment, arising from that Chainwin Cayman purchased intelligent farming management system from its other related parties, Chainwin i-Management Co., Ltd., was amounting to US\$526 thousand (NT\$15,777 thousand) for the year ended December 31, 2019. There was no such transaction for the year ended December 31, 2018.
- ii) Chainwin Cayman purchased property, plant and equipment from its other related parties, Ningbo Winresp New Materials Co., Ltd., for the year ended December 31, 2019, amounting to RMB 3,444 thousand (NT\$15,552 thousand). There was no such transaction for the year ended December 31, 2018.
- iii) Chainwin Cayman purchased other equipment from its other related parties, Chainwin i-Management (Huaian) Co., Ltd., for the year ended December 31, 2019, amounting to RMB 29 thousand (NT\$132 thousand). There was no such transaction for the year ended December 31, 2018.
- iv) The prepayment due to property transactions were as follows:

		Dec	ember 31,	December 31,
Account	Category		2019	2018
Prepayments for business facilities	Associates	\$		21,617
Other non-current assets	Other related parties	\$	15,777	-

(vi) Leases

The Group leased the office and factories to its other related party, ITEQ Corporation, and the rent income received monthly is based on the nearby office and factories rental rates. The amount of rent income is \$14,423 thousand for the year ended December 31, 2019. The preceding rent payment has been received.

(c) Transactions with key management personnel

Key management personnel compensation was comprised as below:

		2019	2018
Short-term employee benefits	\$	492,963	396,899
Post-employment benefits	<u> </u>	821	802
	\$_	493,784	397,701

(8) Pledged assets:

The carrying amount of pledged assets were as follows:

Pledged assets	Pledged to secure	De	cember 31, 2019	December 31, 2018
Other non-current assets	Bank deposits - reserve accounts	\$	4,197	-
Other non-current assets	Gas deposits		4,700	4,700
Other non-current assets	Customs guarantee		20,242	20,050
Other non-current assets	Government subsidy deposits		-	4,300
Other non-current assets	Plant deposits		12,441	12,749
Property, plant and equipment	Long-term borrowings		2,382,554	2,759,181
Investment property	Long-term borrowings		336,574	351,631
Total		\$	2,760,708	3,152,611

(9) Commitments and contingencies:

(a) Contingencies: None.

(b) Commitment:

(i) The unrecognized commitment of acquisition of plant expansion and machinery equipment were as follows:

		December 31, 2019	December 31, 2018
	The unrecognized amount	\$3,353,094	4,726,547
		December 31, 2019	December 31, 2018
(ii)	The unused letters of credit	\$ <u>206,008</u>	70,543

(10) Losses due to major disasters: None.

(11) Subsequent events:

The Company's subsidiary, Jiangsu Win Yield Agriculture Development Co. Ltd., entered into a contract with Jiangsu Nantong Sanjian Construction Group Co., Ltd. For construction, with the amount of RMB 342,511 thousand on January 10, 2020.

(12) Others:

The followings were the summary statement of employee benefits, depreciation and amortization expenses by function:

		2019			2018	
	Classified as operating costs	Classified as operating expenses	Total	Classified as operating costs	Classified as operating expenses	Total
Employee benefits						
Salaries	2,424,222	1,082,537	3,506,759	2,006,133	902,528	2,908,661
Labor and health insurance	179,353	55,141	234,494	168,800	44,871	213,671
Pension	79,483	28,745	108,228	76,207	23,711	99,918
Director remuneration	-	107,176	107,176	-	74,510	74,510
Others	127,652	51,197	178,849	62,014	15,454	77,468
Depreciation	3,012,526	335,528	3,348,054	2,922,094	236,456	3,158,550
Amortization	18,578	48,415	66,993	18,131	45,457	63,588

(13) Other disclosures:

(a) Information on significant transactions:

The following were the information on significant transactions required by the "Regulations Governing the Preparation of Financial Reports by Securities Issuers" for the Group for the year ended December 31, 2019:

- (i) Loans to other parties: None.
- (ii) Guarantees and endorsements for other parties: Please refer to schedule A.
- (iii) Securities held as of December 31, 2019 (excluding investment in subsidiaries, associates and joint ventures): Please refer to schedule B.
- (iv) Individual securities acquired or disposed of with accumulated amount exceeding the lower of NT\$300 million or 20% of the Company's paid-in capital: Please refer to schedule C.
- (v) Information on acquisition of real estate with purchase amount exceeding the lower of NT\$300 million or 20% of the Company's paid-in capital: Please refer to schedule D.
- (vi) Information on disposal of real estate with amounts exceeding the lower of NT\$300 million or 20% of the Company's paid-in capital: None.
- (vii) Information regarding related-parties purchases and/or sales with amounts exceeding the lower of NT\$100 million or 20% of the Company's paid-in capital: Please refer to schedule E.
- (viii) Information regarding receivables from related-parties exceeding the lower of NT\$100 million or 20% of the Company's paid-in capital: None.
- (ix) Information regarding trading in derivative financial instruments: None.
- (x) Business relationships and significant intercompany transactions: Please refer to schedule F.

- (b) Information on investments: Please refer to schedule G.
- (c) Information on investment in Mainland China: Please refer to schedule H.

(14) Segment information:

- (a) The Group's reportable segment is the foundry segment, and agriculture technology segment. The segment engages separately in researching, developing, manufacturing, selling of GaAs wafers and developing hog farming technology and trading, etc., respectively.
 - Other operating segments are mainly engaged in investment activities and gene chip and testing, which do not exceed the quantitative thresholds to be reported.
- (b) Operating segment profit or loss (includes reportable segment revenue and expenses), segment assets, segment liabilities, and their measurement and reconciliations for the years ended December 31, 2019 and 2018, the reportable amount is similar to that in the report used by the operating decision maker and the operating segment accounting policies are similar to the ones described in Note 4 "significant accounting policies" were as follows:

		Agriculture		Reconciliation and	
2019	Foundry	technology	Others	elimination	Total
Revenue:					
Revenue from external customers	\$ <u>20,875,694</u>	428,403	73,627		21,377,724
Interest expenses	\$ 31,579	18,667	453	-	50,699
Depreciation and amortization	\$ 3,342,607	53,287	15,681	3,472	3,415,047
Shares of losses of associates and joint ventures accounted for using equity method	\$ (1,282)	(199,956)	1,382		(199,856)
Reportable segment profit or loss	\$ 5,805,224	(155,872)	(87,328)	(3,472)	5,558,552
Assets:	<u> </u>	(133,072)	(67,526)	(3,472)	3,330,332
Capital expenditures in noncurrent assets	\$ 3,776,853	1,634,368	27,834		5,439,055
				Reconciliation	
		Agriculture		and	
2018	Foundry	Agriculture technology	Others		Total
Revenue:		technology	Others	and	
Revenue: Revenue from external customers	\$ 16,932,784	0		and	17,310,716
Revenue: Revenue from external customers Interest expenses	\$ <u>16,932,784</u> \$ <u>22,456</u>	353,128	Others 24,804	and elimination	17,310,716 22,456
Revenue: Revenue from external customers Interest expenses Depreciation and amortization Shares of losses of associates and joint ventures accounted for using equity	\$ 16,932,784 \$ 22,456 \$ 3,174,490	353,128 - 41,636	24,804 - 3,161	and	17,310,716 22,456 3,222,138
Revenue: Revenue from external customers Interest expenses Depreciation and amortization Shares of losses of associates and joint ventures accounted for using equity method	\$\frac{16,932,784}{\\$ \frac{22,456}{\\$ 3,174,490}}\$	353,128 - 41,636 (92,115)	Others 24,804 - 3,161 (8,021)	and elimination	17,310,716 22,456 3,222,138 (117,837)
Revenue: Revenue from external customers Interest expenses Depreciation and amortization Shares of losses of associates and joint ventures accounted for using equity	\$ 16,932,784 \$ 22,456 \$ 3,174,490	353,128 - 41,636	24,804 - 3,161	and elimination	17,310,716 22,456 3,222,138

The segment profit or loss, assets and liabilities of the operating segment above were consistent with the related accounts shown in the consolidated balance sheets and consolidated statements of comprehensive income of the Group.

(c) Segment information by products and services

The information from the product and the service segment coincides with the administrative segment, and its revenue from external customers was disclosed in Note 14(b).

(d) Geographic information

In presenting information on the basis of geography, segment revenue is based on the geographical location of customers, and segment assets are based on the geographical location of the assets.

Revenue from external customers for the years ended December 31, 2019 and 2018 were as follows:

Area	2019	2018	
External Customers:	·		
America	\$ 3,998,159	4,169,406	
Asia	14,525,043	10,369,004	
Taiwan	1,928,520	2,131,793	
Europe	926,002	640,513	
Total	\$ <u>21,377,724</u>	17,310,716	
Area	December 31, 2019	December 31, 2018	
Area Non-current Assets:		· · · · · · · · · · · · · · · · · · ·	
		· · · · · · · · · · · · · · · · · · ·	
Non-current Assets:	2019	2018	
Non-current Assets: Taiwan	2019 \$ 19,487,236	2018 18,991,047	

Non-current assets include property, plant and equipment, investment property, right-of-use assets, intangible assets and prepayments for business facilities; not including financial instruments, goodwill and deferred tax assets.

(e) Major customers

For the years ended December 31, 2019 and 2018, sales to customers greater than 10% of net revenue were as follows:

		201	19	20	18
		Net revenue amount	Percentage of net revenue (%)	Net revenue amount	Percentage of net revenue (%)
Operating revenue of the Group-A company	\$	3,032,337	14	2,788,677	16
Operating revenue of the Group-B company		2,698,003	13	140,446	1
Operating revenue of the Group-C company		2,011,520	10	1,969,031	11
Operating revenue of the Group-D company	_	2,003,256	9	2,875,850	17
	\$_	9,745,116	46	7,774,004	45

Schedule A Guarantees and endorsements for other parties:

-	-	, ,	-	(In the	(In thousands of Dollars)
gualantee and endorseine	Highest Balance of balance for guarantees and and Actual usage	Property Ratio of accumulated amounts pledged for of guarantees and		Parent company endorsements/	Subsidiary Endorsements/ endorsements/
Name Com (Noi	Company for a specific characteristic character	endorsements net worth of the latest (Amount) financial statements		subsidiary I	guarantees to luc companies in parent company mainland China
Chainwin Biotech and Agrotech (Cayman	2 14,828,734 495,083 495,083 -		1.67% Net equity 50%	¥	
Islands) Co., Ltd.			14,828,734	_	
iangsu Chainwin Kang Yuan Agricultural	14,828,734 1,100,183 1,100,183 449,700	•	3.71% Net equity 50%	Y	Υ .
Development Co., Ltd.	_		14,828,734	_	
iangsu Win Yield Agriculture Development	14,828,734 1,650,276 1,650,276 -		5.56% Net equity 50%	7	Υ .
Co., Ltd.			14,828,734		
Jiangsu Win Shine Agriculture Development	14,828,734 550,092 550,092 -	•	1.85% Net equity 50%	Y	Υ .
Co., Ltd. (Note 7)			14,828,734	_	
iangsu Chainwin Agriculture and Animal	14,828,734 1,100,183 1,100,183 149,900		3.71% Net equity 50%	¥	. У
Fechnology Co., Ltd.			14,828,734	_	
Jiansu Merit/ CM Agriculture Development	14,828,734 1,100,183 1,100,183 -	•	3.71% Net equity 50%	Y	Υ .
Co., Ltd.			14,828,734	_	
Chainwin Biotech and Agrotech Jiangsu CM/ Chainwin Agriculture Development 6			5.38% Net equity 50%		Υ .
Co., Ltd. (Note 6)	1,228,154 220,353 220,353 189,856		2 046 923		

Note 1: Company numbering as follows:

Investee starts from 1

1. Ordinary business relationship. Note 2: Relationship with the Company

2. An entity, directly and indirectly, owned more than 50% voting shares of a guarantor.

3. A guarantor, directly and indirectly, owned more than 50% voting shares of an entity.

4. An entity, directly and indirectly, owned more than 90% voting shares of a guarantor.

5. Fulfillment of contractual obligations by providing mutual endorsements and guarantees for peer or joint builders in order to undertake a construction project.

6. An entity that is guaranteed and endorsed by all capital contributing shareholders in proportion to their shareholding percentages.

7. Peer engaged in the escrow of the sales contract on pre-sale house under the Consumer Protection Act.

Note 3: WIN Semiconductors Corp.'s operating procedures of guarantee were as follows:

1. The guarantees and endorsements limit provided by WIN Semiconductors Corp. to other parties should not exceed 50% of its equity based on the most recent audited or reviewed financial statement by a certified accountant. The individual guarantee amount should not exceed 50% of its equity based on the most recent audited or reviewed financial statement by a certified accountant.

2. The guarantees and endorsements limit provided by WIN Semiconductors Corp. and its subsidiaries to other parties should not exceed 50% of its equity based on the most recent audited or reviewed financial statement by a certified accountant. The individual guarantee amount should not exceed 50% of its equity based on the most recent audited or reviewed financial statement by a certified accountant. 3. Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd., Jiangsu Chainwin Kang Yuan Agricultural Development Co., Jiangsu Win Yield Agriculture Development Co., Ltd., and Jiangsu Win Shine Agriculture Development Co., Ltd., Jiangsu Chairwin Agriculture and Animal Technology Co., Ltd. and Jiansu Merit/ CM Agriculture Development Co., Ltd. (collectively referred to as "the Borrower") had been approved a total maximum credit line of US\$20,000 thousand, US\$30,000 thousand, US\$30,000 thousand, US\$30,000 thousand, US\$30,000 thousand, LS\$30,000 thousand, respectively.

Note 4: The guarantees and endorsements limit provided by Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd. to a particular single party and to other parties should not exceed 30% and 50%, respectively, of its equity based on

the most recent audited or reviewed financial statement by a certified accountant.

Note 6: The shareholders' meeting of Jiangsu CM/ Merit Agriculture Development Co., Ltd. had approved and decided to rename to Jiangsu CM/ Chainwin Agriculture Development Co., Ltd. on June 20, 2019.

Note 5: The aforementioned amount was translated at the exchange rate on the balance sheet date from USD to NTD and RMB to USD for NTD 29.98 and USD 0.1436, respectively.

Note 7: Jiangsu Win Shine Agriculture Development Co., Ltd. was incorporated on April 4, 2019. As of December 31, 2019, the capital injection had not been made yet.

Schedule B Securities held as of December 31, 2019 (excluding investment in subsidiaries, associates and joint ventures):

						(In	(In thousands of New Taiwan Dollars)	New Taiwan	Dollars)
	Language Control	Dalotionchin			Ending balance	balance		Highest	
Name of holder	Caregory and name of security	with the company	Account title	Shares/ Units (in thousands)	Carrying value	Percentage of ownership (%)	Fair value	percentage of ownership (%)	Remark
The Company	Advanced Wireless Semiconductor Company/ Stock	None	Current financial assets at fair value through profit or loss	1,557	154,921	1.08	154,921	2.98	
WIN Venture Capital Corp.	Sercomn Corporation/ Stock	"	11	662	51,438	0.27	51,438	0.50	
, , ,	Allianz Global Investors Taiwan Money Market Fund	"	"	10,926	137,442	,	137,442	,	
"	Capital Money Market Fund	"	"	10,066	163,048		163,048	,	
	•				506,849		506,849		
The Company	MagiCapital Fund II L.P.	"	Non-current financial assets at fair value	,	217,722	5.81	217,722	5.81	
			through profit or loss						
"	CDIB Capital Growth Partners L.P.	"	"	1	77,842	3.30	77,842	3.30	
"	Fuh Hwa Oriental Fund	"	"	15,000	38,160		38,160	,	
"	Fuh Hwa Smart Energy Fund	11	"	12,000	89,664		89,664	,	
"	LeaSun Winion L.P.	"	"	,	29,968	12.47	29,968	14.25	
"	NFC Fund II L.P.	"	"	1	100,546	19.41	100,546	19.41	
"	Foryou Venture Capital L.P.	"	"	1	11,902	5.77	11,902	5.77	
					565,804		565,804		
"	ITEQ CORPORATION/ Stock	Other related parties	Non-current financial assets at fair value	24,670	3,145,387	8.14	3,145,387	8.14	
			through other comprehensive income						
"	Inventec Solar Energy Corporation/ Stock	None	"	34,000	118,581	10.51	118,581	10.51	
"	MagiCap Venture Capital Co., Ltd./ Preferred Stock A	"	"	606	131,492	18.28	131,492	18.28	
"	CDIB Capital Creative Industries Limited / Stock	11	"	4,333	44,633	3.33	44,633	3.33	
"	New Future Capital Co., Ltd./ Stock	"	"	10,000	90,800	15.87	90,800	15.87	
"	Grand Fortune Venture Corp./ Stock	"	"	5,000	54,550	6.87	54,550	6.87	
Win Semiconductors	Broadcom Ltd./ Stock	Client	"	75	710,571	0.02	710,571	0.02	
Cayman Islands Co., Ltd.									
"	Anokiwave Inc./ Series B Preferred Stock	#	"	1,264	202,581	7.93	202,581	7.93	
WIN Venture Capital Corp.	MOAI Electronics Corporation/ Stock	None	"	06	,	0.32		1.08	
"	Merit Biotech INC./ Stock	"	"	1,320	,	2.93	•	2.93	(Note)
"	Winresp INC./ Stock	"	"	2,500	34,525	18.26	34,525	18.52	
Chainwin Biotech and	Formosa Fortune Group Cayman Islands Co., Ltd.	"	"	12	23,085	4.78	23,085	4.78	
Agrotech (Cayman Islands)	/ Stock								
Co., Ltd.						•			
				•	4,556,205		4,556,205		

Note: The Board of Directors of Merit Biotech INC. had resolved to dissolve and liquidate the company in 2017. As of December 31, 2019, the company is still within the period of liquidation.

Schedule C Individual securities acquired or disposed of with accumulated amount exceeding the lower of NT\$300 million or 20% of the Company's paid in capital:

					o constant	Dunid	00000		00		(In thousands of Ivew Laiwan Dollars)	INCW Laim	din Dollars)
		Name of	Relationshin	4	Beginning	Purchases	ases	•	Sales	es		En	Ending
	Account name	counter-party	, AM	0,7	Amount	Shares (in	Amount	Shares (in	Drice	Cost	Gain (loss)	Shares (in	Amount
		commer banks	a mir and combanit	thousands)	THORITO	thousands)	WINGING.	thousands)	2011	1603	on disposal	thousands)	all out of
Invest	Win Semiconductors Cayman Islands Investments accounted for using equity method		Subsidiary	114,000	3,503,656	53,000	1,631,490			-	-	167,000	5,216,293
													(Note)
	"	'	"	24,650	304,150	20,000	300,000		,	,	,	44,650	480,908
													(Note)
Non-curren	Non-current financial assets at fair value through	1		15,725	157,246	,	,	15,725	366,621	157,246	209,375		
profit or loss	SS												
Investment	investments accounted for using equity method	,	Investment	58,554	3,584,889	26,500	1,635,070	,	,	,	,	85,054	4,195,630
			through subsidiary										(Note)
	"	,	"		300,749		375,420		,	,			625,067
													(Note)
	"		"	,	959,571		404,180						1,233,161
													(Note)

Note: The amount of ending balance was calculated using the equity method. The amount of the transaction and the ending balance had been offset in the consolidated financial statements.

Schedule D Information on acquisition of real estate with purchase amount exceeding the lower of NT\$300 million or 20% of the Company's paid in capital:

an Dollars)			Others			None				None			
(In thousands of New Taiwan Dollars)			determining pognicition	acquisition		Operating	barbose			Operating	burpose		
thousands o	Poforonoe	College	Jor	uctermining	NI C	Price	comparison	and price	negotiation	Price	comparison	and price	negotiation
(In 1	arty,	mation		Amount		N/A				N/A			
	ty is a related pa	s transfer infor	Doto of		Hallster	N/A				N/A			
	If the counter party is a related party,	disclose the previous transfer information	Relationship	with the	company	N/A				N/A			
)JI			Owner		N/A				N/A			
		Relationship	with the	company		-							
			Counter-party			Jiangsu Nantong	Sanjian Construction	Group Co., Ltd.		Jiangsu Nantong	Sanjian Construction	Group Co., Ltd.	
			Status of payment			617,213 As of December 31, 2019, the Jiangsu Nantong	price paid \$592,208 thousand. Sanjian Construction			772,168 As of December 31, 2019, the Jiangsu Nantong	price paid \$310,589 thousand. Sanjian Construction		
		E	ransaction	amount		617,213				772,168	,14		
			Transaction Date			2018/10/25				2018/11/20			
			Name of Property			Factory buildings				Factory buildings			
		9	Name of	Company		Jiangsu Chainwin Kang Yuan	Agricultural Development Co., Ltd.			Jiangsu Chainwin Agriculture	and Animal Technology Co., Ltd.		

Schedule E Information regarding related parties purchases and/or sales with amounts exceeding the lower of NT\$100 million or 20% of the Company's paid in capital:

(In thousands of New Taiwan Dollars) Remark (Note) (Note) %0 %0 Notes/Accounts receivable (payable) notes/ accounts receivable (payable) Percentage of total Ending balance Payment terms Transactions with terms different from others Unit price Percentage of the purchases/ Payment terms sales 1~2 Months 1~2 Months 100% %9 Transaction details (1,297,921)1,297,921 Amount Purchase/ Purchase Sale relationship Nature of Subsidiary Parent Cayman Islands Co., Ltd. Win Semiconductors Related party The Company

Note: The amounts of the transaction and the ending balance had been offset in the consolidated financial statements.

Cayman Islands Co., Ltd.

Win Semiconductors

The Company

Name of company

Schedule F Business relationships and significant inter company transactions:

						(In thous	(In thousands of New Taiwan Dollars)
N			Nature of		In	Intercompany transactions	sactions
(Note 1)	Name of Company	Name of Counter-party	relationship (Note 2)	Account name Amount Trading terms	Amount	Trading terms	Percentage of the consolidated net revenue or total assets
0	The Company	Win Semiconductors Cayman Islands Co., Ltd.	1	Operating	1,297,921	Note 3	6.07%
				revenue			
1	Win Semiconductors	The Company	2	Operating	1,297,921	"	6.07%
	Cayman Islands Co., Ltd.			costs			
0	The Company	WIN SEMI. USA, INC.	1	Operating	78,588		0.37%
				expense			
2	WIN SEMI. USA, INC. The Company	The Company	2	Operating	78,588	"	0.37%
	_			elide/yen			

Note 1: Company numbering as follows:

Parent company -0

Subsidiary starts from 1

Note 2: The numbering of the relationship between transaction parties as follows:

Parent company to subsidiary -1

Subsidiary to parent company-2

Note 3: There is no significant difference from transaction terms with non-related parties.

Schedule G Information on investments:

The following is the information on investees for the year ended December 31, 2019 (excluding information on investees in Mainland China):

Main Orioinal investment amount	-		Original investment amount	ment amount		The end	The ending balance at this year	s vear	Highest	Net income	,	
and The conding helenge	hisinesses and The median belongs	The anding helping	<u>ہ</u> ا	The on ding holongs	- 1	Sharae	Dercentage of	Carming	nercentage of	(losses)	Investment	Remark
Location	products at this year	I he ending balance at this year		I he ending balanc at the last year	ပ	Snares (in thousands)	rercentage or ownership	Carrying value	ownership (%)	of investee	income (losses)	Nelliain
California USA Marketing 8,203	8,203	8,203		3	8,203	1,000	100.00%	406	100.00%	(10,968)	(10,968)	(Note 1)
Win Semiconductors Cayman Cayman Selling of GaAs wafers 5,135,146 3,50	Selling of GaAs wafers 5,135,146	5,135,146		3,50	3,503,656	167,000	100.00%	5,216,293	100.00%	(372,863)	(372,863)	(Note 1)
Islands												
WIN Venture Capital Corp. Taiwan Investment activities 500,000	Investment activities	_	200,000		250,000	50,000	100.00%	456,661	100.00%	17,086	17,086	(Note 1)
Phalanx Biotech Group, Inc. Taiwan Researching, manufacturing and selling of high 604,150	Researching, manufacturing and selling of high		604,150		304,150	44,650	54.48%	480,908	54.48%	(109,652)	(43,737)	(Note 1)
density gene chips and testing service	density gene chips and testing service	density gene chips and testing service										
CSDC Private Limited Singapore Development and manufacturing of compound -		Development and manufacturing of compound				•	'	,	25.00%	•	'	(Note 3)
semiconductors technologies	semiconductors technologies	semiconductors technologies										
WIN Chance Investment Corp. Taiwan Investment activities 10,000	Investment activities		10,000			1,000.00	100.00%	996'6	100.00%	(34)	(34)	(Note 1)
WIN Earn Investment Corp. Taiwan Investment activities 10,000	Investment activities		10,000			1,000.00	100.00%	996'6	100.00%	(34)	(34)	(Note 1)
Phalanx Biotech Group, Inc. Taiwan Researching, manufacturing and selling of high 39,600	Researching, manufacturing and selling of high		39,600		39,600	3,600	4.39%	56,969	5.82%	(109,652)	(Note 2)	(Note 1)
density gene chips and testing service	density gene chips and testing service	density gene chips and testing service										
Winresp INC. Taiwan Developing and selling of water treatment -		Developing and selling of water treatment	í		40,000		'	1	18.52%	(25,408)	(Note 2)	(Note 4)
		systemand wholesaling of medical appliances										
Rainbow Star Group Limited British Virgin Investment activities 62,920	Investment activities		62,920		62,920	38	49.30%	60,063	49.30%	(2,601)	(Note 2)	
Islands	Islands											
Chainwin Biotech and Agrotech Cayman Investment activities 5,219,959	Investment activities 5,219,959	5,219,959			3,584,889	85,054	%08.30%	4,195,630	96.30%	(371,223)	(Note 2)	(Note 1)
(Cayman Islands) Co., Ltd. Islands	Islands											
Phalanx Biotech Limited Hong Kong Investment activities 8,784	Investment activities		8,784		8,784	1	100.00%	7,852	100.00%	31,702	(Note 2)	(Note 1)
PhalanxBio, Inc. USA Selling of high density gene chip and test service 208,110	Selling of high density gene chip and test service		208,110		208,110	2,550	100.00%	(1,597)	100.00%	(345)	(Note 2)	(Note 1)

Note 1: The amount of the transaction had been offset in the consolidated financial statements.

Note 2: The shares of profits (losses) of the investee company is not reflected herein as such amount is already included in the share of profits (losses) of the investor company.

Note 3: The shares of CSDC Private Limited has been sold in November, 2019.

Note 4: The Company has lost the significant influence on Winresp INC, since December, 2019. Therefore, the Company has stopped using the equity method accounted for Winresp INC, and transferred to non-current financial asset at fair value through other comprehensive income.

Schedule H Information on investment in Mainland China:

(i) The names of investees in Mainland China, the main businesses and products, and other information:

urs)			ark			e 9)		e 9)		e 7)		e 9)		e 8)		e 9)		e 9)		e 9)	
fDolla			Remark			(Note 9)		(Note 9)		(Note 7)		(Note 9)		(Note 8)		(Note 9)		(Note 9)		(Note 9)	
(In thousands of Dollars)	Accumulated	remittance of	eamings in current	canno in estima	period	•		•				•				•					
(J	Carrying value	at the end	of this year		(Note 1)	1,233,161	41,133)	625,067	20,849)	472,528	15,761)	443,446	14,791)	•		55,194	1,841)	149,887	5,000)	7,852	1,822)
	Carr	a	Jo		0	0	(2,451)) (USD	_	(OSD	_	(OSD		(OSD				(OSD		C OSD		7,181) (RMB
		Investment	income (losses)	Note 3)(Note 5)	,	(74,726)	_	(1,207)	SD (44))	(199,956)	SD (6,480))	3,542	SD 105)	•		472	USD 16)	1,222	USD 37)	31,702	RMB 7,181
		Percentage	of i	ownership (1		96.30%	(USD	96.30%	(USD	47.19%	(USD	96.30%	(OSD	•		96.30%	(O	96.30%	<u>n</u>)	58.87%	<u> </u>
			. :			%0		%0		%6		%0		,		%0		%0		7%	
	Highest	percentage	ofownershin	or controls	(%)	%08.30%		%08.30%		47.19%		%08.30%				%08.30%		%08.30%		58.87%	
		Net income (losses) per of the investee of or			(74,726)	(2,451)	(1,207)	(44)	(408,074)	(13,225)	3,901	115)			472	16)	1,222	37)	31,702	7,181)	
				10			(USD		(USD		(USD		(nsd				(nsd		(OSD		300) (RMB
	Accumulated outflow	of investment from	Taiwan as of		December 31, 2019	1,309,536	42,471) (USD	653,305	21,046) (USD	951,961	30,905)	507,913	16,567)	149,664	4,872)	41,009	1,335)	155,300	5,000)	8,784	300)
	Accumul	of inves	Taiw		Decemb		(OSD		(OSD		(OSD		(OSD		(OSD		(OSD		(OSD		(OSD
		ws			Inflow			٠		٠		٠				•		٠		٠	
	Investment flows Outflow				tflow	404,180	13,000)	375,420	12,000)	248,320	8,000)	40,850		,		,		155,300	5,000)		
		П			On		(OSD		(OSD		(OSD								(OSD		
	Accumulated	outflow	of investment from	Taiwan at the	beginning of this year	905,356	29,471) (USD	277,885	9,046) (USD	703,641	22,905)	467,063	15,204)	149,664	4,872)	41,009	1,335)			8,784	300)
	Accu	8	of inves				(OSD		(OSD		(OSD		(OSD		(OSD		(OSD				(OSD
		Method	Jo	investment		(Note 1)		(Note 1)		(Note 1)		(Note 1)		(Note 1)		72,313 (Note 1)		(Note 1)		(Note 2)	
		Total amount	incanita	midna iii		1,363,751	RMB 302,232)	64,169	21,790)	1,710,498 (Note 1)	55,510)	466,944	15,200)			72,313	16,177)	155,300	5,000)	8,784	1,898)
	Total amount of paid in capita						(RMB		(OSD		(OSD		(OSD				(RMB		(OSD		(RMB
		Main businesses	and products	connoid num		Developing hog farming technology	and trading	Farm feed developing and trading		Developing hog farming technology	and trading	Developing hog farming technology	and trading	Developing hog farming technology	and trading	Developing hog farming technology	and trading	Developing hog farming technology	and trading	Onearray Biotech (Kunshan) Co., Ltd. Selling of high density gene chip and	test service
		Name of	investee	2000		Jiangsu Chainwin Kang Yuan	Agricultural Development Co., Ltd. and trading	Jiangsu Chainwin Agriculture and	Animal Technology Co., Ltd.	Jiangsu CM/ Chainwin Agriculture	Development Co., Ltd.	Jiansu Merit/ CM Agriculture	Development Co., Ltd.	Jiangsu Merit/ Cofcojoycome	Agriculture Development Co., Ltd.	Jiangsu Merit Runfu Agriculture	Development Co., Ltd.	Jiangsu Win Yield Agriculture	Development Co., Ltd.	Onearray Biotech (Kunshan) Co., Ltd.	

(ii) Limitation on investment in Mainland China:

11,505,115	(USD 155,309)	(USD 122,496) (USD	subsidiaries
917 509 71	4,656,168	3,777,472	The Company and
Upper Limit on Investment (Note 6)	Investment Amounts Authorized by Investment Commission, MOEA	Accumulated Investment in Mainland China at the end of this year (Note 8)	Investor Company Name
(In thousands of Dollars)			

Note 1: The Group invested in Mainland China companies through Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd., which is established in a third region.

Note 2: The Group invested in Mainland China companies through Phalanx Biotech Limited, which is established in a third region.

Note 3: The amount of net income (losses) was recognized based on the audit financial statements of the investee companies.

Note 4: Carrying value as of December 31, 2019 was with reference to the amount recognized by the investment through subsidiaries to subsidiaries established in a third region.

Note 5: Investment income (loss) recognized was translated into New Taiwan Dollars at the average exchange rate for the each month from January 1 to December 31, 2019.

Note 6: Amount of upper limit on investment was the higher between sixty percentage of total equity or total consolidated equity.

Note 7: The shareholders' meeting of Jiangsu CM/ Merit Agriculture Development Co., Ltd. had approved and decided to rename to Jiangsu CM/ Chainwin Agriculture Development Co., Ltd. on June 20, 2019.

Note 8: Jiansu Meriv Cofeojoycome Agriculture Development Co., Ltd. had been liquidated on January 25, 2019. However, according to the regulation of Investment Commission the remittance to Mainland China amounting to US\$4,872 thousand (NT\$149,664 thousand) was included in the accumulated investment account.

Note 9: The amount of the transaction and the ending balance had been offset in the consolidated financial statements.

(iii) Significant transactions: None

Stock Code:3105

WIN SEMICONDUCTORS CORP. AND SUBSIDIARIES

CONSOLIDATED FINANCIAL STATEMENTS

With Independent Auditors' Review Report For the Nine Months Ended September 30, 2020 and 2019

Address: No.69, Keji 7th Rd., Hwaya Technology Park, Guishan Dist., Taoyuan City, Taiwan

Telephone: 886-3-397-5999

The independent auditors' review report and the accompanying consolidated financial statements are the English translation of the Chinese version prepared and used in the Republic of China. If there is any conflict between, or any difference in the interpretation of the English and Chinese language independent auditors' review report and consolidated financial statements, the Chinese version shall prevail.

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Independent Auditors' Review Report

To the Board of Directors of WIN Semiconductors Corp.:

Introduction

We have reviewed the accompanying consolidated balance sheets of WIN Semiconductors Corp. and subsidiaries (the "Group") as of September 30, 2020 and 2019, and the related consolidated statements of comprehensive income for the three months and nine months ended September 30, 2020 and 2019, as well as the changes in equity and cash flows for the nine months ended September 30, 2020 and 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies. Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and International Accounting Standards ("IASs") 34, "Interim Financial Reporting" endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China. Our responsibility is to express a conclusion on the consolidated financial statements based on our reviews.

Scope of Review

Except as explained in the Basis for Qualified Conclusion paragraph, we conducted our reviews in accordance with Statement of Auditing Standards 65, "Review of Financial Information Performed by the Independent Auditor of the Entity". A review of the consolidated financial statements consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with the generally accepted auditing standards and consequently, does not enable us to obtain assurance that we would become aware of any significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Basis for Qualified Conclusion

As stated in Note 6(g), the other equity accounted investments of the Group's investments accounted for using the equity method of \$57,391 thousand and \$100,827 thousand as of September 30, 2020 and 2019, respectively; and the shares of gains (losses) of associates and joint ventures accounted for using the equity method of \$(327) thousand, \$(1,703) thousand, \$(931) thousand and \$1,116 thousand for the three months and nine months ended September 30, 2020 and 2019, respectively, were recognized solely in the financial statements prepared by these investee companies, but not reviewed by independent auditors.

Qualified Conclusion

Except for the adjustments, if any, as might have been determined to be necessary had the financial statements of certain equity accounted investee companies described in the Basis for Qualified Conclusion paragraph above been reviewed by independent auditors, based on our reviews, nothing has come to our attention that causes us to believe that the accompanying consolidated financial statements do not present fairly, in all material respects, the consolidated financial position of the Group as of September 30, 2020 and 2019, and of its consolidated financial performance for the three months and nine months ended September 30, 2020 and 2019, and its consolidated cash flows for the nine months ended September 30, 2020 and 2019 in accordance with the Regulations Governing the Preparation of Financial Reports by Securities Issuers and IASs 34, "Interim Financial Reporting" endorsed and issued into effect by the Financial Supervisory Commission of the Republic of China.

The engagement partners on the reviews resulting in this independent auditors' review report are Chia-Chien Tang and Ming-Hung Huang.

KPMG

Taipei, Taiwan (The Republic of China) November 6, 2020

Notes to Readers

The accompanying consolidated financial statements are intended only to present the consolidated statement of financial position, financial performance and cash flows in accordance with the accounting principles and practices generally accepted in the Republic of China and not those of any other jurisdictions. The standards, procedures and practices to review such consolidated financial statements are those generally accepted and applied in the Republic of China.

The independent auditors' review report and the accompanying consolidated financial statements are the English translation of the Chinese version prepared and used in the Republic of China. If there is any conflict between, or any difference in the interpretation of the English and Chinese language independent auditors' review report and consolidated financial statements, the Chinese version shall prevail.

(English Translation of Consolidated Financial Statements Originally Issued in Chinese)

Reviewed only, not audited in accordance with the generally accepted auditing standards as of September 30, 2020 and 2019

WIN Semiconductors Corp. and Subsidiaries

Consolidated Balance Sheets

September 30, 2020, December 31, and September 30, 2019

(Expressed in Thousands of New Taiwan Dollars)

0. 2019	%	68 1	48 4	30 7	- 96	51 -	93 12		20 16	04 1	96 1	20 18	13 30	64 10	12 23	96 29		75 70		52 70					<u>65</u> <u>100</u>
Sentember 30, 2019	Amount	185,768	1,753,748	2,809,030	75,596	146,551	4,970,693		6,520,520	306,104	226,196	7,052,820	12,023,513	4,240,564	9,249,412	11,643,096	3,293,703	28,426,775	129,777	28,556,552					40,580,065
	i i .	-	4	6		i	4		14	_	ij	15	29	10	22	32	7	71		71					100
ecember 31, 20	Amount	260,426	1,826,214	3,657,585	68,740	162,735	5,975,700		5,788,125	300,587	222,158	6,310,870	12,286,570	4,240,564	9,244,308	13,399,189	2,773,407	29,657,468	182,064	29,839,532					42,126,102
120 D	%	-	4	7		i	12		21	_	ď	22	34	~	19	31	9	64	2	99					100
September 30, 2020 December 31, 2019	Amount	\$ 264,021	1,821,083	3,399,174	83,443	180,827	5,748,548		10,432,675	357,452	224,224	11,014,351	16,762,899	4,240,564	9,268,720	15,693,380	2,797,826	32,000,490	937,216	32,937,706					\$ 49,700,605
	Liabilities and Equity Current liabilities:	Current contract liabilities (Note 6(w))	Notes and accounts payable	Other payables (Note $6(x)$)	Current lease liabilities (Notes 6(p) and 6(ac))	Other current liabilities (Notes 6(ac) and 7)	Total current liabilities	Non-current liabilities:	Long-term borrowings (Notes 6(o), 6(ac) and 8)	Non-current lease liabilities (Notes 6(p) and 6(ac))	Other non-current liabilities (Notes 6(ac) and 7)	Total non-current liabilities	Total liabilities Equity (Notes 6(b), 6(t) and 6(u)):	Ordinary shares	Capital surplus	Retained earnings	Other equity		ž	Total equity					Total liabilities and equity
		2130	2170	2200	2280	2399			2540	2580	2600			3110	3200	3300	3400		36XX						
2019	%	12	c	1	5	11	,	-	31			2	12		7	43	1	4		,	,	4		69	100
September 30, 2019	Amount %	4,993,252 12	2 374 077	1	2.219.930 5	4,364,423 11	28,365 -	265,181	12,591,627 31			695,840 2	4,911,873 12	000000	283,398 2	17,569,406 43	451,126	1,406,248 4	543,053	9,312 -	197,943 -	1,456,163 4	164,076 -	27,988,438 69	40,580,065 100
			720 476 2	1 071,077	6 2.219.930 5	10 4,364,423 11	- 28,365 -	1 265,181 1						000000	1 583,398 2		1 451,126 1	3 1,406,248 4	2 543,053 1	- 9,312 -	1 197,943 -	5 1,456,163 4	- 164,076 -		
		4,993,252	506 840 1 720 476 2	1	2,406,673 6 2,219,930 5	10	,	399,076 1 265,181 1	12,591,627					-	552,591 1 585,598 2	17,569,406	442,348 1 451,126 1	1,401,155 3 1,406,248 4	577,454 2 543,053 1	10,066 - 9,312 -	235,826 1 197,943 -	2,137,914 5 1,456,163 4	150,279 - 164,076 -	27,988,438	40,580,065
December 31, 2019	Amount %	14 4,993,252	_	1 (10,000	9	10	,	-	32 12,591,627			1 695,840	11 4,911,873	-	-	43 17,569,406	_	3	2	1	1	5 1		68 27,988,438	100 40,580,065
December 31, 2019	Amount %	6,708,999 13 5,926,473 14 4,993,252	506 849	1 (10,000	2.406.673 6	11 4,389,156 10	1 21,923 -	-	13,650,150 32 12,591,627			1 695,840	4,556,205 11 4,911,873		-	17,866,310 43 17,569,406	_	3	2	1	1	5 1		28,475,952 68 27,988,438	42,126,102 100 40,580,065
	Amount %	13 5,926,473 14 4,993,252	2 506 849 1	1 (15,000 2 00,000,1	4 2,406,673 6	ies (Note 6(e)) 5.548.514 11 4.389.156 10	is (Note 6(f)) 472,439 1 21,923 -	1 399,076 1	32 13,650,150 32 12,591,627		Non-current francial assets at fair value through	709,218 1 565,804 1 695,840	12 4,556,205 11 4,911,873	ents accounted for using equity method (Note	018,514 1 532,591 1	42 17,866,310 43 17,569,406	1 442,348 1	3 1,401,155 3 1	2 577,454 2	- 10,066 -	1 235,826 1	4 2,137,914 5 1	1 150,279 -	<u>68</u> <u>28,475,952</u> <u>68</u> <u>27,988,438</u>	$\frac{100}{100} $

(English Translation of Consolidated Financial Statements Originally Issued in Chinese) Reviewed only, not audited in accordance with generally accepted auditing standards

WIN Semiconductors Corp. and Subsidiaries

Consolidated Statements of Comprehensive Income

For the three months and nine months ended September 30, 2020 and 2019

(Expressed in Thousands of New Taiwan Dollars, Except for Earnings Per Common Share)

		For the three r	nonths	ended Septembe	er 30	For the nine r	nonths	ended Septembe	er 30
		2020		2019		2020		2019	
		Amount	%	Amount	%	Amount	%	Amount	%
4000	Operating revenue (Notes 6(g) and 6(w))	\$ 6,566,378	100	6,403,619	100	18,685,125	100	14,474,088	100
5000	Operating costs (Notes 6(e), 6(f), 6(g), 6(i), 6(j), 6(l), 6(p), 6(r), 6(u), 6(x), 7 and 12)	(3,715,312)	(57)	(3,710,845)	<u>(58</u>)	(10,515,830)	<u>(56</u>)	(9,365,453)	<u>(65</u>)
	Gross profit from operating	2,851,066	43	2,692,774	42	8,169,295	44	5,108,635	35
	Operating expenses (Notes 6(c), 6(i), 6(j), 6(l), 6(p), 6(r), 6(u), 6(x), 7 and 12):								
6100	Selling expenses	(81,279)	(1)	(84,634)	(2)	(245,594)	(1)	(243,572)	(2)
6200	Administrative expenses	(347,302)	(5)	(324,154)	(5)	(966,424)	(5)	(801,689)	(5)
6300	Research and development expenses	(276,187)	(4)	(272,713)	(4)	(839,534)	(5)	(831,268)	(6)
6450	Gains (losses) on expected credit impairment	17		781		(68)		(2,340)	
	Total operating expenses	(704,751)	(10)	(680,720)	(11)	(2,051,620)	(11)	(1,878,869)	(13)
	Net operating income	2,146,315	33	2,012,054	31	6,117,675	33	3,229,766	22
7100	Non-operating income and expenses (Notes 6(b), 6(g), 6(i), 6(p), 6(y) and 7):			12.016				10.556	
7100	Interest income	4,164	-	13,916	-	25,665	٠,	49,556	-
7010	Other income	164,989	3	106,875	2	209,240	1	178,288	2
7020	Other gains and losses	23,752	-	(127,159)	(2)	2,396	-	(58,060)	(1)
7050	Finance costs	(24,959)	-	(16,513)	-	(61,412)	-	(29,403)	-
7060	Share of profit (loss) of associates and joint ventures accounted for using equity method	76,553	1	(6,439)	_	91,804	_	(195,604)	(1)
	Total non-operating income and expenses	244,499	4	(29,320)	_	267,693	1	(55,223)	
7900	Profit before tax	2,390,814	37	1,982,734	31	6,385,368	34	3,174,543	22
7950	Tax expense (Note 6(s))	(423,371)	(7)	(346,018)	(5)	(1,192,260)	(6)	(613,430)	(4)
	Profit	1,967,443	30	1,636,716	26	5,193,108	28	2,561,113	18
8300	Other comprehensive income:								
8310	Components of other comprehensive income that will not be reclassified to profit or loss (Note $6(t)$)								
8316	Unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income	(620,956)	(9)	1,146,949	18	82,421	-	2,571,678	18
8349	Income tax related to components of other comprehensive income that will not be reclassified to profit or loss								
	Total components of other comprehensive income (loss) that will not be reclassified to profit or loss	(620,956)	<u>(9</u>)	1,146,949	18	82,421		2,571,678	18
8360	Components of other comprehensive income that will be reclassified to profit or loss (Notes 6(g) and 6(t))								
8361	Exchange differences on translation of foreign financial statements	11,429	-	(104,215)	(2)	(81,977)	-	(57,741)	(1)
8370	Shares of other comprehensive income of associates and joint ventures accounted for using equity method	19,264	-	(11,630)	-	12,444	-	(8,480)	-
8399	Income tax related to components of other comprehensive income that will be reclassified to profit or loss								
	Total components of other comprehensive income (loss) that will be reclassified to profit or loss	30,693		(115,845)	<u>(2</u>)	(69,533)		(66,221)	<u>(1</u>)
8300	Other comprehensive income, net	(590,263)	<u>(9</u>)	1,031,104	16	12,888		2,505,457	17
8500	Total comprehensive income	\$ 1,377,180	21	2,667,820	42	5,205,996		5,066,570	35
	Profit (loss) attributable to:								
8610	Profit attributable to owners of parent	\$ 1,978,942	30	1,649,955	26	5,233,206	28	2,612,583	18
8620	Profit (losses) attributable to non-controlling interests	(11,499)		(13,239)		(40,098)	-	(51,470)	
	Comprehensive income (loss) attributable to:	\$ <u>1,967,443</u>	30	1,636,716		5,193,108		2,561,113	18
8710	Comprehensive income, attributable to owners of parent	\$ 1,383,932	21	2,686,678	42	5,239,111	28	5,122,899	35
8720	Comprehensive income (loss), attributable to non-controlling interests	(6,752)		(18,858)		(33,115)		(56,329)	
		\$ 1,377,180	21	2,667,820	42	5,205,996	28	5,066,570	35
	Earnings per common share (expressed in New Taiwan dollars) (Note 6(v))								
9750	Basic earnings per share	\$4.68		3.90		12.38		6.18	
9850	Diluted earnings per share	\$ 4.65		3.89		12.29		6.16	

(English Translation of Consolidated Financial Statements Originally Issued in Chinese)
Reviewed only, not audited in accordance with generally accepted auditing standards

WIN Semiconductors Corp. and Subsidiaries
Consolidated Statements of Changes in Equity
For the nine months ended September 30, 2020 and 2019
(Expressed in Thousands of New Taiwan Dollars)

				har		and in common or a second and a second	7	1-44				
				Retained earnings		Exchange	Unrealized gains (losses) on financial assets Other	y interests Other				
	Ordinary	Capital	סתים מינים מינים	Unappropriated	Total retained	differences on translation of foreign financial	fair value through other comprehensive	unearned compensation for restricted shares of	Total other	Total equity attributable to owners of	Non-controlling	Total somity
Balance at January 1, 2019	\$ 4,238,144	9,199,357	1,755,814	9,422,510	11,178,324	(36,200)	958,390	8	763,882	25,379,707	224,678	25,604,385
Appropriation and distribution of retained earnings: Legal reserve appropriated	,	,	312,446	(312,446)		,						,
Cash dividends of ordinary shares	,	,		(2,118,972)	(2,118,972)	,			,	(2,118,972)		(2,118,972)
			312,446	(2,431,418)	(2,118,972)					(2,118,972)		(2,118,972)
Profit (losses) for the nine months ended September 30, 2019				2,612,583	2,612,583				,	2,612,583	(51,470)	2,561,113
Other comprehensive income for the nine months ended September 30, 2019	,	,	,			(61,362)	2,571,678		2,510,316	2,510,316	(4,859)	2,505,457
Total comprehensive income for the nine months ended September 30, 2019				2,612,583	2,612,583	(61,362)	2,571,678		2,510,316	5,122,899	(56,329)	5,066,570
Changes in ownership interest in subsidiaries				(12,198)	(12,198)					(12,198)		(12,198)
Changes in equity of associates and joint ventures accounted for using equity												(
method		, x						0 0 0	1	∞		∞
Issuance of restricted shares of employees	2,620	47,744						(50,364)	(50,364)			
Compensation cost arising from restricted shares of stock issued to employees		1		,	1			53,228	53,228	53,228		53,228
Purchase and retirement of restricted shares of stock for employees	(200)											
Stock option compensation cost of subsidiary		2,103								2,103	2,497	4,600
Disposal of investments in equity instruments designated at fair value through other comprehensive income				(16,641)	(16,641)		16,641		16,641			
Changes in non-controlling interests	'	'		'	'	'	'	'	'	•	(41,069)	(41,069)
Balance at September 30, 2019	\$ 4,240,564	9,249,412	2,068,260	9,574,836	11,643,096	(97,562)	3,546,709	(155,444)	3,293,703	28,426,775	129,777	28,556,552
Balance at January 1, 2020	\$ 4,240,564	9,244,308	2,068,260	11,330,929	13,399,189	(179,450)	3,089,886	(137,029)	2,773,407	29,657,468	182,064	29,839,532
Appropriation and distribution of retained earnings: Legal reserve appropriated		,	447,440	(447,440)								,
Cash dividends of ordinary shares	,	,		(2,968,394)	(2,968,394)	,			,	(2,968,394)		(2,968,394)
	,		447,440	(3,415,834)	(2,968,394)					(2,968,394)		(2,968,394)
Profit (losses) for the nine months ended September 30, 2020		-		5,233,206	5,233,206					5,233,206	(40,098)	5,193,108
Other comprehensive income for the nine months ended September 30, 2020						(76,516)	82,421		5,905	5,905	6,983	12,888
Total comprehensive income for the nine months ended September 30, 2020				5,233,206	5,233,206	(76,516)	82,421		5,905	5,239,111	(33,115)	5,205,996
Changes in ownership interests in subsidiaries		12,509								12,509		12,509
Changes in compensation cost arising from restricted shares of stock issued to		000						00000	000			
employees due to demission Commencation and anieting from matriced change of stock licenal to amploying		10,800		'	,			(10,806)	(10,806)	009 85		009 85
Stock ontion compensation cost of subsidiary		1 097	' '		0		' '	- 26,051	26,071	1 097	191	1 864
Disposal of investments in equity instruments designated at fair value through		2011										000
other comprehensive income	,		,	29,371	29,371	,	(29,371)	,	(29,371)	,	,	,
Changes in non-controlling interests	1	1			1	-	1	1	1		787,500	787,500
Balance at September 30, 2020	s 4,240,564	9,268,720	2,515,700	13,177,680	15,693,380	(255,966)	3,142,936	(89,144)	2,797,826	32,000,490	937,216	32,937,706

(English Translation of Consolidated Financial Statements Originally Issued in Chinese) Reviewed only, not audited in accordance with generally accepted auditing standards

WIN Semiconductors Corp. and Subsidiaries

Consolidated Statements of Cash Flows

For the nine months ended September 30, 2020 and 2019

(Expressed in Thousands of New Taiwan Dollars)

	For	the nine months ende	d September 30
		2020	2019
Cash flows from (used in) operating activities: Profit before tax	e	6,385,368	3,174,543
Adjustments:	2	0,383,308	3,1/4,543
Adjustments to reconcile profit (loss):			
Depreciation expense		2,644,860	2,477,128
Amortization expense		76,559	48,905
Losses on expected credit impairment		68	2,340
Net gains on financial assets or liabilities at fair value through profit or loss Interest expense		(78,498) 61,412	(86,139) 29,403
Interest income		(25,665)	(49,556)
Dividend income		(190,545)	(115,772)
Share-based payments		60,563	57,828
Shares of (profits) losses of associates and joint ventures accounted for using equity method		(90,873)	193,553
Losses on disposal of property, plant and equipment		3,607	289,249
Gains on disposal of investments		-	(52,110)
Prepayments for business facilities transferred to expenses		266	-
Changes in biological assets at fair value Unrealized foreign exchange losses (gains)		(42,978)	(52) 7,772
Losses on lease modification		(42,978)	3,773
Total adjustments to reconcile profit (loss)		2,418,776	2,806,322
Changes in operating assets and liabilities:		2,110,770	2,000,022
Changes in operating assets:			
Increase in financial assets at fair value through profit or loss		(392,734)	(249,993
Decrease (increase) in notes and accounts receivable		644,993	(799,791
Increase in inventories		(1,163,733)	(462,132
(Increase) decrease in biological assets		(570,317)	84,149
(Increase) decrease in other current assets		(65,316)	58,706 (1,369,061
Total changes in operating assets Changes in operating liabilities:		(1,547,107)	(1,309,001
Increase in contract liabilities		3,595	73,074
(Decrease) increase in notes and accounts payable		(5,131)	660,674
(Decrease) increase in other payables		(233,275)	44,960
Increase in other current liabilities		20,506	8,151
Increase in other non-current liabilities		743	2,105
Total changes in operating liabilities		(213,562)	788,964
Total changes in operating assets and liabilities	-	(1,760,669)	(580,097
Cash inflow generated from operations Dividends received		7,043,475 37,569	5,400,768 3,091
Income taxes paid		(1,297,179)	(376,944
Net cash flows from operating activities		5,783,865	5,026,915
Cash flows from (used in) investing activities:			
Acquisition of financial assets at fair value through other comprehensive income		(1,432,183)	(7,076
Proceeds from disposal of financial assets at fair value through other comprehensive income		30,285	17,273
Proceeds from capital reduction of financial assets at fair value through other comprehensive income		6,667	6,667
Proceeds from disposal of non-current financial assets at amortized cost		(202.512)	29,900
Acquisition of financial assets at fair value through profit or loss Proceeds from disposal of financial assets at fair value through profit or loss		(293,513) 32,666	(423,162 306,706
Acquisition of investments accounted for using equity method		- 32,000	(248,320
Acquisition of property, plant and equipment		(4,005,461)	(2,922,307
Proceeds from disposal of property, plant and equipment		1,119	38,086
Acquisition of intangible assets		(281,550)	(34,653
Net cash outflows from business combination		-	(138,256
Acquisition of right-of-use assets		- (25.420)	(27,101
Increase in other non-current assets		(37,130)	(72,095
Increase in prepayments for business facilities Interest received		(1,545,327) 24,657	(682,741 51,016
Dividends received		150,452	106,512
Net cash flows used in investing activities		(7,349,318)	(3,999,551
Cash flows from (used in) financing activities:		(7,515,510)	(3,777,331
Proceeds from long-term debt		7,301,803	4,272,765
Repayments of long-term debt		(2,632,500)	(3,556,800
Decrease in guarantee deposits received		(1,091)	(14,729
Repayments of lease liabilities		(72,439)	(56,420
Cash dividends paid		(2,968,394)	(2,118,972
Interest paid		(29,647)	(16,581
Changes in non-controlling interests		800,009	2,072
Net cash flows from (used in) financing activities		2,397,741 (49,762)	(1,488,665 (7,620
Effect of exchange rate changes on cash and cash equivalents Net increase (decrease) in cash and cash equivalents	-	(49,762) 782,526	(468,921
		104,340	
Cash and cash equivalents at beginning of period		5,926,473	5,462,173

(English Translation of Consolidated Financial Statements Originally Issued in Chinese) Reviewed only, not audited in accordance with generally accepted auditing standards

WIN Semiconductors Corp. and Subsidiaries

Notes to the Consolidated Financial Statements

September 30, 2020 and 2019

(Expressed in Thousands of New Taiwan Dollars, Unless Otherwise Specified)

(1) Company history:

WIN Semiconductors Corp. (the "Company") was incorporated on October 16, 1999 as a company limited by shares and registered under the Ministry of Economic Affairs, R.O.C. The address of the Company's registered office is No. 69, Keji 7th Rd., Hwaya Technology Park, Guishan Dist., Taoyuan City, Taiwan.

The main operation the Company and its subsidiaries (together referred to as "the Group") are as follows:

- (a) Researching, developing, manufacturing, and selling of GaAs wafers.
- (b) Developing hog farming technology and trading.
- (c) Researching, manufacturing and selling of high-density gene chips, biochip optical readers and micro-electrophoresis analyzers.

(2) Approval date and procedures of the consolidated financial statements:

These consolidated financial statements were reported to the Board of Directors as of November 6, 2020.

(3) New standards, amendments and interpretations adopted:

(a) The impact of the International Financial Reporting Standards ("IFRSs") endorsed by the Financial Supervisory Commission, R.O.C. ("FSC") which have already been adopted.

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2020.

	Effective date
New, Revised or Amended Standards and Interpretations	per IASB
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020
Amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform"	January 1, 2020
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020
Amendments to IFRS 16 "COVID-19-Related Rent Concessions"	June 1, 2020

The Group assesses that the adoption of the abovementioned standards would not have any material impact on its consolidated financial statements.

(b) The impact of IFRS issued by the FSC but not yet effective

The following new standards, interpretations and amendments have been endorsed by the FSC and are effective for annual periods beginning on or after January 1, 2021:

	Effective date
New, Revised or Amended Standards and Interpretations	per IASB
Amendments to IFRS 4 "Extension of the Temporary Exemption from Applying IFRS 9"	January 1, 2021

The Group assesses that the adoption of the abovementioned amendments would not have any material impact on its consolidated financial statements.

(c) The impact of IFRS issued by IASB but not yet endorsed by the FSC

As of the date, the following IFRSs that have been issued by the International Accounting Standards Board (IASB), but have yet to be endorsed by the FSC:

New, Revised or Amended Standards and Interpretations	Effective date per IASB
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets Between an Investor and Its Associate or Joint Venture"	Effective date to be determined by IASB
IFRS 17 "Insurance Contracts"	January 1, 2023
Amendments to IAS 1 "Classification of Liabilities as Current or Non-current"	January 1, 2023
Amendments to IAS 16 "Property, Plant and Equipment – Proceeds before Intended Use"	January 1, 2022
Amendments to IAS 37 "Onerous Contracts—Cost of Fulfilling a Contract"	January 1, 2022
Annual Improvements to IFRS Standards 2018-2020	January 1, 2022
Amendments to IFRS 3 "Reference to the Conceptual Framework"	January 1, 2022
Amendments to IFRS 17 "Insurance Contracts"	January 1, 2023
Amendments to IFRS 9, IAS39, IFRS7, IFRS 4 and IFRS 16 "Interest Rate Benchmark Reform—Phase 2"	January 1, 2021

Those which may be relevant to the Group are set out below:

Issuance / Release Dates	Standards or Interpretations	Content of amendment
January 23, 2020	Amendments to IAS 1 "Classification of Liabilities as Current or Non-current"	The amendments aim to promote consistency in applying the requirements by helping companies determine whether, in the statement of balance sheet, debt and other liabilities with an uncertain settlement date should be classified as current (due or potentially due to be settled within one year) or non-current. The amendments include clarifying the classification requirements for debt a company might settle by converting it into equity.

(Continued)

The Group is evaluating the impact of its initial adoption of the abovementioned standards or interpretations on its consolidated financial position and consolidated financial performance. The results thereof will be disclosed when the Group completes its evaluation.

(4) Summary of significant accounting policies:

Except the following accounting policies mentioned below, the significant accounting policies adopted in the consolidated financial statements are the same as those in the consolidated financial statement for the year ended December 31, 2019. For the related information, please refer to Note 4 of the consolidated financial statements for the year ended December 31, 2019.

(a) Statement of compliance

These consolidated financial statements have been prepared in accordance with the preparation and guidelines of IAS 34 "Interim Financial Reporting" which are endorsed by FSC, and do not include all of the information required by the Regulations and International Financial Reporting Standards, International Accounting Standards, IFRIC Interpretations and SIC Interpretations endorsed by the FSC (hereinafter referred to IFRS endorsed by the FSC) for a complete set of the annual consolidated financial statements.

(b) Basis of consolidation

(i) List of subsidiaries in the consolidated financial statements:

				Shareholding		
			September 30,	December 31,	September 30,	
Name of investor	Name of subsidiary	Principal activity	2020	2019	2019	Remark
The Company	WIN SEMI. USA, INC.	Marketing	100.00 %	100.00 %	100.00 %	
The Company	Win Semiconductors Cayman Islands Co., Ltd. (abbrev. Win Cayman)	Investment activities	100.00 %	100.00 %	100.00 %	(Note 1)
The Company	WIN Venture Capital Corp. (abbrev. WVC)	Investment activities	100.00 %	100.00 %	100.00 %	
The Company	Phalanx Biotech Group, Inc. (abbrev. PBL)	Researching, manufacturing and selling of high-density gene chips and testing service	54.48 %	54.48 %	39.89 %	(Note 2)
The Company	WIN Earn Investment Corp.	Investment activities	100.00 %	100.00 %	-	
The Company	WIN Chance Investment Corp.	Investment activities	100.00 %	100.00 %	-	
WVC	Phalanx Biotech Group, Inc.	Researching, manufacturing and selling of high-density gene chips and testing service	4.39 %	4.39 %	5.82 %	(Note 2)
Win Cayman	Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd. (abbrev. Chainwin Cayman)	Investment activities	86.78 %	96.30 %	96.30 %	(Note 2) (Note 3)
Chainwin Cayman	Jiangsu Chainwin Kang Yuan Agricultural Development Co., Ltd.	Developing hog farming technology and trading	100.00 %	100.00 %	100.00 %	
Chainwin Cayman	Jiangsu Win Chance Agriculture Development Co., Ltd.	Developing hog farming technology and trading	100.00 %	100.00 %	90.79 %	(Note 2) (Note 4)
Chainwin Cayman	Jiangsu Chainwin Agriculture and Animal Technology Co., Ltd.	Farm feed development and trading	100.00 %	100.00 %	100.00 %	
Chainwin Cayman	Jiangsu Merit Runfu Agriculture Development Co., Ltd.	Developing hog farming technology and trading	100.00 %	100.00 %	100.00 %	
Chainwin Cayman	Jiangsu Win Yield Agriculture Development Co., Ltd.	Developing hog farming technology and trading	100.00 %	100.00 %	100.00 %	
Chainwin Cayman	i-Chainwin Technology (Cayman Islands) Co., Ltd.	Investment activities	100.00 %	-	-	
Chainwin Cayman	Win Lux Biotech (Cayman Islands) Co., Ltd.	Investment activities	100.00 %	=	-	
Chainwin Cayman	Jiangsu Win Shine Agriculture Development Co., Ltd.	Logistics management service	100.00 %	=	-	

				Shareholding		
			September 30,	December 31,	September 30,	
Name of investor	Name of subsidiary	Principal activity	2020	2019	2019	Remark
PBL	PhalanxBio, Inc.	Selling of high-density gene chips and testing service	100.00 %	100.00 %	100.00 %	
PBL	Phalanx Biotech Limited. (abbrev. PBL (HK))	Investment activities	100.00 %	100.00 %	100.00 %	
PBL (HK)	Onearray Biotech (Kunshan) Co., Ltd.	Selling of high-density gene chips and testing service	100.00 %	100.00 %	100.00 %	

- Note 1: The principal activity of Win Cayman has been changed from selling of GaAs wafers to investment activities since January 1, 2020.
- Note 2: For the related information of the shareholding percentage change, please refer to Note 6(h) of consolidated financial statements for the year ended December 31, 2019.
- Note 3: On June 16, 2020, Win Cayman subscribed the new shares unproportionally contributed by Chainwin Cayman for USD 50,000 thousand (NTD 1,487,000 thousand) in cash, which cause the percentage of ownership changed. For the related information of the shareholding percentage change for the nine months ended September 30, 2019, please refer to Note 6(h) for the further information.
- Note 4: Jiangsu Merit/CM Agriculture Development Co., Ltd. renamed to Jiangsu Win Chance Agriculture Development Co., Ltd. in April 2020.
- Note 5: The aforementioned subsidiaries were recognized based on the reviewed financial statements by the certified public accountant.
- (ii) List of subsidiaries which are not included in the consolidated financial statements: None.

(c) Government grants

The Group recognizes an unconditional government grant related to research and development plan in profit or loss as other income when the grant becomes receivable. Grants that compensate the Group for expenses or losses incurred are recognized in profit or loss on a systematic basis in the periods in which the expenses or losses are recognized.

(d) Income taxes

The income tax expenses have been prepared and disclosed in accordance with paragraph B12 of IAS 34 "Interim Financial Reporting."

Income tax expenses for the period are best estimated by multiplying pre-tax income for the interim reporting period by the effective annual tax rate as forecasted by the management. This should be recognized fully as tax expense for the current period.

Temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases shall be measured based on the tax rates that have been enacted or substantively enacted at the time of the asset or liability is recovered or settled, and be recognized directly in equity or other comprehensive income as tax expense.

(e) Employee benefits

The pension cost in the interim period was calculated and disclosed on a year-to-date basis by using the actuarially determined pension cost rate at the end of the prior fiscal year, adjusted for significant market fluctuations since that time and for significant curtailments, settlements, or other significant one-time events.

(5) Significant accounting assumptions and judgments, and major sources of estimation uncertainty:

The preparation of the consolidated financial statements in conformity with the Regulations and IFRSs (in accordance with IAS 34 "Interim Financial Reporting" and endorsed by the FSC) requires management to make judgments, estimates and assumptions that affect the application of the accounting policies and the reported amount of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Except for the following, the preparation of the consolidated financial statements, estimates and underlying assumptions are reviewed on an ongoing basis which are in conformity with the consolidated financial statements for the year ended December 31, 2019. For the related information, please refer to Note 5 of the consolidated financial statements for the year ended December 31, 2019.

The accounting policies involved significant judgments and the information that have significant effect in the consolidated financial statements as follows:

(a) Judgment of whether the Group has substantive control over its investee

The Group holds 49% of the outstanding voting shares of Rainbow Star Group Limited and is the single largest shareholder of the investee. The remaining 51% of Rainbow Star Group Limited's shares are concentrated within specific shareholders, and therefore the Group cannot obtain more than half of the total number of Rainbow Star Group Limited directors, and it also cannot obtain more than half of the voting rights at a shareholders' meeting. As a result, it is determined that the Group has significant influence but not control over Rainbow Star Group Limited.

(6) Explanation of significant accounts:

Except for the following disclosure, the significant account disclosure in the consolidated financial statements for the nine months ended September 30, 2020, which compare with the consolidated financial statements for the year ended December 31, 2019, was not changed significantly. For the related information, please refer to Note 6 of the consolidated financial statements for the year ended December 31, 2019.

(a) Cash and cash equivalents

	Septembe 2020	r 30,	December 31, 2019	September 30, 2019
Cash on hand	\$	459	500	504
Cash in bank	6,5	07,071	5,681,365	4,794,399
Time deposits	2	01,469	244,608	198,349
	\$6,7	08,999	5,926,473	4,993,252

Refer to Note 6(z) for the fair value sensitivity analysis and currency risk of the financial assets and liabilities of the Group.

(b) Financial instruments

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

	Se	eptember 30, 2020	December 31, 2019	September 30, 2019
Mandatorily measured at FVTPL:				
Derivative instruments not used for hedging				
Foreign currency forward contracts	\$	-	-	299
Non-derivative financial assets				
Stock listed on domestic markets		241,438	206,359	424,143
Private fund (Note)		709,218	565,804	695,840
Equity funds and money market funds		856,600	300,490	296,034
Total	\$_	1,807,256	1,072,653	1,416,316
Current	\$	1,098,038	506,849	720,476
Non-current		709,218	565,804	695,840
	\$_	1,807,256	1,072,653	1,416,316

Note: As of September 30, 2020, December 31 and September 30, 2019, part of the private fund is during the lock-up period.

The Group holds derivative financial instruments to hedge certain foreign exchange the Group is exposed to, arising from its operating activities. The following derivative instruments, without the application of hedge accounting, were classified as mandatorily measured at fair value through profit or loss:

Foreign currency forward contracts:

		September 30, 2019				
	Amount					
	(in thousands)	Currency	Maturity dates			
Forward exchange contracts	HKD\$7,600	HKD Put/NTD Call	2019/10/8			

For the three months and nine months ended September 30, 2020 and 2019, the gains on derivative settlement, amounting to \$0 thousand, \$264 thousand, \$4,259 thousand and \$264 thousand, respectively, were recognized as other gains and losses.

Refer to Note 6(y) for the gains or losses on disposal of investment and the amount of re-measurement at fair value recognized in profit or loss.

(ii) Non-current financial assets at fair value through other comprehensive income (FVOCI):

	September 30,		December 31,	September 30,
		2020	2019	2019
Stocks listed on domestic markets	\$	4,169,529	3,145,387	3,649,021
Stocks listed on US markets		795,128	710,571	642,691
Non-public stocks		1,066,652	700,247	620,161
	\$	6,031,309	4,556,205	4,911,873

The Group decided to hold these equity instruments, which are not held for trading, at fair value through other comprehensive income.

For the nine months ended September 30, 2020, due to the redemption of preferred shares, the Group disposed the equity investments at fair value through other comprehensive income, with a fair value of \$30,285 thousand; upon derecognition, the gains on disposal, accumulated in other equity, amounting to \$29,371 thousand was transferred to retained earnings.

For the nine months ended September 30, 2019, due to liquidation of investee or return of capital contributions, the Group disposed the equity investments at fair value through other comprehensive income, with a fair value of \$17,273 thousand; upon derecognition, the loss of disposal, accumulated in other equity, amounting to \$16,641 thousand was transferred to retained earnings.

(iii) Sensitivity analysis in the equity price risk:

If the equity price changes, the impact to comprehensive income, using the sensitivity analysis based on the same variables except for the price index for both periods, will be as follows:

	For the nine n September		For the nine months ended September 30, 2019		
Prices of securities at the reporting date	After-tax other comprehensive income	After-tax profit (loss)	After-tax other comprehensive income	After-tax profit (loss)	
Increasing 3%	\$ 180,939	7,243	147,356	12,724	
Decreasing 3%	\$ (180,939	(7,243)	(147,356)	(12,724)	

(iv) As of September 30, 2020, December 31 and September 30, 2019, the financial assets were not pledged. For information on the Group's credit risk and market risk was disclosed in Note 6(z).

(c) Notes and accounts receivable, net

	September 30, 2020		December 31, 2019	September 30, 2019	
Notes receivable	\$	829	684	1,178	
Accounts receivable		1,765,177	2,410,333	2,223,295	
Less: loss allowance		(4,357)	(4,344)	(4,543)	
	\$	1,761,649	2,406,673	2,219,930	

(Continued)

The Group applies the simplified approach to provide for its loss allowance used for expected credit losses, which permit the use of lifetime expected loss provision for all receivables. To measure the expected credit losses, notes and accounts receivable have been grouped based on shared credit risk characteristics and days past due, as well as incorporate forward looking information.

The loss allowance provision was determined as follows:

(i) The segment of foundry and agriculture technology:

	September 30, 2020				
		ess carrying amount	Weighted- average expected loss rate	Lifetime expected credit loss allowance	
Not past due	\$	1,563,862	0%	-	
Past due 1~60 days		192,974	0%	-	
Past due 61~120 days		1,033	0%	-	
Past due 121~180 days		-	21.28%~36.46%	-	
Past due more than 181 days		_	100%		
	\$	1,757,869			
		Ι	December 31, 2019		
			Weighted-		
		oss carrying amount	average expected loss rate	Lifetime expected credit loss allowance	
Not past due		·	average expected loss		
Not past due Past due 1~60 days		amount	average expected loss rate	expected credit	
-		<u>amount</u> 2,133,319	average expected loss rate	expected credit	
Past due 1~60 days		2,133,319 266,022	average expected loss rate 0% 0%	expected credit	
Past due 1~60 days Past due 61~120 days		2,133,319 266,022	average expected loss rate 0% 0% 0%	expected credit	

	September 30, 2019			
	Gro	oss carrying amount	Weighted- average expected loss rate	Lifetime expected credit loss allowance
Not past due	\$	2,028,656	0%	-
Past due 1~60 days		185,925	0%	-
Past due 61~120 days		2	0%	-
Past due 121~180 days		-	21.28%~36.46%	-
Past due more than 181 days		-	100%	
	\$	2,214,583		

(ii) The segment of gene chip testing ser	vice:			
		S	eptember 30, 2020	1
		carrying	Weighted- average expected loss rate	Lifetime expected credit loss allowance
Not past due	\$	2,987	0.68%~9.40%	25
Past due 1~60 days		557	6.02%~48.02%	38
Past due 61~120 days		375	11.61%~64.34%	85
Past due 121~180 days		18	47.37%~86.11%	9
Past due more than 181 days		4,200	100%	4,200
	\$	8,137		4,357
		Ι	December 31, 2019	
			Weighted-	T. 10 . 1
	Gross c	arrying	average expected loss	Lifetime expected credit
		ount	rate	loss allowance
Not past due	\$	3,264	0.64%~11.55%	87
Past due 1~60 days		1,719	5.30%~43.87%	291
Past due 61~120 days		171	10.96%~49.43%	74
Past due 121~180 days		151	38.09%~74.36%	104
Past due more than 181 days		3,788	100%	3,788
	\$	9,093		4,344

	September 30, 2019			
		ss carrying	Weighted- average expected loss	Lifetime expected credit
Not past due	\$	<u>4,357</u>	rate 0.68%~11.38%	loss allowance 98
Past due 1~60 days	Ψ	685	5.66%~39.20%	92
•				
Past due 61~120 days		160	11.71%~45.21%	67
Past due 121~180 days		1,439	40.68%~72.22%	1,037
Past due more than 181 days		3,249	100%	3,249
	\$	9,890		4,543

The movements of loss allowance were as follows:

		For the nine months ended September 30, 2020	For the nine months ended September 30, 2019
Beginning balance	\$	4,344	2,317
Impairment loss recognized, net		68	2,340
Amount written off		(18)	-
Effect of changes in foreign exchange rates		(37)	(114)
Ending balance	\$ <u></u>	4,357	4,543

As of September 30, 2020, December 31 and September 30, 2019, the notes and accounts receivable were not discounted and pledged.

(d) Other receivables (recognized as other current assets)

	Sept	September 30, 2020		September 30, 2019
Other receivables Less: loss allowance	\$	32,508	50,517	56,912
	\$	32,508	50,517	56,912

As of September 30, 2020, December 31 and September 30, 2019, other receivables were not past due nor impaired.

For information on the Group's credit risk was disclosed in Note 6(z).

(e) Inventories

	September 30, 2020		December 31, 2019	September 30, 2019	
Raw materials, supplies and spare parts	\$	3,253,581	2,881,948	2,772,122	
Work in process		1,229,235	1,130,127	1,035,584	
Finished goods		1,065,698	377,081	556,717	
	\$	5,548,514	4,389,156	4,364,423	

Except cost of goods sold and inventories recognized as expenses, the remaining gains or losses which were recognized as operating cost or deduction of operating cost were as follows:

	mon	the three of the ended ember 30, 2020	For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019
Losses on valuation of inventories and obsolescence	•	1,316	17,430	76,360	28,663
Unallocated overheads	\$ \$	-	-	-	67,129
Scraps income	\$	(7,266)	(7,711)	(20,141)	(20,468)
Losses (gains) on physical inventory count	\$	(103)	69	(40)	67

As of September 30, 2020, December 31 and September 30, 2019, the inventories were not pledged.

(f) Biological assets

(i) List of biological assets:

	Sep	tember 30, 2020	December 31, 2019	September 30, 2019	
Consumable biological assets	<u>\$</u>	472,439	21,923	28,365	
Bearer biological assets	\$	126,611	10,066	9,312	

(ii) Change in biological assets:

	moi	r the nine of the ended tember 30, 2020	For the nine months ended September 30, 2019	
Beginning balance	\$	31,989	134,348	
Increase due to purchase		441,686	-	
Input costs		168,079	287,133	
Depreciation expenses		(3,504)	(8,806)	
Decrease due to sales and disposals		(39,448)	(371,282)	
Changes in fair value less costs to sell due to price changes		-	52	
Effect of changes in foreign exchange rates		248	(3,768)	
Ending balance	\$	599,050	37,677	
Current	\$	472,439	28,365	
Non-current		126,611	9,312	
	\$	599,050	37,677	

For the nine months ended September 30, 2020 and 2019, the gains of \$0 thousand and \$52 thousand, respectively, were recognized as operating costs of the consolidated statement of comprehensive income as a result of the remeasurement of biological assets at the higher of its carrying amount or fair value less costs to sell.

(iii) The numbers of the Group's biological assets were as follows:

Unit: head

	September 30, 2020	December 31, 2019	September 30, 2019
Farrows, hogs and breeders	45,884	4,029	7,319

(iv) Fair value

There were no significant addition regarding the fair value of the Group's biological assets. For the related information, please refer to Note 6(f) of the consolidated financial statements for the year ended December 31, 2019.

(v) As of September 30, 2020, December 31 and September 30, 2019, the biological assets were not pledged.

(g) Investments accounted for using equity method

The components of investments accounted for using the equity method at the reporting date were as follows:

	September	30, December 31,	September 30,	
	2020	2019	2019	
Associates	<u>\$61</u>	8,514 532,591	583,398	

(i) Associates

In the third quarter of 2019, the Group subscribed the new shares contributed by Jiangsu CM/Chainwin Agriculture Development Co., Ltd. for \$248,320 thousand in cash

Associates which are material to the Group consisted of the followings:

		Main Operating	Proportion of Shareholding			
		Location/ Registered	a	and Voting Rights		
	Main Businesses	Country of the	September 30,	December 31, S	eptember 30,	
Name of Associates	and Products	Company	2020	2019	2019	
Jiangsu CM/Chainwin	Developing hog	China	49 %	49 %	49 %	
Agriculture	farming technology					
Development Co., Ltd.	and trading					

The following consolidated financial information of significant associates has been adjusted according to individually prepared IFRS financial statements of these associates.

The financial information of Jiangsu CM/Chainwin Agriculture Development Co., Ltd.:

	Sej	ptember 30, 2020	December 31, 2019	September 30, 2019	
Current assets	\$	207,650	455,271	558,949	
Non-current assets		1,607,885	1,274,357	1,207,463	
Current liabilities		(342,618)	(475,061)	(406,061)	
Non-current liabilities		(324,761)	(287,127)	(372,305)	
Net assets	\$	1,148,156	967,440	988,046	

	For the three months ended September 30, 2020	For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019
Operating revenue	\$ 255,794		330,219	85,060
Profit (losses) from continuing operations	\$ 156,231	(12,522)	187,355	(397,283)
Other comprehensive income				
Total				
comprehensive income	\$156,231	(12,522)	187,355	(397,283)
			For the nine	For the nine
			months ended September 30, 2020	months ended September 30, 2019
Shares of net assets o	f associates at the	beginning	September 30,	September 30,
Profits (losses) attribu	utable to the Group)	September 30, 2020	September 30, 2019
	ntable to the Group on translation of t	o Foreign	September 30, 2020 \$ 472,528	September 30, 2019 433,761
Profits (losses) attribu Exchange differences	ntable to the Group on translation of the stattributable to the	o Coreign e Group	September 30, 2020 \$ 472,528 91,804	September 30, 2019 433,761 (194,669)
Profits (losses) attribu Exchange differences financial statement	on translation of the associates at the	o Coreign e Group	September 30, 2020 \$ 472,528 91,804 12,444	September 30, 2019 433,761 (194,669) (8,480)
Profits (losses) attributed Exchange differences financial statement Shares of net assets of Add: Issuance of shares	table to the Group on translation of the sattributable to the fassociates at the res in cash es in foreign excha	Foreign e Group end nge rates	September 30, 2020 \$ 472,528 91,804 12,444	September 30, 2019 433,761 (194,669) (8,480) 230,612

Summary of financial information for the individually insignificant investments in associates accounted for using the equity method were as follows. The aforementioned financial information was included in the consolidated financial statements of the Group:

	Sej	otember 30, 2020	December 31, 2019	September 30, 2019	
Total equity of the individually insignificant investments in					
associates	\$	57,391	60,063	100,827	

	For the three months ended September 30, 2020		For the three months ended September 30, 2019		For the nine months ended September 30, 2019	
Attributable to the Group: Profit (losses)	\$	(327)	(1,703)	(931)	1,116	
Other comprehensive income	Ψ 			-		
Total comprehensive income	\$	(327)	(1,703)	(931)	1,116	

(ii) Pledge to secure

As of September 30, 2020, December 31 and September 30, 2019, the investments accounted for using equity method were not pledged.

(iii) The unreviewed financial statements of investments accounted for using equity method

Except for Jiangsu CM/Chainwin Agriculture Development Co., Ltd., all other associates were accounted for by using the equity method, and the shares of profit or loss and other comprehensive income of those investments were calculated based on the financial statements that have not been reviewed.

(h) Acquisition of non-controlling interests

On January 11 and August 19, 2019, the Group subscribed the new shares contributed by Chainwin Cayman for \$1,352,560 thousand and \$282,510 thousand in cash, respectively. Therefore, for the nine months ended September 30, 2019, the Group increased its ownership from 94.71% to 96.30%.

Based on the aforementioned transactions, the effects of the changes in shareholdings were as follows:

	mo	nonths ended eptember 30, 2019	
Carrying amount of interest on acquisition	\$	1,622,872	
Consideration paid	_	(1,635,070)	
Retained earnings changes in ownership interests in subsidiaries	\$	(12,198)	

For the nine months ended September 30, 2020, the Group did not have any transaction with non-controlling interest.

(i) Property, plant and equipment

The movements in property, plant and equipment were as follows:

		Land	Buildings and structures	Machinery and equipment	Factory and equipment	Other equipment	Construction in progress and inspection- awaited devices	Total
Cost:								
Balance as of January 1, 2020	\$	2,546,534	2,440,170	21,000,682	5,717,323	537,768	2,224,358	34,466,835
Additions		-	3,236	1,084,370	219,526	168,946	2,587,537	4,063,615
Reclassification (Note)		-	2,477	1,591,657	242,740	20,836	(151,644)	1,706,066
Disposals		-	(4,304)	(2,172,054)	(43,950)	(100,438)	-	(2,320,746)
Effect of changes in foreign exchange rates	_	-	(455)	(51)	(372)	(407)	(6,451)	(7,736)
Balance as of September 30, 2020	\$_	2,546,534	2,441,124	21,504,604	6,135,267	626,705	4,653,800	37,908,034
Balance as of January 1, 2019	\$	2,546,534	2,188,435	20,141,998	4,241,965	507,810	1,745,695	31,372,437
Additions		-	66,255	702,119	245,651	72,407	1,836,165	2,922,597
Reclassification (Note)		-	185,684	1,707,832	632,573	11,589	(653,740)	1,883,938
Disposals		-	(418)	(2,499,628)	(52,280)	(75,586)	(2,865)	(2,630,777)
Effect of changes in foreign exchange rates	_	-	(1,576)	(161)	(1,341)	(1,352)	(60,339)	(64,769)
Balance as of September 30, 2019	\$_	2,546,534	2,438,380	20,052,160	5,066,568	514,868	2,864,916	33,483,426
Accumulated depreciation:	_							
Balance as of January 1, 2020	\$	-	799,279	12,925,067	2,576,431	299,748	-	16,600,525
Depreciation		-	93,968	1,979,838	365,229	129,139	-	2,568,174
Disposals		-	(4,268)	(2,167,364)	(43,950)	(100,438)	-	(2,316,020)
Effect of changes in foreign exchange rates	_		(85)	(20)	(131)	(133)		(369)
Balance as of September 30, 2020	\$_		888,894	12,737,521	2,897,579	328,316		16,852,310
Balance as of January 1, 2019	\$	-	689,336	12,637,886	2,240,384	236,579	-	15,804,185
Depreciation		-	79,628	1,910,411	310,178	110,093	-	2,410,310
Disposals		-	(418)	(2,174,602)	(49,048)	(75,079)	-	(2,299,147)
Effect of changes in foreign exchange rates	_	-	(321)	(64)	(473)	(470)		(1,328)
Balance as of September 30, 2019	\$_		768,225	12,373,631	2,501,041	271,123		15,914,020
Carrying value:	_							
Balance as of January 1, 2020	\$_	2,546,534	1,640,891	8,075,615	3,140,892	238,020	2,224,358	17,866,310
Balance as of September 30, 2020	\$	2,546,534	1,552,230	8,767,083	3,237,688	298,389	4,653,800	21,055,724
Balance as of January 1, 2019	\$_	2,546,534	1,499,099	7,504,112	2,001,581	271,231	1,745,695	15,568,252
Balance as of September 30, 2019	\$	2,546,534	1,670,155	7,678,529	2,565,527	243,745	2,864,916	17,569,406

Note: Inventories, prepayments for business facilities, and capitalized right-of-use depreciation expenses were reclassified as property, plant and equipment.

(i) Pledge to secure

As of September 30, 2020, December 31 and September 30, 2019, property, plant and equipment were subject to a registered debenture to secured bank loans and line of credit, the collateral for these long-term borrowings was disclosed in Note 8.

(ii) Property, plant and equipment under construction

The Group rented some pieces of land and entered into different agreements for the construction of its new factories on the said lands. For the nine months ended September 30, 2020, the Group has constructed factories amounting to \$2,261,393 thousand, and has recognized as construction in progress. As of September 30, 2020, the total amount of the construction is \$4,103,770 thousand, and is recognized as construction in progress.

(iii) For the three months and nine months ended September 30, 2020 and 2019, capitalized interest expenses amounted to \$6,364 thousand, \$9,499 thousand, \$24,450 thousand and \$31,006 thousand, respectively. The annual interest rates at which these interest expenses were capitalized ranged from 0.60%~0.72%, 1.15%~1.26%, 0.60%~2.28% and 1.11%~1.34%, respectively.

(j) Right-of-use assets

The movements in right-of-use assets were as follows:

		Land	Buildings and structures	Other	Total
Cost:	_	Lanu	structures	equipment	1 otai
Balance at January 1, 2020	\$	391,749	103,892	11,025	506,666
Additions		77,760	52,857	4,999	135,616
Disposals		(45)	_	(1,177)	(1,222)
Effect of change in foreign exchange rates		(2,030)	733		(1,297)
Balance at September 30, 2020	\$_	467,434	157,482	14,847	639,763
Balance at January 1, 2019	\$	-		_	-
Effects of retrospective application for IFRS 16		243,163	86,773	7,880	337,816
Additions		236,797	8,737	3,608	249,142
Disposals		(77,127)	-	-	(77,127)
Effect of change in foreign exchange rates		(11,999)			(11,999)
Balance at September 30, 2019	\$_	390,834	95,510	11,488	497,832
Accumulated depreciation:	_				
Balance at January 1, 2020	\$	24,602	35,729	3,987	64,318
Depreciation (Note 1)		25,249	32,036	4,054	61,339
Disposals		-	-	(1,177)	(1,177)
Effect of change in foreign exchange rates		(86)	15		(71)
Balance at September 30, 2020	\$_	49,765	67,780	6,864	124,409
Balance at January 1, 2019	\$	-	-		-
Depreciation (Note 2)		18,642	26,458	3,316	48,416
Disposals		(1,349)	-	-	(1,349)
Effect of change in foreign exchange rates	_	(361)			(361)
Balance at September 30, 2019	\$_	16,932	26,458	3,316	46,706

Carrying amount:	_	Land	Buildings and structures	Other equipment	Total
Balance at January 1, 2020	\$	367,147	68,163	7,038	442,348
Balance at September 30, 2020	\$	417,669	89,702	7,983	515,354
Balance at January 1, 2019	\$	-			
Balance at September 30, 2019	\$	373,902	69,052	8,172	451,126

Note 1: Including capitalized depreciation expenses transferred to construction in progress, which amounted to \$3,437 thousand.

Note 2: Including capitalized depreciation expenses transferred to construction in progress, which amounted to \$5,684 thousand.

(k) Investment property

		Buildings and	
	 Land	structures	Total
Carrying amount:			
Balance as of January 1, 2020	\$ 963,127	438,028	1,401,155
Balance as of September 30, 2020	\$ 963,127	422,748	1,385,875
Balance as of January 1, 2019	\$ 963,127	458,401	1,421,528
Balance as of September 30, 2019	\$ 963,127	443,121	1,406,248
Fair value:			
Balance as of January 1, 2020		9	1,578,738
Balance as of September 30, 2020		9	1,545,595
Balance as of September 30, 2019		9	1,590,491

There were no significant additions, disposals, or recognition and reversal of impairment losses of investment property for the nine months ended September 30, 2020 and 2019. Information on depreciation for the period is discussed in Note 12(a). Please refer to Note 6(l) of the 2019 consolidated financial statements for other related information.

When measuring the fair value of its investment property, the Group considered the present value of net cash flows to be generated from leasing the property. The expected net cash flows were discounted using the yield to reflect its specified inherit risk on the net cash flows. The inputs to the valuation technique used for measuring fair value were categorized as a Level 2 fair value.

As of September 30, 2020, December 31 and September 30, 2019, the yield applied to the net annual rentals to determine fair value of property for which current prices in an active market were unavailable, was as follows:

	September 30,	December 31,	September 30,
Location	2020	2019	2019
Hsinchu	0.36%	0.31%	0.31%
Taoyuan	0.53%	0.34%	0.46%

As of September 30, 2020, December 31 and September 30, 2019, investment property was subject to a registered debenture to secured bank loans and line of credit, the collateral for these long-term borrowings was disclosed in Note 8.

(l) Intangible assets

		echnical 10w-how	Computer software and information systems	Goodwill	Land use rights	Others	Total
Cost:							
Balance as of January 1, 2020	\$	49,280	188,418	443,002	-	22,628	703,328
Additions		-	231,346	-	-	4,379	235,725
Reclassification (Note 1)		-	17,778	-	-	-	17,778
Disposals		(125)	(971)	-	-	-	(1,096)
Effect of changes in foreign exchange rates		-	(3,374)	(3,647)		(605)	(7,626)
Balance as of September 30, 2020	\$	49,155	433,197	439,355		26,402	948,109
Balance as of January 1, 2019	\$	46,005	150,871	446,068	32,591	25,628	701,163
Effects of retrospective application for IFRS 16		_	_	_	(32,591)	_	(32,591)
Additions		2,125	22,835	_	-	22	24,982
Reclassification (Note 2)			10,505	_	-	-	10,505
Disposals		_	(784)	_	-	_	(784)
Effect of changes in foreign exchange rates	;	_	17	1,326	-	220	1,563
Balance as of September 30, 2019	<u>\$</u>	48,130	183,444	447,394		25,870	704,838
Amortization:	*=						,
Balance as of January 1, 2020	\$	35,844	74,587	_	-	15,443	125,874
Amortization		3,509	68,602	-	-	4,448	76,559
Disposals		(125)	(971)	-	-	-	(1,096)
Effect of changes in foreign exchange rates	;	- ` ´	(230)	-	-	(487)	(717)
Balance as of September 30, 2020	\$	39,228	141,988	-		19,404	200,620
Balance as of January 1, 2019	\$	31,309	69,882	_	677	12,342	114,210
Effects of retrospective application for IFRS 16		_	_	_	(677)	_	(677)
Amortization		3,329	40,677	_	-	4,899	48,905
Disposals		_	(784)	_	-	-	(784)
Effect of changes in foreign exchange rates	;	_	26	-	-	105	131
Balance as of September 30, 2019	\$	34,638	109,801			17,346	161,785
Carrying value:							
Balance as of January 1, 2020	\$	13,436	113,831	443,002	_	7,185	577,454
Balance as of September 30, 2020	<u>\$</u>	9,927	291,209	439,355		6,998	747,489
Balance as of January 1, 2019	<u>\$</u>	14,696	80,989	446,068	31,914	13,286	586,953
Balance as of September 30, 2019	\$	13,492	73,643	447,394		8,524	543,053

(Continued)

Note 1: Prepayments for facilities and other current assets were reclassified as intangible assets.

As of September 30, 2020, December 31 and September 30, 2019, the intangible assets were not pledged.

(m) Other current assets and other non-current assets

		Sep	tember 30, 2020	December 31, 2019	September 30, 2019
	Other receivables from metal recycling	\$	432	16,489	23,900
	Tax refund receivables		128,075	148,896	75,019
	Prepayments to suppliers		81,182	-	4,703
	Prepaid expenses		68,671	110,080	47,689
	Restricted assets		43,172	41,580	40,151
	Refundable deposits		65,177	51,358	64,753
	Other receivables		32,076	34,028	33,012
	Long-term prepaid intangible assets		55,872	51,813	53,645
	Offset against business tax payable and input				
	taxes		132,951	80,273	64,556
	Others		27,473	14,838	21,829
		\$	635,081	549,355	429,257
(n)	Short-term borrowings				
		Sep	tember 30, 2020	December 31, 2019	September 30, 2019
	Unused bank credit lines for short-term borrowings	<u>\$</u>	1,289,244	1,153,882	1,957,500
	Unused bank credit lines for short-term and long-term borrowings	\$	2,925,403	3,276,609	3,502,700
(o)	Long-term borrowings				

	Se	eptember 30, 2020	December 31, 2019	September 30, 2019
Secured long-term borrowings (in NTD)	\$	750,000	1,620,000	2,032,800
Secured long-term syndicated borrowings				
(in USD)		2,713,575	562,125	267,720
Unsecured long-term borrowings (in NTD))	6,969,100	3,606,000	4,220,000
Less: long-term liabilities, current portion	_			
Total	\$	10,432,675	5,788,125	6,520,520
Unused bank credit lines for long-term				
borrowings	\$	11,066,668	9,221,400	6,878,600
Annual interest rate	0	.25%~1.18%	0.98%~2.88%	1.02%~2.88%
Expiry date	20	022/3/15~2025/8/16	2021/6/15~2025/8/16	2021/1/29~2025/8/16

(Continued)

Note 2: Other non-current assets were reclassified as intangible assets.

As of September 30, 2020, the remaining balances of the borrowing due were as follows:

Year due	Amount		
October 1, 2021~September 30, 2022	\$	4,194,575	
October 1, 2022~September 30, 2023		2,156,400	
October 1, 2023 and after		4,081,700	
	\$	10,432,675	

- (i) The unused bank credit lines for short-term and long-term borrowings at the reporting date were disclosed in Note 6(n).
- (ii) The collateral for these long-term borrowings was disclosed in Note 8.
- (iii) In June 2019, the Group entered into a three-year syndicated loan agreement with Far Eastern International Bank and other four banks. The total credit facility under this loan agreement is US\$200,000 thousand.

The related financial covenants and restrictions for the syndicated loans mentioned above were as follows:

- 1) At the end of reporting period, current ratio (current assets / current liabilities): shall not be lower than 100%:
- 2) Interest coverage ratio [(profit before tax + depreciation + amortization + interest expense) / interest expense)]: shall not be lower than 100%; and
- 3) Tangible net assets value (equity intangible assets): shall not be lower than NT\$15,000,000 thousand.

After the guarantor signs the loan agreement, the aforementioned financial ratio and criteria will be reviewed semi-annually, which are based on the year-end consolidated financial statements audited by the Certified Public Accountants (CPAs) that are approved by the leading bank, as well as the semi-annual consolidated financial statements reviewed by the CPAs.

For the six months ended June 30, 2020 and the year ended December 31, 2019, the Group was in compliance with the above financial covenants and restrictions.

(p) Lease liabilities

The carrying amounts of lease liabilities were as follow:

	1 /		December 31,	September 30,	
		2020	2019	2019	
Current	\$	83,443	68,740	75,596	
Non-current	\$	357,452	300,587	306,104	

For the maturity analysis, please refer to Note 6(z).

The amounts recognized in profit or loss were as follows:

	For the three months ended September 30, 2020		For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019	
Interest expenses on lease liabilities	\$	3,256	1,883	7,972	4,225	
Expenses relating to short-term leases	\$	3,274	2,412	9,916	8,629	
Expenses relating to leases of low-value assets, excluding short-term leases of low-value assets	\$	327	332	<u> </u>	<u>974</u>	

The amounts recognized in the statement of cash flows for the Group was as follows:

	Fo	r the nine	For the nine
	months ended		months ended
	September 30,		September 30,
	-	2020	2019
Total cash outflow for leases	\$	85,114	67,219

(i) Real estate and buildings leases

The Group leases land and buildings for its factories and staff dormitories. The leases of them typically run for a period of 2 to 50 years.

(ii) Other leases

The Group leases printer and transportation equipment, with lease terms of 2 to 6 years.

(iii) Others

Parts of the leases of land, transportation equipment, office and staff dormitories are with contract terms of less than one year. These leases are short-term. The Group has elected not to recognize right-of-use assets and lease liabilities for these leases. Also, some leases contain cancellation options exercisable by the Group. In which lease is not reasonably certain to use an optional extended lease term, payments associated with the optional period are not included within lease liabilities.

(q) Operating lease

There were no significant changes in operating lease for the nine months ended September 30, 2020 and 2019. Please refer to Note 6(r) of the consolidated financial statements for the year ended December 31, 2019 for other related information.

(r) Employee benefits

(i) Defined benefit plans

At the end of the prior fiscal year, there was no material volatility of the market, no material reimbursement and settlement or other material one-time events. As a result, pension cost in the consolidated interim financial statements was calculated and disclosed on a year-to-date basis by using the actuarially determined pension cost rate as of December 31, 2019 and 2018.

The Group's expenses recognized in profit or loss were as follows:

	For the three months ended September 30, 2020		For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019	
Operating costs	\$	-	-	-	-	
Operating expenses		467	902	1,400	2,708	
	\$	467	902	1,400	2,708	

(ii) Defined contribution plans

The Group's expenses under the pension plan cost to the Bureau of Labor Insurance for the three months and nine months ended September 30, 2020 and 2019 were as follows:

	For the three months ended September 30, 2020		For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019	
Operating costs	\$	22,716	20,268	66,979	56,534	
Operating expenses		6,463	5,452	17,757	16,337	
	\$	29,179	25,720	84,736	72,871	

(iii) The Group's Mainland China subsidiaries have a defined contribution plan. Monthly contributions to an independent fund administered by the government in accordance with the pension regulations in the People's Republic of China (PRC) are based on certain percentage of employees' monthly salaries and wages. Other than the monthly contributions, the Group has no further obligations. For the three months and nine months ended September 30, 2020 and 2019, the Group recognized the pension costs in accordance with the pension regulations and amounted to \$48 thousand, \$1,394 thousand, \$553 thousand and \$3,727 thousand, respectively.

(s) Income tax

(i) Income tax expense

The amount of income tax expense was as follows:

	For the three	For the three	For the nine	For the nine	
	months ended	months ended	months ended	months ended	
	September 30,	September 30,	September 30,	September 30,	
	2020	2019	2020	2019	
Income tax expense	\$ 423,371	346,018	1,192,260	613,430	

(ii) There was no income tax expense recognized in other comprehensive income for the nine months ended September 30, 2020 and 2019.

(iii) Assessment

The Company's corporate income tax returns for all the years through 2018 were assessed and approved by the tax authorities National Taxation Bureau of the Northern Area, Ministry of Finance.

(t) Capital and other equity

Except for the following disclosure, there was no significant change for capital and other equity for the periods from January 1 to September 30, 2020 and 2019. For the related information, please refer to Note 6(u) of the consolidated financial statements for the year ended December 31, 2019.

(i) Capital surplus

Balance of capital surplus at the reporting date were as follows:

	Sej	otember 30, 2020	December 31, 2019	September 30, 2019
Additional paid-in capital	\$	9,031,035	9,031,035	9,031,035
Changes in equity of associates and joint ventures accounted for using equity				- 10
method		-	-	643
Changes in ownership interests in subsidiarie	S	12,509	-	-
Employee stock options		2,549	1,452	5,913
Restricted shares of stock issued for				
employees		222,627	211,821	211,821
	\$	9,268,720	9,244,308	9,249,412

(ii) Retained earnings

The Company's Articles of Incorporation stipulate that 10% of the balance of annual income or earnings after deducting accumulated deficit, if any, must be set aside as a legal reserve and a special capital reserve is likewise appropriated or the annual income or earnings are retained in accordance with the relevant laws or regulations or as requested by the authorities. Otherwise, the Company shall set aside at least 50% for shareholder, the distribution of remaining balance of the earnings should be further proposed by the Board of Directors and resolved by the shareholders' meeting. And the cash dividends should not lower than 10% of the total stockholders' dividends.

It is authorized the distributable dividends and bonuses or legal capital reserve and capital reserve in whole or in part may be paid in cash after a resolution has been adopted by a majority vote at a meeting of the Board of Directors attended by two-thirds of the total number of directors; and in addition thereto a report of such distribution shall be submitted to the shareholders' meeting.

As the Company is a technology and capital-intensive enterprise and is in its growth phase, it has adopted a more prudent approach in appropriating its remaining earnings as its dividend policy in order to sustain its long-term capital needs and thereby maintain continuous development and steady growth.

The appropriations of earning for 2019 had been approved in the meeting of Board of Directors held on March 18, 2020 and the appropriations of earning for 2018 had been approved in shareholders' meetings held on June 14, 2019. The appropriations and dividends were as follows:

	 2019	2018
Cash dividends	\$ 2,968,394	2,118,972

The above-mentioned appropriations of earning for 2018 was consistent with the resolutions of the meeting of the Board of Directors.

The related information mentioned above can be found on websites such as the Market Observation Post System.

(iii) Other equity interests, net of tax

	Exchange differences on translation of foreign financial statements	Unrealized gains (losses) on financial assets at fair value through other comprehensive income	Other unearned compensation for restricted shares of employees
Balance as of January 1, 2020	\$ (179,450)		(137,029)
Foreign currency differences (net of tax):	\$ (179,430)	3,009,000	(137,029)
The Group	(86,156)		
Associates	9,640	-	-
Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of	7,040	00.401	-
tax) Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other	-	82,421	-
comprehensive income (net of tax) Changes in turnover of restricted shares	-	(29,371)	-
of stock issued to employees Compensation cost arising from restricted	-	-	(10,806)
shares of stock issued to employees	-	-	58,691
Balance as of September 30, 2020	\$ (255,966)	3,142,936	(89,144)
	Exchange differences on translation of foreign financial statements	Unrealized gains (losses) on financial assets at fair value through other comprehensive income	Other unearned compensation for restricted shares of employees
Balance as of January 1, 2019	differences on translation of foreign financial	gains (losses) on financial assets at fair value through other comprehensive income	compensation for restricted shares of
Foreign currency differences (net of tax):	differences on translation of foreign financial statements \$ (36,200)	gains (losses) on financial assets at fair value through other comprehensive income 958,390	compensation for restricted shares of employees
Foreign currency differences (net of tax): The Group	differences on translation of foreign financial statements \$ (36,200)	gains (losses) on financial assets at fair value through other comprehensive income 958,390	compensation for restricted shares of employees
Foreign currency differences (net of tax): The Group Associates Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of tax)	differences on translation of foreign financial statements \$ (36,200)	gains (losses) on financial assets at fair value through other comprehensive income 958,390	compensation for restricted shares of employees
Foreign currency differences (net of tax): The Group Associates Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of tax) Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other	differences on translation of foreign financial statements \$ (36,200)	gains (losses) on financial assets at fair value through other comprehensive income 958,390	compensation for restricted shares of employees
Foreign currency differences (net of tax): The Group Associates Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of tax) Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at	differences on translation of foreign financial statements \$ (36,200)	gains (losses) on financial assets at fair value through other comprehensive income 958,390 2,571,678	compensation for restricted shares of employees
Foreign currency differences (net of tax): The Group Associates Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of tax) Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other comprehensive income (net of tax)	differences on translation of foreign financial statements \$ (36,200)	gains (losses) on financial assets at fair value through other comprehensive income 958,390 2,571,678	compensation for restricted shares of employees (158,308)
Foreign currency differences (net of tax): The Group Associates Unrealized gain (losses) from financial assets measured at fair value through other comprehensive income (net of tax) Cumulative gains (losses) reclassified to retained earnings on disposal of investments in equity instruments at fair value through other comprehensive income (net of tax) Issuance of restricted shares of employees	differences on translation of foreign financial statements \$ (36,200)	gains (losses) on financial assets at fair value through other comprehensive income 958,390 2,571,678	compensation for restricted shares of employees (158,308)

(u) Share-based payment

Except for the following disclosure, there were no significant changes for share-based payment for the nine months ended September 30, 2020 and 2019. For the related information, please refer to Note 6(v) of the consolidated financial statements for the year ended December 31, 2019.

(i) The Company issuance restricted shares of stock (RSA) for employee

For the three months and nine months ended September 30, 2020 and 2019, the Company recognized the compensation cost of \$20,138 thousand, \$18,415 thousand, \$58,699 thousand and \$53,228 thousand for the aforementioned RSA, respectively.

(ii) The employee stock option (ESOPs) of subsidiary (PBL)

For the three months and nine months ended September 30, 2020 and 2019, the PBL recognized the compensation cost of \$621 thousand, \$1,534 thousand, \$1,864 thousand and \$4,600 thousand for the aforementioned ESOPs, respectively.

(v) Earnings per share ("EPS")

	For the three months ended September 30, 2020	For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019
Basic earnings per share:				
Profit belonging to common shareholders	\$ 1,978,942	1,649,955	5,233,206	2,612,583
Weighted average number of outstanding shares of common stock (in thousands shares)	422,666	422,666	422,666	422,666
Basic earnings per share (in dollars)	\$ 4.68	3.90	12.38	6.18
Diluted earnings per share:				
Profit belonging to common shareholders	\$ 1,978,942	1,649,955	5,233,206	2,612,583
Weighted average number of outstanding shares of common stock (in thousands shares)	422,666	422,666	422,666	422,666
Effect of potentially dilutive common stock				
Employee remuneration (in thousands shares)	1,511	779	1,984	1,150
Restricted employee shares (in thousands shares)	1,104	756	1,086	593
Weighted-average number of common stock (diluted) (in thousands shares)	425,281	424,201	425,736	424,409
Diluted earnings per share (in dollars)	\$ 4.65	3.89	12.29	6.16

(w) Revenue from contracts with customers

(i) Disaggregation of revenue

		For the th	ree months end	ed September 3	0, 2020
		Segment- Foundry	Segment- Agriculture technology	Segment- Others	Total
Primary geographical markets:		_			
Asia	\$	4,306,935	16,956	401	4,324,292
Americas		1,438,728	-	7,147	1,445,875
Taiwan		433,591	-	83,539	517,130
Europe	_	279,081			279,081
	\$	6,458,335	16,956	91,087	6,566,378
Main product/ services lines:	-				
Foundry	\$	6,456,316	-	-	6,456,316
Others		2,019	16,956	91,087	110,062
	\$	6,458,335	16,956	91,087	6,566,378
		For the th	ree months end Segment- Agriculture	ed September 3 Segment-	0, 2019
	_	Foundry	technology	Others	Total
Primary geographical markets:					
Asia	\$	4,222,389	237,605	1,543	4,461,537
Americas		1,117,029	-	-	1,117,029
Taiwan		578,006	-	29,866	607,872
Europe	-	217,181			217,181
	\$	6,134,605	237,605	31,409	6,403,619
Main product/ services lines:					
Foundry	\$	6,134,605	-	-	6,134,605
Others	_	_	237,605	31,409	269,014
	\$	6,134,605	237,605	31,409	6,403,619

	For the nine months ended September 30, 2020				
		Segment- Foundry	Segment- Agricultur technology	e Segment-	Total
Primary geographical markets:					
Asia	\$	12,409,912	34,14	43 1,264	12,445,319
Americas		4,108,631	-	21,740	4,130,371
Taiwan		1,068,074	-	145,472	1,213,546
Europe		895,889			895,889
	\$	18,482,506	34,14	168,476	18,685,125
Main product/ services lines:	•				
Foundry	\$	18,480,259	-	-	18,480,259
Others	_	2,247	34,14	168,476	204,866
	\$	18,482,506	34,14	168,476	18,685,125
	_	For the n		ended September	r 30, 2019
		Segment- Foundry	Segment- Agricultur technology	e Segment-	Total
Primary geographical markets:	_	<u> </u>			
Asia	\$	9,405,052	422,28	5,186	9,832,524
Americas		2,572,598	-	-	2,572,598
Taiwan		1,298,586	-	55,695	1,354,281
Europe	_	714,685			714,685
	\$	13,990,921	422,28	86 60,881	14,474,088
Main product/ services lines:	•				
Foundry	\$	13,990,100	-	-	13,990,100
Others		821	422,23	86 60,881	483,988
	\$	13,990,921	422,28	<u>60,881</u>	14,474,088
Balance of contracts					
		Sept	ember 30, 2020	December 31, 2019	September 30, 2019
Notes receivable		\$	829	684	1,178
Accounts receivable			1,765,177	2,410,333	2,223,295
Less: loss allowance			(4,357)	(4,344)	(4,543)
		\$	1,761,649	2,406,673	2,219,930
Contract liabilities		\$	264,021	260,426	185,768

For details of notes and accounts receivable and allowance for impairment, please refer to Note 6(c).

(ii)

The major change in the balance of contract liabilities is the difference between the time frame in the performance obligation to be satisfied and the payment to be received. The amount of revenue recognized for the nine months ended September 30, 2020 and 2019, that was included in the contract liabilities balance at the beginning of the period was \$233,716 thousand and \$89,999 thousand, respectively.

(x) Employees' and directors' remuneration

According to the Company's Article of Incorporation, if there is any net profit after closing of a fiscal year, it shall be allocated according to the following principles:

- (i) Employees' remuneration: not less than 5% but no more than 10% and shall be determined and pursuant to Employee Bonus Procedure of the Company. In addition, employee's profit-sharing remuneration shall be distributed in the form of shares or cash. Stock-type employee remuneration may be distributed to qualified employees of affiliates of the Company.
- (ii) Remuneration of Directors: no more than 3%.

However, if there are any accumulated losses of the Company, the Company shall pre-reserve the amount to offset the loss. The distribution of employees' profit-sharing bonus and remuneration of Directors shall follow the special resolution by Board of Directors, and report it to the shareholders' meeting.

The Company estimated its employees' and directors' remuneration as follows:

	months ended		For the three months ended September 30, 2019	months ended	For the nine months ended September 30, 2019
Employees' remuneration	\$	165,900	134,600	433,000	217,000
Directors' remuneration		48,200	39,100	125,700	63,000
	\$	214,100	173,700	558,700	280,000

The amount of employee remuneration, and directors' remuneration were estimated based on profit before tax, net of the amount of the remuneration, and multiplied by the rule of Company's Article of Incorporation. The above remuneration was included in the operating costs and operating expenses of for the nine months ended September 30, 2020 and 2019. The differences between the actual distributed amounts as determined by the Board of Directors and those recognized in the financial statements, if any, shall be accounted for as changes in accounting estimates and recognized in profit or loss in the following year.

For the years ended December 31, 2019 and 2018, the Company accrued and recognized its employee remuneration amounting to \$368,400 thousand and \$255,600 thousand, and directors' remuneration amounting to \$106,900 thousand and \$74,200 thousand, respectively. There were no differences between the actual distributed amounts as determined by the Board of Directors and those recognized in the financial statements.

The related information mentioned above can be found on websites such as the Market Observation Post System.

(y) Non-operating income and expenses

(i) Interest income

		For the three months ended September 30, 2020		For the nine months ended September 30, 2020	For the nine months ended September 30, 2019
	Interest income from bank deposits Interest income from	\$ 4,16	1 13,911	25,630	49,309
	financial assets measured at amortized cost	-	-	-	205
	Other interest income		<u>3</u> <u>5</u>	35	42
	Total	\$4,16			49,556
(ii)	Other income				
		For the three months ended September 30, 2020	months ended	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019
	Dividend income	\$ 146,48	0 86,213	152,976	112,681
	Rent income	18,50	9 20,662	56,264	65,607
	Total	\$ 164,98	9 106,875	209,240	178,288
(iii)	Other gains and losses				
		For the three months ended September 30, 2020	For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019
	Losses on disposals of property, plant and				
	equipment Gains (losses) on	\$ (2,54	1) (288,446)	(3,607)	(289,249)
	disposals of investments	-	(31,696)	-	47,970
	Foreign exchange gains	(20.72	1) 10.206	(22.511)	(2.052
	(losses) Gains (losses) on financial assets or liabilities at fair value through profit or loss	(30,73 48,29		(32,511)	
	Others	8,73		57,582	52,439
	Total	\$ 23,75			(58,060)

(Continued)

(iv) Finance costs

	moi	the three of the ended tember 30, 2020	For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019	
Interest expenses	\$	24,898	16,451	61,224	29,213	
Other finance costs		61	62	188	190	
Total	\$	24,959	16,513	61,412	29,403	

(z) Financial instruments

Except for the contention mentioned below, there was no significant change in the fair value of the Group's financial instruments and degree of exposure to credit risk, liquidity risk and market risk arising from financial instruments. For the related information, please refer to Note 6(aa) of the consolidated financial statements for the year ended December 31, 2019.

(i) Credit risk

Receivables and debt securities

For information on credit risk regarding notes and accounts receivable, please refers to Note 6(c).

Other financial assets measured at amortized cost include other receivables. For related information of investment and impairment, please refers to Notes 6(d).

All of these financial assets are considered to have low risk, and thus, the impairment provision recognized during the period was limited 12 months expected losses.

(ii) Liquidity risk

The following were the contractual maturities of financial liabilities:

		Carrying amount	Contractual cash flows	Within 1 year	1-2 years	2-5 years	Over 5 years
As of September 30, 2020							
Non-derivative financial liabilities							
Secured bank loans	\$	3,463,575	3,572,571	24,832	2,785,364	762,375	-
Unsecured bank loans		6,969,100	7,092,071	44,797	1,521,288	5,525,986	-
Notes and accounts payable		1,821,083	1,821,083	1,821,083	-	-	-
Other payables		2,745,175	2,745,175	2,745,175	-	-	-
Guarantee deposits received		124,520	124,520	6,174	8,346	110,000	-
Lease liabilities		440,895	579,738	84,844	62,999	140,223	291,672
	\$	15,564,348	15,935,158	4,726,905	4,377,997	6,538,584	291,672
As of December 31, 2019	=						
Non-derivative financial liabilities							
Secured bank loans	\$	2,182,125	2,329,782	33,800	33,800	1,900,796	361,386
Unsecured bank loans		3,606,000	3,712,122	39,312	1,068,695	2,277,837	326,278
Notes and accounts payable		1,826,214	1,826,214	1,826,214	-	_	-
Other payables		1,288,817	1,288,817	1,288,817	-	-	-
Guarantee deposits received		125,611	125,611	15,611	-	110,000	-
Lease liabilities		369,327	495,192	69,764	47,590	102,056	275,782
	\$	9,398,094	9,777,738	3,273,518	1,150,085	4,390,689	963,446
							'antinuad)

(Continued)

	Carrying amount	Contractual cash flows	Within 1 year	1-2 years	2-5 years	Over 5 years
As of September 30, 2019						
Non-derivative financial liabilities						
Secured bank loans	\$ 2,300,520	2,411,848	32,230	238,608	1,748,503	392,507
Unsecured bank loans	4,220,000	4,347,046	46,406	1,221,056	2,752,347	327,237
Notes and accounts payable	1,753,748	1,753,748	1,753,748	-	-	-
Other payables	949,685	949,685	949,685	-	-	-
Guarantee deposits received	128,339	128,339	12,334	26	115,979	-
Lease liabilities	381,700	514,667	77,083	53,640	105,257	278,687
	\$ 9,733,992	10,105,333	2,871,486	1,513,330	4,722,086	998,431

The Group did not expect that the cash flows included in the maturity analysis could occur significantly earlier or at significantly different amounts.

(iii) Currency risk

1) Exposure to currency risk

The Group's significant exposure to foreign currency risk were as follows:

		September 30, 2020			December 31, 2019			Sep	September 30, 2019		
		Foreign	Excha	_	NITTO	Foreign	Exchange	NITTO	Foreign	Exchange	NUMBER
Financial assets	_	currency	rat	e	NT\$	currency	rate	NT\$	currency	rate	NT\$
· ·											
Monetary items											
USD	\$	151,580	2	9.10	4,410,986	206,117	29.98	6,179,373	159,980	31.04	4,965,776
EUR		433	3	4.15	14,802	75	33.59	2,531	199	33.95	6,759
JPY		3,891,199	0.2	2756	1,072,415	1,321,385	0.2760	364,702	130,360	0.2878	37,518
GBP		11	3	7.30	411	11	39.36	433	11	38.20	420
HKD		60	3	.754	226	51,537	3.85	198,365	121,089	3.96	479,271
RMB		1,171		4.27	5,000	-	-		954	4.35	4,149
					\$ <u>5,503,840</u>			\$ <u>6,745,404</u>			§ <u>5,493,893</u>
Non-monetary item	18										
USD	\$	13,097	2	9.10	381,108	10,570	29.98	318,268	9,170	31.04	287,706
RMB		131,787		4.27	561,123	110,112	4.31	472,528	111,330	4.35	482,571
					\$ <u>942,231</u>			\$ <u>790,796</u>			§ 770,277
Financial liabilities											
Monetary items											
USD	\$	116,333	2	9.10	3,385,276	57,240	29.98	1,716,041	36,575	31.04	1,135,303
EUR		190	3	4.15	6,504	866	33.59	29,075	443	33.95	15,029
JPY		729,481	0.2	2756	201,045	595,366	0.2760	164,321	356,938	0.2878	102,727
RMB		2		4.27	6	-	-		37	4.35	163
					\$ <u>3,592,831</u>			\$ <u>1,909,437</u>			§ 1,253,222

2) Sensitivity analysis

The Group's exposure to foreign currency risk arises from the translation of the foreign currency exchange gains and losses on cash and cash equivalents, notes and accounts receivable, other receivables, financial assets at fair value through profit or loss, notes and accounts payable, other payables and long-term borrowings that are denominated in foreign currency. A strengthening (weakening) 5 % of appreciation (depreciation) of the NTD against the USD, EUR, GBP, JPY, HKD, RMB, etc. for the nine months ended September 30, 2020 and 2019 would have increased (decreased) the net profit after tax by \$91,685 thousand and \$178,567 thousand, respectively. The analysis assumes that all other variables remain constant.

3) Exchange gains or losses

Since the Group has many kinds of functional currency, the information on foreign exchange gains (losses) on monetary items is disclosed by total amount. For nine months ended September 30, 2020 and 2019, foreign exchange gains (losses) (including realized and unrealized portions) amounted to \$(32,511) thousand and \$62,953 thousand, respectively.

(iv) Interest rate risk

Please refer to the attached note for the liquidity risk and the Group's interest rate exposure to its financial liabilities.

The following sensitivity analysis is based on the risk exposure to interest rates on the nonderivatives financial instruments on the reporting date. For variable rate instruments, the sensitivity analysis assumes the variable rate liabilities are outstanding for the whole year on the reporting date.

If the interest rate increases (decreases) by 0.5%, the Group's net profit after tax would have increased (decreased) by \$19,930 thousand and \$14,428 thousand for the nine months ended September 30, 2020 and 2019, respectively, all other variable factors that remain constant. This is mainly due to the Group's borrowing in floating rates.

(v) Fair value

1) Accounting classifications and fair values

The fair value of financial assets at fair value through profit or loss and financial assets at fair value through other comprehensive income are measured on a recurring basis. The carrying amount and fair value of the Group's financial assets and liabilities, including the information on fair value hierarchy were as follows; however, except as described in the following paragraphs, for financial instruments not measured at fair value whose carrying amount is reasonably close to the fair value, and lease liabilities disclosure of fair value information is not required.

			September 30, 2020				
			•	Fair v	alue		
	Car	rying value	Level 1	Level 2	Level 3	Total	
Financial assets at fair value through profit or loss			244 420			244 420	
Stocks listed on domestic markets	\$	241,438	241,438	-	-	241,438	
Funds and investment		856,600	856,600	-	-	856,600	
Private fund Subtotal	_	709,218	1 000 020		709,218	709,218	
Financial assets at fair value through other comprehensive income	\$	1,807,256	1,098,038		709,218	1,807,256	
Stocks listed on domestic and foreign markets	\$	1.064.657	4.064.657			1.061.657	
Non-public stocks	э	4,964,657 1,066,652	4,964,657	-	1,066,652	4,964,657 1,066,652	
Subtotal		6,031,309	4,964,657	 .	1,066,652	6,031,309	
Financial assets measured at amortized cost	³ <u> </u>	0,031,309	4,904,037	:	1,000,032	0,031,309	
Cash and cash equivalents (Note)	\$	6,708,999	_	_	_	_	
Notes and accounts receivable (Note)	Φ	1,761,649	-	-	-	-	
Other receivables (Note)		32,508	-	-	-	-	
Other non-current assets (Note)		108,349	-	-	-	-	
Subtotal	<u>s</u>	8,611,505					
Financial liabilities measured at amortized cost	_	0,011,505		:	=		
Bank loans (Note)	\$	10,432,675	_	_		_	
Notes and accounts payable (Note)	Ψ	1,821,083	_	_	_	_	
Other payables (Note)		2,745,175	_	_	_	_	
Guarantee deposits received (Note)		124,520	_	_	_	_	
Lease liabilities (Note)		440,895	_	-	_	_	
Subtotal	s	15,564,348				_	
	_				=		
			Dec	ember 31, 2019 Fair v	alua		
	Car	rying value	Level 1	Level 2	Level 3	Total	
Financial assets at fair value through profit or loss		- , g ·					
Stocks listed on domestic markets	\$	206,359					
Funds and investment			206,359	-	-	206,359	
runus anu mivesiment				-	-	, , , , , , , , , , , , , , , , , , ,	
		300,490	206,359 300,490	-	- - 565 804	300,490	
Private fund		300,490 565,804	300,490	- - -	565,804	300,490 565,804	
Private fund Subtotal	s	300,490		- - - -	565,804 565,804	300,490	
Private fund Subtotal Financial assets at fair value through other comprehensive income		300,490 565,804 1,072,653	300,490 - 506,849	- - -		300,490 565,804 1,072,653	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets	\$ \$\$	300,490 565,804 1,072,653 3,855,958	300,490	- - - -	565,804	300,490 565,804 1,072,653 3,855,958	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks		300,490 565,804 1,072,653 3,855,958 700,247	300,490 - 506,849 - 3,855,958	- - - - - - -	- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal		300,490 565,804 1,072,653 3,855,958	300,490 - 506,849	- - - - - - - - -	565,804	300,490 565,804 1,072,653 3,855,958	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost	\$ 	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205	300,490 - 506,849 - 3,855,958	- - - - - - - - -	- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note)		300,490 565,804 1,072,653 3,855,958 700,247	300,490 - 506,849 - 3,855,958	- - - - - - - - -	- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost	\$ 	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205	300,490 - 506,849 - 3,855,958	- - - - - - - - - - -	- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note)	\$ 	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473	300,490 - 506,849 - 3,855,958		- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note) Notes and accounts receivable (Note)	\$ 	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473 2,406,673	300,490 - 506,849 - 3,855,958	- - - - - - - - - -	- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note) Notes and accounts receivable (Note) Other receivables (Note)	\$ 	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473 2,406,673 50,517	300,490 - 506,849 - 3,855,958	- - - - - - - - - -	- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note) Notes and accounts receivable (Note) Other receivables (Note) Other non-current assets (Note)	\$ 	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473 2,406,673 50,517 92,938	300,490 - 506,849 - 3,855,958	- - - - - - - - - - - - -	- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note) Notes and accounts receivable (Note) Other receivables (Note) Other non-current assets (Note) Subtotal	\$ 	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473 2,406,673 50,517 92,938	300,490 - 506,849 3,855,958	- - - - - - - - - - - - - - - -	- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note) Notes and accounts receivable (Note) Other receivables (Note) Other non-current assets (Note) Subtotal Financial liabilities measured at amortized cost	\$ \$ \$	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473 2,406,673 50,517 92,938 8,476,601	300,490 - 506,849 3,855,958	- - - - - - - - - - - - - - - - - - -	- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note) Notes and accounts receivable (Note) Other receivables (Note) Other non-current assets (Note) Subtotal Financial liabilities measured at amortized cost Bank loans (Note)	\$ \$ \$	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473 2,406,673 50,517 92,938 8,476,601 5,788,125	300,490 - 506,849 3,855,958		- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note) Notes and accounts receivable (Note) Other receivables (Note) Other non-current assets (Note) Subtotal Financial liabilities measured at amortized cost Bank loans (Note) Notes and accounts payable (Note) Other payables (Note)	\$ \$ \$	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473 2,406,673 50,517 92,938 8,476,601 5,788,125 1,826,214 1,288,817	300,490 - 506,849 3,855,958		- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note) Notes and accounts receivable (Note) Other receivables (Note) Other non-current assets (Note) Subtotal Financial liabilities measured at amortized cost Bank loans (Note) Notes and accounts payable (Note) Other payables (Note) Guarantee deposits received (Note)	\$ \$ \$	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473 2,406,673 50,517 92,938 8,476,601 5,788,125 1,826,214 1,288,817 125,611	300,490 - 506,849 3,855,958		- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	
Private fund Subtotal Financial assets at fair value through other comprehensive income Stocks listed on domestic and foreign markets Non-public stocks Subtotal Financial assets measured at amortized cost Cash and cash equivalents (Note) Notes and accounts receivable (Note) Other receivables (Note) Other non-current assets (Note) Subtotal Financial liabilities measured at amortized cost Bank loans (Note) Notes and accounts payable (Note) Other payables (Note)	\$ \$ \$	300,490 565,804 1,072,653 3,855,958 700,247 4,556,205 5,926,473 2,406,673 50,517 92,938 8,476,601 5,788,125 1,826,214 1,288,817	300,490 - 506,849 3,855,958		- 700,247	300,490 565,804 1,072,653 3,855,958 700,247	

	September 30, 2019								
			•	Fair va	llue				
	Ca	rrying value	Level 1	Level 2	Level 3	Total			
Financial assets at fair value through profit or loss									
Derivative financial assets	\$	299	-	299	-	299			
Stocks listed on domestic markets		424,143	424,143	-	-	424,143			
Funds and investment		296,034	296,034	-	-	296,034			
Private fund		695,840			695,840	695,840			
Subtotal	\$	1,416,316	720,177	299	695,840	1,416,316			
Financial assets at fair value through other comprehensive inc	ome								
Stocks listed on domestic and foreign markets	\$	4,291,712	4,291,712	-	-	4,291,712			
Non-public stocks		620,161			620,161	620,161			
Subtotal	\$	4,911,873	4,291,712		620,161	4,911,873			
Financial assets measured at amortized cost	_								
Cash and cash equivalents (Note)	\$	4,993,252	-	-	-	-			
Notes and accounts receivable (Note)		2,219,930	-	-	-	-			
Other receivables (Note)		56,912	-	-	-	-			
Other non-current assets (Note)		40,151							
Subtotal	\$	7,310,245	-	-	-	-			
Financial liabilities measured at amortized cost	_								
Bank loan (Note)	\$	6,520,520	-	-	-	-			
Notes and accounts payable (Note)		1,753,748	-	-	-	-			
Other payables (Note)		949,685	-	-	-	-			
Guarantee deposits received (Note)		128,339	-	-	-	-			
Lease liabilities (Note)		381,700			-				
Subtotal	\$	9,733,992				-			

Note: The information on fair value is not disclosed since the carrying amount is a reasonable approximation of fair value.

2) Valuation techniques of financial instrument not valued at fair value

The valuation techniques of the Group's financial instruments not valued at fair value by using the methods and assumptions are as follows:

• Financial assets measured at amortized cost and financial liabilities measured at amortized cost.

If recent transaction prices or market maker quotes are available, the fair value is based on such information. If there is no quoted market price available, the fair value is determined by using valuation techniques and calculated as the present value of the estimated cash flows.

- 3) Valuation techniques of financial instruments valued at fair value
 - a) Non-derivative instruments

The fair value of financial assets and liabilities traded in an active market is based on the quoted market prices. The quotation, which is published by the main exchange center or that which was deemed to be a public bond by the Treasury Bureau of Central Bank, is included in the fair value of the listed securities instruments and the debt instruments in active markets with open bid.

A financial instrument is regarded as the quoted price in an active market if the quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service or regulatory agency; and if those prices represent the actual and regularly occurring market transactions on an arm's length basis.

Otherwise, the market is deemed to be inactive. Normally, a market is considered to be inactive when:

- The bid-ask spread is increasing; or
- The bid-ask spread varies significantly; or
- There has been a significant decline in trading volume.

When the financial instrument of the Group is traded in an active market, its fair value is illustrated by the category and nature as follows:

- Financial assets and liabilities with standard terms and conditions and traded in an active market, for example, investment in stock of listed companies: the fair value is based on the market quoted price.
- Close-end funds with standard terms and conditions, such as equity funds and
 money market funds; investors can require the investment trust company to
 redeem the fund at any time. The fair value is based on the net value of the fund.

Except for the above-mentioned financial instruments traded in an active market, the fair value is based on the valuation techniques or the quotation from the counterparty. The fair value refers to the current fair value of the other financial instruments with similar conditions and characteristics, using a discounted cash flow analysis or other valuation techniques, such as calculations of using models (for example, applicable yield curve from Taipei Exchange, or average quoted price on interest rate of commercial paper from Reuters), based on the information acquired from the market at the balance sheet date.

When the financial instrument of the Group is not traded in an active market, its fair value is determined as follows:

- The fair value is determined based on the ratio of the quoted market price of the comparative listed company and its book value per share. Also, the fair value is discounted for its lack of liquidity in the market.
- The fair value is determined by using the asset-based approach, whose assumptions are based on the market approach, income approach, cost approach or other valuation methods according to the nature of the assets or liabilities of the subject companies.

b) Derivative instruments

The fair value is determined by using the models that are acceptable to the market participants, for example, discounted cash flow analyses or option pricing models. Forward exchange contracts are measured using quoted forward exchange rates. The fair value of structured interest derivative financial instruments is determined by using the proper option pricing models, such as Black-Scholes model, or other valuation technique, such as Monte Carlo simulation.

4) Transfer between level 2 and level 1

For nine months ended September 30, 2020 and 2019, there was no transfer between level 2 and level 1 financial asset of the fair value hierarchy.

5) Movement of level 3

	F	air value through profit or loss	Fair value through other comprehensive income
		Private fund	Unquoted equity instruments
Balance as of January 1, 2020	\$	565,804	700,247
Total gains or losses:			
Recognized in profit and loss		(36,434)	-
Recognized in other comprehensive incom	e	-	23,977
Purchased		179,848	380,937
Disposals		-	(30,285)
Capital reduction		-	(6,667)
Effect of changes in foreign exchange rates	_		(1,557)
Balance as of September 30, 2020	\$_	709,218	1,066,652
Balance as of January 1, 2019	\$	722,405	564,486
Total gains or losses:			
Recognized in profit and loss		(33,012)	-
Recognized in other comprehensive incom	e	-	79,048
Purchased		98,431	-
Disposals		(91,984)	(17,273)
Capital reduction and redemption		-	(6,667)
Effect of changes in foreign exchange rates			567
Balance as of September 30, 2019	\$_	695,840	620,161

The preceding gains and losses were recognized as "other gains and losses" and "unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income". As of September 30, 2020 and 2019, the related information of the assets which were still held by the Group were as follows:

	mont Septe	he three hs ended mber 30,	For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019	
Total gains or losses						
Profit or loss (recognized as other gains and losses)	\$	25,191	43,235	(36,434)	(33,012)	
Other comprehensive income (recognized as unrealized gains (losses) from investments in equity instruments measured at fair value through other comprehensive income)		23,660	161,472	(5,394)	79,048	

6) Quantified information on significant unobservable inputs (Level 3) used in fair value measurement

The Group's financial instruments that use Level 3 inputs to measure fair value include "financial assets at fair value through profit or loss – private funds" and "financial assets at fair value through other comprehensive income – equity investments."

Most of the fair value measurements categorized within Level 3 use the single and significant unobservable input. Equity investments without an active market contains multiple significant unobservable inputs. The significant unobservable inputs of the equity investments are independent from each other, as a result, there is no relevance between them.

Quantified information of significant unobservable inputs was as follows:

Item	Valuation technique	Significant unobservable inputs	Inter-relationship between significant unobservable inputs and fair value measurement
Financial assets at fair value through other comprehensive income – equity investments without an active market	Comparable listed companies approach	 Price-book ratio (as of September 30, 2020, December 31 and September 30, 2019 were 1.68~7.98, 1.65~6.14 and 1.22~7.14, respectively) Market liquidity discount rate (as of September 30, 2020, December 31 and September 30, 2019 were all 80% of market value) 	 The higher the price-book ratio, the higher the fair value The higher the market liquidity discount rate, the lower the fair value
	 Net asset value method 	Net asset value	Not applicable
Financial assets at fair value through profit or loss – private fund	 Net asset value method 	Net asset value	Not applicable

7) Sensitivity analysis of reasonably possible alternative assumptions for fair value measurements in Level 3 of the fair value hierarchy

The fair value measurements of the Group's financial instruments are reasonable. However, changes in the use of valuation models or valuation variables may affect the estimations. For fair value measurements in Level 3, a fluctuation in the valuation variable by 5% would have the following effect:

			1		anges in fair	Effects of changes in fair value on other comprehensive income		
	Increase or decrease			Favorable	<u>Unfavorable</u>	Favorable	<u>Unfavorable</u>	
September 30, 2020								
Financial assets at fair value through profit or loss								
Private fund	Net asset value	5%	\$	35,461	(35,461)	-	-	
Financial assets at fair value through other comprehensive income								
Equity investments without an active market	Price-book ratio	5%		-	-	34,699	(34,699)	
n,	Market liquidity discount rate	5%		-	-	34,699	(34,699)	
"	Net asset value	5%		-	-	18,633	(18,633)	
December 31, 2019								
Financial assets at fair value through profit or loss								
Private fund	Net asset value	5%	\$	28,290	(28,290)	-	-	

			_		anges in fair rofit or loss	Effects of changes in fair value on other comprehensive income		
Financial assets at fair value	Inputs	Increase or decrease	_	Favorable	<u>Unfavorable</u>	Favorable	<u>Unfavorable</u>	
through other comprehensive income								
Equity investments without an active market	Price-book ratio	5%	\$	-	-	18,939	(18,939)	
"	Market liquidity discount rate	5%		-	-	18,939	(18,939)	
//	Net asset value	5%		-	-	16,074	(16,074)	
September 30, 2019								
Financial assets at fair value through profit or loss								
Private fund	Net asset value	5%	\$	34,792	(34,792)	-	-	
Financial assets at fair value through other comprehensive income								
Equity investments without an active market	Price-book ratio	5%		-	-	22,281	(22,281)	
"	Market liquidity discount rate	5%		-	-	22,281	(22,281)	
//	Net asset value	5%		-	-	8,727	(8,727)	

The favorable and unfavorable effects represent the changes in fair value, and fair value is based on a variety of unobservable inputs calculated using a valuation technique. The analysis above only reflects the effects of changes in a single input, and it does not include the inter-relationships with another input.

(aa) Management of financial risk

There was no significant change in the Group's objective and policies for the management of financial risk of the consolidated financial statements for the nine months ended September 30, 2020 which compared with the consolidated financial statements Note 6(ab) for the year ended December 31, 2019.

(ab) Capital management

The Group's objective, policies and process of capital management of the consolidated financial statements for the nine months ended September 30, 2020 was the same as the consolidated financial statements for the year ended December 31, 2019. There was no significant change on summary of quantitative date of capital management compared with the consolidated financial statements for the year ended December 31, 2019. For the related information, please refer to Note 6(ac) of the consolidated financial statements for the year ended December 31, 2019.

(ac) Financing activity

Reconciliation of liabilities arising from financing activities were as follows:

				Cash flows		Non-cash changes				
	Janu	ıary 1, 2020	Proceeds from long- term debt	Repayments of long-term debt and lease liabilities	Others	Interest expense	Others	Amortization of arranger fee of syndicated loan	September 30, 2020	
Long-term borrowings	\$	5,788,125	7,301,803	(2,632,500)	-	-	(47,115)	22,362	10,432,675	
Guarantee deposit received		125,611	-	-	(1,091)	-	-	-	124,520	
Lease liabilities (Note 1)		369,327		(72,439)	(1,782)	11,187	134,602		440,895	
Total liabilities from financing activity	s	6,283,063	7,301,803	(2,704,939)	(2,873)	11,187	87,487	22,362	10,998,090	
				Cash flows		N	Non-cash changes			
			Proceeds from long-	Repayments of long-term debt and lease		Interest		Amortization of arranger fee of syndicated	September 30,	
	Janu	ary 1, 2019	term debt	liabilities	Others	expense	Others	loan	2019	
Long-term borrowings	\$	5,802,600	4,272,765	(3,556,800)	-	-	(1,945)	3,900	6,520,520	
Guarantee deposit received		143,068	-	-	(14,729)	-	-	-	128,339	
Lease liabilities (Note 2)		290,061		(56,420)	(1,196)	8,494	140,761		381,700	
Total liabilities from financing activity	s	6,235,729	4,272,765	(3,613,220)	(15,925)	8,494	138,816	3,900	7,030,559	

Note 1: Interest expense includes capitalized interest expense transferred to construction in progress, which amounted to \$3,215 thousand.

(7) Related-party transactions:

(a) Names and relationship with related parties

The followings are entities that have had transactions with related party during the periods covered in the consolidated financial statements:

Name of related party	Relationship with the Group
Jiangsu CM/Chainwin Agriculture Development Co., Ltd.	Associates
Winresp INC. (Note 1)	Associates
Ningbo Winresp New Materials Co., Ltd. (Note 1)	Other related parties
Chainwin i-Management (Shanghai) Co., Ltd. Huaian Branch	Other related parties
Chainwin i-Management Co., Ltd.	Other related parties
Chainwin i-Management (Huaian) Co., Ltd.	Other related parties
Taoyuan i-Fare Charity Foundation	Other related parties
ITEQ Corporation (Note 2)	Other related parties

Note 1: The Company has lost the control over Winresp INC. and Ningbo Winresp New Materials Co., Ltd. since December 2019. Therefore, they were not a related-party of the Group.

Note 2: In July 2019, the Company's chairman of the Board of Directors has been elected as the ITEQ Corporation's chairman of the Board of Directors, and therefore ITEQ Corporation has become the Group's other related parties since July 2019.

(Continued)

Note 2: Interest expense includes capitalized interest expense transferred to construction in progress, which amounted to \$4,269 thousand.

(b) Significant transactions with related parties

(i) Purchases

The amounts of significant purchases by the Group from related parties were as follows:

	For the three	For the three	For the nine	For the nine
	months ended	months ended		months ended
	September 30,	September 30,	September 30,	September 30,
	2020	2019	2020	2019
Other related parties	\$ 135	896	368	3,637

The terms and pricing of purchase transactions with related parties were not significantly different from those offered by other vendors.

(ii) Operating expenses

The amounts of operating expenses by the Group from related parties were as follows:

	For the three	For the three	For the nine	For the nine
	months ended	months ended		months ended
	September 30,	September 30,	September 30,	September 30,
	2020	2019	2020	2019
Other related parties	\$		2,000	1,000

(iii) Guarantee

As of September 30, 2020, December 31, and September 30, 2019, Chainwin Cayman had provided a guarantee for loans amounting to US\$7,350 thousand (NT\$213,885 thousand, \$220,353 thousand and NT\$228,144 thousand, respectively) to its associate, Jiangsu CM/Chainwin Agriculture Development Co., Ltd.

(iv) Property transactions

Account	Category	mon	the three oths ended ember 30, 2020	For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019
Intangible assets	Other related parties —					
	Chainwin i-Management Co., Ltd.	s			162,965	16,335
Property, plant and equipment	Other related parties	\$	-	9,322		15,684

(v) Prepayment to related parties

The prepayment due to property transactions to related parties were as follows:

Account	Category	Sep	tember 30, 2020	December 31, 2019	September 30, 2019
Prepayments for business facilities	Associates	<u>\$</u>	-		21,842
Other non-current assets	Other related parties — Chainwin i-Management Co., Ltd.	\$	-	15,777	16,335

(vi) Leases

The Group leased the office and factories to its other related party, ITEQ Corporation, and the rent income received monthly is based on the nearby office and factories rental rates. The amount of rent income is \$7,252 thousand, \$7,211 thousand and \$21,757 thousand for the three months ended September 30, 2020 and 2019, and the nine months ended September 30, 2020. The preceding rent payment has been received. The guarantee deposits received amounted to \$110,000 thousand as of September 30, 2020, December 31, and September 30, 2019.

(c) Transactions with key management personnel

Key management personnel compensation was comprised as below:

	me	onths ended	For the three months ended September 30, 2019	For the nine months ended September 30, 2020	For the nine months ended September 30, 2019
Short-term employee benefits	\$	178,351	147,359	491,206	331,435
Post-employment benefits		206	206	619	616
	\$	178,557	147,565	491,825	332,051

(8) Pledged assets:

The carrying amount of pledged assets were as follows:

Pledged assets	Pledged to secure	September 30, 2020	December 31, 2019	September 30, 2019
Other non-current assets	Bank deposits - reserve accounts	\$ 5,965	4,197	2,328
Other non-current assets	Gas deposits	4,700	4,700	4,700
Other non-current assets	Customs guarantee with interest	20,430	20,242	20,242
Other non-current assets	Plant deposits	12,077	12,441	12,881
Property, plant and equipment	Long-term borrowings	2,022,006	2,382,554	2,707,493
Investment property	Long-term borrowings	325,281	336,574	344,103
Total		\$ 2,390,459	2,760,708	3,091,747

(9) Commitments and contingencies:

(a) Contingencies: None.

(b) Commitment:

(i) The unrecognized commitment of acquisition of plant expansion and machinery equipment were as follows:

		Sept	ember 30, 2020	December 31, 2019	September 30, 2019	
The unrecognized	amount	\$	3,806,238	3,353,094	4,530,766	
		Septe	ember 30, 2020	December 31, 2019	September 30, 2019	
(ii) The unused letters	of credit	\$	48,853	206,008	3,398	

(10) Losses due to major disasters: None.

(11) Subsequent events:

- (a) The Company's subsidiary, Win Semiconductors Cayman Islands Co., Ltd., resolved to issue 50,000 thousand shares at US\$1 per share, as proposed in the Board of Director's meeting held on October 8, 2020.
- (b) The Company resolved to subscribe the new shares contributed by its subsidiary, Win Semiconductors Cayman Islands Co., Ltd., for 50,000 thousand shares, with par value US\$1 per share, as proposed in the Board of Director's meeting held on October 8, 2020.
- (c) The Company's subsidiary, Win Semiconductors Cayman Islands Co., Ltd., resolved to subscribe the new shares contributed by its subsidiary, Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd., for 25,000 thousand shares, with par value US\$2 per share, as proposed in the Board of Director's meeting held on October 8, 2020.

(12) Other:

(a) The followings were the summary statement of employee benefits, depreciation and amortization expenses by function:

	For the three i	months ended S 2020	eptember 30,	For the three months ended September 30, 2019			
	Classified as operating costs	Classified as operating expenses	Total	Classified as operating costs	Classified as operating expenses	Total	
Employee benefits							
Salaries	681,298	299,946	981,244	656,501	289,570	946,071	
Labor and health insurance	52,723	16,252	68,975	47,245	13,722	60,967	
Pension	22,726	6,968	29,694	20,796	7,220	28,016	
Director remuneration	-	48,200	48,200	-	39,140	39,140	
Others	35,658	14,955	50,613	33,192	12,827	46,019	
Depreciation	862,802	72,579	935,381	730,110	78,578	808,688	
Amortization	6,670	24,039	30,709	4,189	11,487	15,676	

	For the nine n	nonths ended S 2020	eptember 30,	For the nine months ended September 30, 2019			
	Classified as operating costs	Classified as operating expenses	Total	Classified as operating costs	Classified as operating expenses	Total	
Employee benefits							
Salaries	2,115,616	860,965	2,976,581	1,754,106	773,785	2,527,891	
Labor and health insurance	156,715	48,404	205,119	133,303	43,058	176,361	
Pension	67,147	19,542	86,689	57,967	21,339	79,306	
Director remuneration	-	125,796	125,796	-	63,136	63,136	
Others	105,621	42,166	147,787	94,525	38,230	132,755	
Depreciation	2,401,200	243,660	2,644,860	2,238,422	238,706	2,477,128	
Amortization	19,108	57,451	76,559	13,460	35,445	48,905	

(b) Seasonality of operations:

The Group's operations were not affected by seasonality or cyclicality factors.

(c) Due to the spread of COVID-19 pandemic, governments all over the world have continuously enforced the pandemic prevention of COVID-19 since January 2020. Because Taiwan successfully contained Covid-19 and the government continuously loosened the policies, the Group assessed that COVID-19 pandemic did not have significant impact on the Group's operation.

(13) Other disclosures:

(a) Information on significant transactions:

The following were the information on significant transactions required by the "Regulations Governing the Preparation of Financial Reports by Securities Issuers" for the Group for the nine months ended September 30, 2020:

- (i) Loans to other parties: None.
- (ii) Guarantees and endorsements for other parties: Please refer to schedule A.
- (iii) Securities held as of September 30, 2020 (excluding investment in subsidiaries, associates and joint ventures): Please refer to schedule B.
- (iv) Individual securities acquired or disposed of with accumulated amount exceeding the lower of NT\$300 million or 20% of the Company's paid-in capital: Please refer to schedule C.
- (v) Information on acquisition of real estate with purchase amount exceeding the lower of NT\$300 million or 20% of the Company's paid-in capital: Please refer to schedule D.
- (vi) Information on disposal of real estate with amounts exceeding the lower of NT\$300 million or 20% of the Company's paid-in capital: None.
- (vii) Information regarding related-parties purchases and/or sales with amounts exceeding the lower of NT\$100 million or 20% of the Company's paid-in capital: None.
- (viii) Information regarding receivables from related-parties exceeding the lower of NT\$100 million or 20% of the Company's paid-in capital: None.
- (ix) Information regarding trading in derivative financial instruments: None.
- (x) Business relationships and significant intercompany transactions: None.
- (b) Information on investments: Please refer to schedule E.
- (c) Information on investment in Mainland China: Please refer to schedule F.
- (d) Information on major shareholders: Please refer to schedule G.

(14) Segment information:

(a) The Group's reportable segment is the foundry segment, and agriculture technology segment. The segment engages separately in researching, developing, manufacturing, selling of GaAs wafers and developing hog farming technology and trading, etc., respectively.

Other operating segments are mainly engaged in investment activities and gene chip and testing, which do not exceed the quantitative thresholds to be reported.

(b) Operating segment profit or loss (includes reportable segment revenue and expenses), segment assets, segment liabilities, and their measurement and reconciliations for the three months and nine months ended September 30, 2020 and 2019, the reportable amount is similar to that in the report used by the operating decision maker and the operating segment accounting policies are similar to the ones described in Note 4 "significant accounting policies" were as follows:

For the three months ended September		Agriculture		Reconciliation and	
30, 2020	Foundry	technology	Others	elimination	Total
Revenue:					
Revenue from external customers	\$ 6,458,335	16,956	91,087		6,566,378
Interest expenses	\$ 9,047	15,900	12		24,959
Depreciation and amortization	\$ 935,573	24,688	4,817	1,012	966,090
Shares of profits (losses) of associates and joint ventures accounted for using equity method	s -	76,553	(327)		76,226
Reportable segment profit or loss	\$ 2,199,565	(89,470)	37,232	(1,012)	2,146,315
Assets:					
Capital expenditures in noncurrent assets	\$ <u>1,296,836</u>	1,015,668	3,922		2,316,426
				Reconciliation	
For the three months ended September 30, 2019	Foundry	Agriculture technology	Others	and elimination	Total
Revenue:					
Revenue from external customers	\$ <u>6,134,605</u>	237,605	31,409		6,403,619
Interest expenses	\$ 8,835	7,574	104		16,513
Depreciation and amortization	\$ 805,129	14,369	3,906	960	824,364
Shares of losses of associates and joint ventures accounted for using equity					
method	\$ (303)	(6,136)	(1,400)		(7,839)
Reportable segment profit or loss Assets:	\$ 2,026,954	(7,604)	(6,336)	(960)	2,012,054
Capital expenditures in noncurrent assets	\$ 691,711	447,693	1,121		1,140,525
				Reconciliation	
For the nine months ended September 30, 2020	Foundry	Agriculture technology	Others	and elimination	Total
Revenue:	Toundry	teennology	Others	Cilimitation	1000
Revenue from external customers	\$ 18,482,506	34,143	168,476	_	18,685,125
Interest expenses	\$ 18,663	42,730	19		61,412
Depreciation and amortization	\$ 2,650,038	53,726	14,582	3,073	2,721,419
Shares of profits (losses) of associates and joint ventures accounted for using equity method	\$ -	91,804	(931)		90,873
	\$ 6,311,658	(196,583)		(3,073)	6,117,675
Reportable segment profit or loss Assets:	υ <u>,511,05δ</u>	(190,303)	5,673	(3,073)	0,11/,0/5
Assets: Capital expenditures in noncurrent assets	\$3,299,184	2,548,674	6,199		5,854,057

For the nine months ended September 30, 2019		Foundry	Agriculture technology	Others	Reconciliation and elimination	Total
Revenue:						
Revenue from external customers	\$	13,990,921	422,286	60,881		14,474,088
Interest expenses	\$	19,853	9,154	396		29,403
Depreciation and amortization	\$	2,471,445	40,526	11,637	2,425	2,526,033
Shares of profits (losses) of associates and joint ventures accounted for using equity	-					
method	\$	(935)	(194,669)	2,051		(193,553)
Reportable segment profit or loss	\$	3,359,771	(75,138)	(52,442)	(2,425)	3,229,766
Assets:	_					
Capital expenditures in noncurrent assets	\$_	2,366,156	1,350,299	3,992	 :	3,720,447

For the three months and nine months ended September 30, 2020 and 2019, reportable segment profit or loss excludes non-operating income and expenses, amounting to \$244,499 thousand, \$(29,320) thousand, \$267,693 thousand and \$(55,223) thousand, respectively.

Schedule A Guarantees and endorsements for other parties:

ات		8 ° 8	Г	_	_	_	_	_	_	_		_	_		_	_
ot Dollars		Endorsements/ guarantees to the companies in mainland China		_	٨	_	Y		Y		Y	_	Y		Y	
In thousands of Dollars		Subsidiary endorsements/ guarantees to parent company			,		1				,					
(In		Parent company Subsidiary endorsements/ endorsements/ guarantees to guarantees to subsidiary parent company	Y		>		Y		Y		Y		Y		,	
		Maximum amount Parent company for guarantees endorsements guarantees to (Note 3)(Note 4) subsidiary	Net equity 50%	16,000,245	Net equity 50%	16,000,245	Net equity 50%	16,000,245	67% Net equity 50%	16,000,245	Net equity 50%	16,000,245	3.34% Net equity 50%	16,000,245	3.46% Net equity 50%	3,094,849
	Ratio of accumulated		1.50%		3.34%		5.01%		1.67%		3.34%		3.34%		3.46%	
		Property pledged for guarantees and endorsements (Amount)					1				,				,	
		Actual usage amount			1,164,000		1,018,500		•		582,000				198,721	7,350) (USD 6,829)
		Balance of guarantees and endorsements as of reporting date	480,550		1,067,890		1,601,835		533,945		1,067,890		1,067,890		213,885	
		Highest balance of guarantees and endorsements during the period	480,550		1,067,890		1,601,835		533,945		1,067,890		1,067,890		213,885	SD 7,350) (USD
	Limitation on amount of		16,000,245		16,000,245		16,000,245		16,000,245		16,000,245		16,000,245		1,856,909	(USD 63,811) (USD
		Relationship with the Company (Note 2)	2		2		2		2		2		2		9	<u> </u>
	Counter-party of guarantee and endorsement	Name	Chainwin Biotech and Agrotech (Cayman Islands)	Co., Ltd.	Jiangsu Chainwin Kang Yuan Agricultural	Development Co., Ltd.	Jiangsu Win Yield Agriculture Development Co.,	Ltd.	Jiangsu Win Shine Agriculture Development Co.,	Ltd.	Jiangsu Chainwin Agriculture and Animal	Technology Co., Ltd.	Jiangsu Win Chance Agriculture Development Co.,	Ltd. (Note 6)	Chainwin Biotech and Agrotech Jiangsu CM/Chainwin Agriculture Development	Co., Ltd.
		Name of guarantor	The Company		"		"		"		"		"		Chainwin Biotech and Agrotech	(Cayman Islands) Co., Ltd.
		Number (Note 1)	0		0		0		0		0		0		-	

Note 1: Company numbering as follows:

Investee starts from 1

Note 2: Relationship with the Company

Ordinary business relationship.

2. An entity, directly and indirectly, owned more than 50% voting shares of a guarantor.

3. A guarantor, directly and indirectly, owned more than 50% voting shares of an entity.

4. An entity, directly and indirectly, owned more than 90% voting shares of a guarantor.

5. Fulfillment of contractual obligations by providing mutual endorsements and guarantees for peer or joint builders in order to undertake a construction project 6. An entity that is guaranteed and endorsed by all capital contributing shareholders in proportion to their shareholding percentages.

7. Peer engaged in the escrow of the sales contract on pre-sale house under the Consumer Protection Act.

Note 3: WIN Semiconductors Corp.'s operating procedures of guarantee were as follows:

1. The guarantees and endorsements limit provided by WIN Semiconductors Corp. to other parties should not exceed 50% of its equity based on the most recent audited or reviewed financial statement by a certified accountant. The individual guarantee amount should not exceed 50% of its equity based on the most recent audited or reviewed financial statement by a certified accountant.

2. The guarantees and endorsements limit provided by WIN Semiconductors Corp. and its subsidiaries to other parties should not exceed 50% of its equity based on the most recent audited or reviewed financial statement by a certified accountant. The individual guarantee amount should not exceed 50% of its equity based on the most recent audited or reviewed financial statement by a certified accountant.

thousand, wherein each Borrower was limited to the maximum loans of US\$27,000 thousand, US\$60,000 thousand, US\$30,000 thousand, US\$60,000 thousand, and US\$60,000 thousand, respectively. The guarantee and 3. Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd., Jiangsu Chainwin Kang Yuan Agricultural Development Co., Jiangsu Win Yield Agriculture Development Co., Ltd., Jiangsu Win Shine Agriculture Development Co., Ltd. Jiangsu Chainwin Agriculture and Animal Technology Co., Ltd. and Jiangsu Win Chance Agriculture Development Co., Ltd. (collectively referred to as "the Borrower") had been approved a total maximum credit line of US\$200,000 endorsed counter-parties' highest balance and ending balance of guarantees and endorsements during the period are calculated according to the ratio of the each Borrower's credit line to total credit line and exchanged to NTD.

Note 4: The guarantees and endorsements limit provided by Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd. to a particular single party and to other parties should not exceed 30% and 50%, respectively, of its equity based on the most recent audited or reviewed financial statement by a certified accountant.

Note 5: The aforementioned amount was translated at the exchange rate on the balance sheet date from USD to NTD and RMB to USD for NTD 29.10 and USD 0.1467, respectively.

Note 6: Jiangsu Merit/CM Agriculture Development Co., Ltd. renamed to Jiangsu Win Chance Agriculture Development Co., Ltd. in April 2020.

Note 7: The tariff guarantees provided by the Group amounted to NTD\$20,050 thousand, which exceeds 0.07% of its equity based on the most recent financial statements.

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WIN Semiconductors Corp. and Subsidiaries Notes to Consolidated Financial Statements

Schedule B Securities held as of September 30, 2020 (excluding investment in subsidiaries, associates and joint ventures):

		(:	(In thousand	(In thousands of New Taiwan Dollars)	ın Dollars)
Name of holder	Category and	Relationship	Account title	Shares/Units	Ending balance	palance Percentage of		Remark
	name of security	with the company		(in thousands)	Carrying value	ownership (%)	Fair value	Name of the last
The Company	Advanced Wireless Semiconductor Company/Stock	None	Current financial assets at fair value through	1,340	135,961	19.0	135,961	
*	Lin BioScience. Inc./Stock	"	pront or toss	100	8.449	0.15	8,449	
: "	Yuanta Taiwan High-Yield Leading Company Fund (B)		: #	10,000	111,400		111,400	
WIN Venture Capital Corp.	Advanced Wireless Semiconductor Company/Stock	"	#	926	97,028	0.48	97,028	
	Allianz Global Investors Taiwan Money Market Fund	"	"	1,151	14,533		14,533	
"	Capital Money Market Fund	"	"	20,903	339,724		339,724	
WIN Chance Investment Corp.	Allianz Global Investors Taiwan Money Market Fund	"	"	5,604	70,742		70,742	
"	Capital Money Market Fund	"	ll l	1,834	29,815	,	29,815	
WIN Earn Investment Corp.	Allianz Global Investors Taiwan Money Market Fund	"	ll l	11,098	140,082	,	140,082	
"	Capital Money Market Fund	"	"	9,248	150,304	ı	150,304	
F	d 111 []	:	1 17 1 1 1 1 1		1,096,036	5 01	1,096,036	
The Company	Magicapitat rung 11 E.F.		Non-current imancial assets at fair value through profit or loss	1	270,323	3.61	27.0,323	
"	CDIB Capital Growth Partners L.P.	11	"	,	980,086	3.30	980,086	
"	Fuh Hwa Oriental Fund	"	"	15,000	12,480	,	12,480	
"	Fuh Hwa Smart Energy Fund	"	"	12,000	85,344		85,344	
"	LeaSun Winion L.P.	"	"	•	28,200	12.47	28,200	
"	NFC Fund II L.P.	"	"	,	110,585	32.88	110,585	
"	Foryou Venture Capital L.P.	"	11	'	12,000	5.77	12,000	
"	Renaissance Capital Limited Partnership	"	11	,	100,000	12.82	100,000	
					709,218		709,218	
"	ITEQ Corporation/Stock	Other related parties	Non-current financial assets at fair value through	30,393	3,738,340	9.13	3,738,340	
		;	other comprehensive income	i c	0000	i c	0000	
11	Sino-American Silicon Products Inc./Stock	None	"	7,0/6	756,007	0.35	756,007	
"	Inventec Solar Energy Corporation/Stock	11	"	34,000	21,428	10.51	21,428	
"	MagiCap Venture Capital Co., Ltd./Preferred Stock A	11	"	817	89,899	18.28	89,899	
"	CDIB Capital Creative Industries Limited/Stock	"	"	3,667	34,063	3.33	34,063	
"	New Future Capital Co., Ltd./Stock	"	"	10,000	115,400	15.87	115,400	
"	Grand Fortune Venture Corp./Stock	"	"	2,000	58,600	6.87	28,600	
"	NFC I Renewable Power Co., Ltd./Stock	"	"	7,500	74,700	15.00	74,700	
"	Gogolook Co., Ltd./Stock	11	#	2,013	296,601	11.83	296,601	
Win Semiconductors Cayman Islands	Broadcom Ltd./Stock	Client	"	75	795,128	0.02	795,128	
Co., Ltd.								
"	Anokiwave Inc./Series B Preferred Stock	"	"	1,264	306,859	7.93	306,859	
WIN Venture Capital Corp.	MOAI Green Power Corporation/Stock	None	"	06		0.29		(Note 1)
"	Merit Biotech INC./Stock	"	"	1,320		2.93		(Note 2)
"	Winresp INC./Stock	"	"	2,740	46,695	18.16	46,695	
WIN Chance Investment Corp.	ITEQ Corporation/Stock	Other related parties	"	1,872	230,232	0.56	230,232	
Chainwin Biotech and Agrotech	Formosa Fortune Group Cayman Islands Co., Ltd./Stock	None	Ti.	12	22,407	4.78	22,407	
(Cayman Islands) Co., Lid.					6.031.300	•	6.031.300	
					0,001,000		(00,100,0	
							_	

Note 1: MOAI Electronics Corporation renamed to MOAI Green Power Corporation in September 2020.

Note 2: The Board of Directors of Merit Biotech INC. had resolved to dissolve and liquidate the company in 2017. As of September 30, 2020, the company is still within the period of liquidation.

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WIN Semiconductors Corp. and Subsidiaries Notes to Consolidated Financial Statements

Schedule C Individual securities acquired or disposed of with accumulated amount exceeding the lower of NT\$300 million or 20% of the Company's paid in capital:

Ī	Amount	3,738,340	(Note 1)	6,686,244	(Note 2)	5,494,673	(Note 2)	603,476	(Note 2)	1,473,863		339,724	(Note 1)
Ending		L	Ŝ.		Š		Š	·	Š.	1,4			ν̈́,
	Shares (in thousands)	30,393		217,000		110,054		'		'		20,903	
	Gain (loss) on disposal											374	
es	Cost											157,721	
Sales	Price	,		,		,		,		,		158,095	
	Shares (in thousands)											9,755	
ases	Amount	643,683		1,487,000		1,481,500		453,450		326,320		334,400	
Purchases	Shares (in thousands)	5,723		50,000		25,000						20,592	
ming	Percentage of ownership (%)	796,413		5,135,146		5,219,959		155,300		1,363,751		162,753	
Beginning	Shares (in thousands)	24,670		167,000		85,054		,		,		10,066	
	Kelationship with the Company	Other related parties		Subsidiary		nvestment through	subsidiary	"		"		None	
9	name or counter-party	,		1			92						
	Account name	Non-current financial assets at fair value	through other comprehensive income	Investments accounted for using equity	method	"		"		"		Current financial assets at fair value	through profit or loss
	Category and name of security	ITEQ Corporation/Stock		Win Semiconductors Cayman	Islands Co., Ltd./Stock	Chainwin Biotech and Agrotech	(Cayman Islands) Co., Ltd.	Jiangsu Win Yield Agriculture	Development Co., Ltd.	Jiangsu Chainwin Kang Yuan	Agricultural Development Co., Ltd.	Capital Money Market Fund	
	Name of Company	The Company		"		Win Semiconductors Cayman	Islands Co., Ltd.	Chainwin Biotech and Agrotech	(Cayman Islands) Co., Ltd.	"		WIN Venture Capital Corp.	
_													

Note 1: The amount of ending balance included unrealized gains (losses) on financial assets.

Note 2: The amount of ending balance was calculated using the equity method. The amount of the transaction and the ending balance had been offset in the consolidated financial statements.

Schedule D Information on acquisition of real estate with purchase amount exceeding the lower of NT\$300 million or 20% of the Company's paid in capital:

Dollars)		Others	None				None				None			
(In thousands of New Taiwan Dollars)		Purpose of acquisition	Operating	purpose			Operating	purpose			Operating	purpose		
onsands of	References	determining acquisition	Price (comparison	and price	negotiation	Price (comparison	and price	negotiation	Price	comparison	and price	negotiation
(In the	ty, ation	Amount	N/A				N/A				N/A			
	is a related par transfer inform	Date of transfer	N/A				N/A				N/A			
	If the counter party is a related party, disclose the previous transfer information	Relationship with the company	N/A				N/A				N/A			
	If th disclo	Owner	A/A				N/A				N/A			
	Relationship	with the company												
		Counter-party	Jiangsu Nantong	Sanjian Construction	Group Co., Ltd.		Jiangsu Nantong	Sanjian Construction	Group Co., Ltd.		Jiangsu Nantong	Sanjian Construction	Group Co., Ltd.	
		Status of payment	617,213 As of September 30, 2020, the price paid	RMB 138,575) \$561,994 thousand (RMB 131,646 thousand). Sanjian Construction			772,168 As of September 30, 2020, the price paid	RMB 173,365) \$646,159 thousand (RMB 151,362 thousand). Sanjian Construction			1,482,045 As of September 30, 2020, the price paid	342,511) \$973,325 thousand (RMB 228,000 thousand). Sanjian Construction		
		Transaction amount	617,213 A	(RMB 138,575)			772,168 A	(RMB 173,365)			1,482,045 A	(RMB 342,511)		
		Transaction Date	2018/10/25				2018/11/20				2020/1/10			
		Name of Property	Factory buildings				Factory buildings				Factory buildings			
	,	Name of company	Jiangsu Chainwin Kang Yuan	Agricultural Development Co., Ltd.			Jiangsu Chainwin Agriculture and	Animal Technology Co., Ltd.			Jiangsu Win Yield Agriculture	Development Co., Ltd.		

Schedule E Information on investments:

The following is the information on investees for the nine months ended September 30, 2020 (excluding information on investees in Mainland China):

			,	Original investment amount	fment amount	The endi	The ending balance at this neriod	s neriod			
			Main	Oliginal inves	tillellt alliouilt	I IIC CIIGI	ing paramete at time	s period	Net income	Invantage	
Name of investor	Name of investee	Location	businesses and	The ending balance	The ending balance The ending balance	Shares	Percentage of	Carrying	(losses)	income (losses)	Remark
			products	at this year	at the beginning	(in thousands)	ownership	value	of investee		
The Company	WIN SEMI. USA, INC.	California USA	Marketing	8,203	8,203	1,000	100.00%	(1,703)	(2,110)		(2,110) (Note 1)
	Win Semiconductors Cayman Islands	Cayman Islands	Investment activities	6,622,146	5,135,146	217,000	100.00%	6,686,244	(143,768)		(143,768) (Note 1)
	Co., Ltd.										
	WIN Venture Capital Corp.	Taiwan	Investment activities	500,000	500,000	50,000	100.00%	552,445	89,533	89,533	(Note 1)
, ,	Phalanx Biotech Group, Inc.	Taiwan	Researching, manufacturing and selling of high	604,150	604,150	44,650	54.48%	434,790	(86,480)		(47,112) (Note 1)
			density gene chips and testing service								
<u>'</u>	WIN Chance Investment Corp.	Taiwan	Investment activities	290,000	10,000	29,000	100.00%	330,715	16,416	16,416	(Note 1)
, ,	WIN Earn Investment Corp.	Taiwan	Investment activities	290,000	10,000	29,000	100.00%	290,348	382	382	(Note 1)
Capital Corp. 1	WIN Venture Capital Corp. Phalanx Biotech Group, Inc.	Taiwan	Researching, manufacturing and selling of high	39,600	39,600	3,600	4.39%	53,251	(86,480)	(Note 2)	(Note 1)
			density gene chips and testing service								
Win Semiconductors	Rainbow Star Group Limited	British Virgin	Investment activities	62,920	62,920	38	49.30%	57,391	(1,890)	(Note 2)	
Cayman Islands Co., Ltd.		Islands									
<u>)</u>	Chainwin Biotech and Agrotech (Cayman	Cayman Islands	Investment activities	6,701,459	5,219,959	110,054	86.78%	5,494,673	(130,039)	(Note 2)	(Note 1)
	Islands) Co., Ltd.										
Chainwin Biotech and	i-Chainwin Technology (Cayman Islands)	"	Investment activities	194,670	,	6,500	100.00%	166,857	(22,828)	(Note 2)	(Note 1)
Agrotech (Cayman Islands) Co., Ltd.	Jo., Ltd.										
<u>'</u>	Win Lux Biotech (Cayman Islands) Co., Ltd.	**	Investment activities	15,010	,	500	100.00%	14,563	(248)	(Note 2)	(Note 1)
ech Group, Inc.	Phalanx Biotech Group, Inc. Phalanx Biotech Limited	Hong Kong	Investment activities	8,784	8,784		100.00%	4,330	(3,457)	(Note 2)	(Note 1)
. I	PhalanxBio, Inc.	USA	Selling of high density gene chip and test service	208,110	208,110	2,550	100.00%	(842)	729	(Note 2)	(Note 1)

Note 1: The amount of the transaction had been offset in the consolidated financial statements.

Note 2: The shares of profits (losses) of the investee company is not reflected herein as such amount is already included in the share of profits (losses) of the investor company.

Schedule F Information on investment in Mainland China:

(i) The names of investees in Mainland China, the main businesses and products, and other information:

		1.014	(808) (RMB		(RMB	_	(808)	300) (RMB	300	(USD			_	300	(TISD		1.898)	(RMB	and test service	
(Note 9)	'	4,330		(3,457)	%	58.87%	(3,457)	_	8,784			٠		8,784		(Note 2)	8,784		Onearray Biotech (Kunshan) Co., Ltd. Selling of high density gene chip	ch (Kunshan) Co., Ltd.
		1,001	(OSD	(26)	(USD	_	(26)	(USD									1,000)	(USD		Development Co., Ltd.
(Note 9)	1	29,127	_	(763)	%	%81.9%	(292)		•		'	•		•		(Note 1)	29,480		Logistics management service	iangsu Win Shine Agriculture
		20,738)	(OSD	(66	(OSD	_	66	20,000) (USD	20,000	(OSD	_	15,000)	(OSD	5,000)	(USD		20,000)	(OSD	and trading	Development Co., Ltd.
(Note 9)	•	603,476	_	2,959	%	86.78%	2,959	_	608,750		'	453,450		155,300		(Note 1)	608,750		Developing hog farming technology	iangsu Win Yield Agriculture
		1,860	(20) (OSD	(20)	(USD	_	(20)	1,335) (USD	1,335	(OSD			_	1,335	(USD		16,177)	(RMB	and trading	Development Co., Ltd.
(Note 9)	•	54,137	<u> </u>	(592)	%	%81.98	(592)	_	41,009		'	•		41,009		(Note 1)	72,313		Developing hog farming technology	iangsu Merit Runfu Agriculture
								_	4,872	(OSD			_	4,872	(OSD				and trading	Agriculture Development Co., Ltd.
(Note 7)	•	•			,		•	_	149,664		'	•		149,664		(Note 1)			Developing hog farming technology	iangsu Merit/Cofcojoycome
(Note 9)		14,614)	(491) (USD		(USD	_	(491)	16,567) (USD	16,567	(NSD			_	16,567	(USD		15,200)	(USD	and trading	Development Co., Ltd.
(Note 8)	'	425,267	0	(14,446)	%	%82.98	(14,446)		507,913		'	•		507,913		(Note 1)	466,944		Developing hog farming technology	iangsu Win Chance Agriculture
		19,283)	(OSD	3,115)	(OSD	_	6,356	OSD)	30,905)	(OSD			_	30,905	(USD		55,510)	(OSD	and trading	Development Co., Ltd.
	'	561,123		91,804	%	42.52%	187,355	_	951,961			٠		951,961		(Note 1)	1,710,498		Developing hog farming technology	iangsu CM/Chainwin Agriculture
		30,224)	(OSD	(374))	(USD	_	(374)	30,046) (USD	30,046	(OSD	_	000,6	(OSD	21,046)	(OSD		30,790)	(USD		vnimal Technology Co., Ltd.
(Note 9)	'	879,529	_	(11,401	%	%81.9%	(11,401)	15	919,975		'	266,670		653,305		(Note 1)	942,839		Farm feed developing and trading	iangsu Chainwin Agriculture and
		50,648)	(nsd	(2,715)	(USD	_	(2,715)	53,471) (USD	53,471	(OSD	_	11,000)	(nsd	42,471)	(USD		380,074)	(RMB	and trading	Agricultural Development Co., Ltd.
(Note 9)		1,473,863)	(81,191	%	86.78%	(81,191)	9	1,635,856			326,320		1,309,536		(Note 1)	1,690,071		Developing hog farming technology	iangsu Chainwin Kang Yuan
	period	(Note 4)		(C STOKE)(C		_	nivesice.	10	June 30, 2020	June	Inflow	Outflow	0	beginning of this year	beginnir					
	earnings in current	of this year		(Note 3) (Note 5)		À	of the investee	of th	Taiwan as of	Taiv				Taiwan at the	Taiv	investment	of paid in capita	of paid	and products	investee
Damork	remittance of	at the end	at t	income (logger)		rercentage	(Joseph)	5 5	of investment from	of inve	flows	Investment flows		of investment from	of inve	Method of	Total amount	Total	Main businesses	Name of
	Accumulated	Carrying value	Carry	4		u		Ļ	Accumulated outflow	Accumu				Accumulated outflow	Accum					
of Dollars)	(In thousands of Dollars)																			

(ii) Limitation on investment in Mainland China:

13,102,023	(USD 200,725)	(USD 157,496)	ne company and substantiantes
10 763 633	5,841,102	4,823,912	Po Common busy and miles
(Note 6)	Commission, MOEA	end (Note 7)	Company Name
Upper Limit on Investment	Investment Amounts Authorized by Investment	Accumulated Investment in Mainland China at the	Investor
THE HOUSTHON FOR THE			

Note 1: The Group invested in Mainland China companies through Chainwin Biotech and Agrotech (Cayman Islands) Co., Ltd., which is established in a third region.

Note 2: The Group invested in Mainland China companies through Phalanx Biotech Limited, which is established in a third region. Note 3: The amount of net income (losses) was recognized based on the reviewed financial statements of the investee companies.

Note 4: Carrying value as of September 30, 2020 was with reference to the amount recognized by the investment through subsidiaries to subsidiaries established in a third region. Note 5: Investment income (Josses) recognized was translated into New Taiwan Dollars at the average exchange rate for the each month from January 1 to September 30, 2020.

Note 6: Amount of upper limit on investment was the higher between sixty percentage of total equity or total consolidated equity.

Note 7: Jiansu Merit/Cofcojoycome Agriculture Development Co., Ltd. had been liquidated on January 25, 2019. However, according to the regulation of Investment Commission the remittance to Mainland China amounting to US\$4,872 thousand (NT\$149,664 thousand) was included in the accumulated investment account.

Note 8: Jiangsu Merit/CM Agriculture Development Co,, Ltd. renamed to Jiangsu Win Chance Agriculture Development Co., Ltd. in April 2020.

Note 9: The amount of the transaction and the ending balance had been offset in the consolidated financial statements

(iii) Significant transactions: None

Schedule G Information on major shareholders:

5.35%	22,706,330	Tien Ho Industrial Co., Ltd.
Percentage	Shares	Shareholding Shareholder's Name
(In shares)		

APPENDIX A — THE SECURITIES MARKET OF THE ROC

The information presented in this section has been extracted from publicly available documents which have not been prepared or independently verified by us, the Initial Purchaser, or any of our or its affiliates or advisors in connection with the offering. References to the FSC in this section include both the ROC Securities and Futures Commission and the ROC Securities and Exchange Commission, the predecessors of the ROC SFB of the FSC.

In September 1960, the ROC government established the ROC Securities and Exchange Commission to supervise and control all aspects of the existing domestic securities market and the TWSE began to take shape soon thereafter. In the 1970s and the early 1980s, the ROC government implemented a number of steps designed to upgrade the quality and importance of the ROC securities markets, such as encouraging listing on the TWSE and establishing an over-the-counter securities exchange. In the mid-1980s, the ROC government began to revise its laws and regulations in a manner designed to facilitate the gradual internationalization of the ROC securities markets. In 1997, the ROC Securities and Exchange Commission was renamed the ROC Securities and Futures Commission. Effective July 1, 2004, the ROC Securities and Futures Commission has been renamed the ROC SFB, which is under the FSC.

THE TWSE

In 1961, the FSC established the TWSE to provide a marketplace for securities trading. The TWSE is a corporation owned by government-controlled and private banks and enterprises. The TWSE is independent of the entities transacting business through it, each of which pays to the TWSE a user's fee. Subject to limited exceptions, all transactions in listed securities by brokers, traders and integrated securities firms must be made through the TWSE.

The TWSE commenced operations in 1962. During the early 1980s, the FSC actively encouraged new listings on the TWSE and the number of listed companies has grown from 119 in 1983 to 942 as of December 31, 2019. As of November 30, 2020, 944 companies had listed equity securities on the TWSE and the market capitalization of those companies was approximately NT\$41.8 trillion.

Historically, ROC companies have listed only shares and bonds on the TWSE. However, the FSC has encouraged companies to list other types of securities. In 1988, the Ministry of Finance permitted the issuance of ROC's first exchangeable bonds. Since 1989, there have been offerings of domestic convertible bonds and convertible preferred shares. In addition, beneficiary units evidencing beneficiary interests in closed-end investment funds and bonds issued by supra-national financial institutions are also listed on the TWSE or traded on the TPEx (which is discussed below). The FSC also has promulgated regulations which permit foreign issuers to list certain securities on the TWSE.

The TWSE considers the following factors when evaluating a company for listing:

- the number of shareholders and the distribution of shareholdings among such shareholders;
- the length of time in business;
- the amount of paid-in capital; and
- profitability.

However, special listing criteria apply to technology companies and key businesses engaging in national economic development.

The following table sets forth, for the periods indicated, information relating to the TWSE:

Period	Listed Companies at the Period End	Stock Trading Values	Index High	Index Low	Index at Period End
		(NT\$ in billion)			
1997	404	37,241.15	10,116.84	6,820.35	8,187.27
1998	437	29,618.97	9,277.09	6,251.38	6,418.43
1999	462	29,291.53	8,608.91	5,474.79	8,448.84
2000	531	30,526.57	10,202.20	4,614.63	4,739.09
2001	584	18,354.94	6,104.24	3,446.26	5,551.24
2002	638	21,873.95	6,462.30	3,850.04	4,452.45
2003	669	20,333.24	6,142.32	4,139.50	5,890.69
2004	697	23,875.37	7,034.10	5,316.87	6,139.69
2005	691	18,818.90	6,575.53	5,632.97	6,548.34
2006	688	23,900.36	7,823.72	6,257.80	7,823.70
2007	698	33,043.85	9,809.88	7,344.56	8,506.28
2008	718	26,115.41	9,295.20	4,089.93	4,591.22
2009	741	29,680.47	8,188.11	4,242.61	8,188.11
2010	758	28,218.68	8,972.50	7,071.67	8,972.50
2011	790	26,197.41	9,145.35	6,633.33	7,072.08
2012	809	20,238.17	8,144.04	6,894.66	7,699.50
2013	838	18,940.93	8,623.43	7,616.64	8,611.51
2014	854	21,898.54	9,569.17	8,264.48	9,307.26
2015	874	20,191.49	9,973.12	7,410.34	8,338.06
2016	892	16,771.14	9,392.68	7,664.01	9,253.50
2017	907	23,972.24	10,854.57	9,272.88	10,642.86
2018	928	29,608.87	11,253.11	9458.99	9727.41
2019	942	26,464.63	12,122.45	9,382.51	11,997.14
2020 (January to November)	944	39,709.60	13,878.01	8,681.34	13,722.89

Number of

Source: TWSE

The TPEx

To complement the TWSE, the TPEx was established in September 1982 on the initiative of the FSC to encourage the trading of securities of companies who do not qualify for listing on the TWSE, and later renamed as the TPEx. As of November 30, 2020, 777 companies had listed equity securities on the TPEx and the total market capitalization of those companies was approximately NT\$4.16 trillion.

The TPEx has established specific requirements for trading securities on the TPEx based on the history of a company, the number and distribution of a company's shareholders, amount of capital, profitability and capital structure.

Price Limits, Commissions, Transaction Tax and Other Matters

The TPEx has placed limits on block trading and on the range of daily price movements. According to the TPEx's block trading guidelines, an order for sale or purchase of 500 or more trading lots of one class of securities, or securities of five or more different classes and trading amounts exceeding NT\$15 million, must be registered and executed in accordance with the guidelines. Fluctuations in the price of stock traded on the TPEx are currently subject to a restriction of 10% above and below the previous day closing price (or reference price set by the TPEx if the previous day closing price is not available because of lack of trading activity). However, these restrictions have been modified from time to time by the FSC based on market conditions. Brokerage commission can be set at any rate of the transaction price provided that any rate exceeding 0.1425% shall be reported to the TWSE and notify the client in advance. A securities transaction tax, currently levied at 0.3% of the transaction price, is payable by the seller of equity securities. Such securities transaction taxes are withheld at the time of the transaction giving rise to such tax. Sales of shares of companies listed on the TPEx are currently sold in round lots of 1,000 shares. Investors who desire to sell less than 1,000 shares of a listed company occasionally experience delays in effecting such sales. Starting from January 15, 2016, upon the occurrence of any matter which may have a material impact on the shareholders' equity or the price of securities of a TWSE-listed company (e.g., merger), such company should apply to the TWSE, or the TWSE should request, for suspension of trading of its shares for one to three trading days (or a longer period if necessary).

Regulation and Supervision

The FSC has extensive regulatory authority over public companies. Public companies are generally required to obtain the deemed approval from the FSC for all securities offerings. The FSC has promulgated regulations requiring, unless otherwise exempted, periodic reporting of financial and operating information by all public companies. In addition, the FSC establishes standards for financial reporting and carries out licensing and supervision of participants in the ROC securities market.

The FSC has responsibility for implementing ROC Securities and Exchange Act and for overall administration of governmental policies in the ROC securities market. It has extensive regulatory authority over the offering, issuance and trading of securities. In addition, ROC Securities and Exchange Act specifically empowers the FSC to promulgate necessary rules. ROC Securities and Exchange Act prohibits market manipulation. For example, it permits an issuer to recover short-swing trading profits made through purchases and sales within six months by directors, managerial personnel, supervisors, as well as the spouses, minor children and nominees of these parties, and shareholders (together with their spouses, minor children and nominees) who hold more than 10% of the shares of the issuer. The ROC Securities and Exchange Act prohibits trading by "insiders" based on nonpublic information that materially affects share price movement prior to publication of such information and within 18 hours after publication of such information. "Insiders" include:

- directors, supervisors, managers, as well as the spouses, minor children and nominees of these
 parties, and shareholders (together with their spouses, minor children and nominees) who hold more
 than 10% of the issuing company's shares and any individual designated by a governmental or
 corporate director or supervisor to act on its behalf;
- any person who has learned material nonpublic information due to an occupational or controlling relationship with the issuing company;
- any person who has discharged from the status or position in the first and second bullet points for not more than six months; and
- any person who has learned material non-public information from any of the above.

Sanctions include imprisonment. In addition, damages may be awarded to persons injured by the transaction. ROC Securities and Exchange Act also imposes criminal liability on certified public accountants and lawyers who make false certifications in their examination and audit of an issuer's contracts, reports and other documents related to securities transactions. The FSC regulations require that financial reports of listed companies be audited by accounting firms consisting of at least three certified public accountants and be signed by at least two certified public accountants.

In addition, the ROC Securities and Exchange Act provides for civil liability for material misstatements or omissions made by issuers and regulation of tender offers. The FSC does not have criminal or civil enforcement powers under ROC Securities and Exchange Act. Criminal actions may be pursued only by government prosecutors. Civil actions may only be brought by plaintiffs who assert that they have suffered damages. The FSC is empowered to curb abuses and violations of laws and regulations only through administrative measures including:

- issuance of warnings;
- temporary suspension of operation;
- imposition of administrative fines; and
- revocation of licenses.

In addition to providing a market for securities trading, the TWSE reviews applications by ROC and foreign issuers to list securities on the TWSE. If issuers of listed securities violate laws and regulations or encounter significant difficulties, the TWSE may, with the approval of the FSC, delist the securities of these issuers.

APPENDIX B — FOREIGN INVESTMENT AND EXCHANGE CONTROLS IN THE ROC

The information presented in this section has been extracted from publicly available documents which have not been prepared or independently verified by us, the Initial Purchaser or any of our or its affiliates or advisors in connection with this offering.

Foreign Investment

Historically, foreign investment in the ROC securities markets has been restricted. Since 1983, the ROC government has periodically enacted legislation and adopted regulations to permit foreign investment in the ROC securities market.

Regulations Governing Investment in Securities By Overseas Chinese and Foreign Nationals (the "Foreign Regulations"), which was announced on May 26, 1983 and last amended on February 11, 2014, and the Regulations Governing Mainland Chinese Investors' Securities Investments and Futures Trading in the ROC (the "PRC Regulations"), which was announced by the FSC on April 30, 2009, are two of the major regulations governing foreign investment in companies listed on TWSE or TPEx in the ROC.

Under the Foreign Regulations, foreign investors (other than PRC persons) are classified as either "onshore foreign investors" or "offshore foreign investors" according to their respective geographical location. Unless otherwise specified in the laws and regulations, both onshore and offshore foreign investors are allowed to invest in ROC securities after they register with the TWSE. The Foreign Regulations further classify foreign investors into foreign institutional investors and foreign individual investors. "Foreign institutional investors" refer to those investors incorporated and registered in accordance with foreign laws outside of the ROC (i.e., offshore foreign institutional investors) or their branches set up and recognized within the ROC (i.e., onshore foreign institutional investors). Offshore overseas Chinese and foreign individual investors may be subject to a maximum investment ceiling that will be separately determined by the FSC after consultation with the CBC. An offshore investor may only invest in ROC securities as permitted by the FSC such as shares, certificates of bond conversion entitlement, and Taiwan Depositary Receipts publicly or privately offered by TWSE-listed, TPEx-listed or emerging market-listed companies, beneficiary certificates issued by securities investment trusts, government bonds, bank debentures, corporate bonds, convertible bonds, bonds with warrant, beneficiary securities or asset-backed securities issued by the special purpose trust or special purpose vehicle and warrants. The FSC may set a cap for the total investment amount of offshore investors, after consulting with the CBC, provided that the FSC lifted such cap in 2008.

In the past, PRC persons were prohibited from investing, whether directly or indirectly, in the ROC. The PRC Regulations promulgated by the FSC on April 30, 2009 loosen these restrictions. Under the PRC Regulations, PRC nationals and institutional investors are allowed to invest in ROC securities, if they are qualified for any of the following categories: (i) qualified domestic institutional investors approved by the PRC government, also known as "QDIIs"; (ii) PRC residents who are employees of a TWSE-listed or TPEx listed company and thereupon granted securities; (iii) companies incorporated under the laws of PRC or PRC residents who are the stockholders of a foreign company whose shares or depositary receipts are listed and traded on the TWSE or TPEx; or (iv) other categories as permitted by the competent authority. Subject to the requirements and restrictions set forth below, a PRC investor may invest in TWSE-listed or TPEx-listed securities, beneficiary certificates issued by securities investment trusts, government bonds, bank debentures, corporate bonds issued by public companies, beneficiary securities or asset-backed securities issued by the special purpose trust or special purpose vehicle, warrants and other securities as permitted by the FSC.

- PRC investors are required to appoint their agent or nominee in Taiwan for opening a securities trading account.
- PRC investors are required to appoint a custodian permitted by the competent authority to handle the custody of funds and certificates related to securities.

- In exercising the voting rights of the shares of a TWSE-listed or TPEx-listed company, unless otherwise permitted by laws and regulations, PRC investors may not substantially control or effect the operation and management of the company.
- The amount of investment remittance for each QDII is capped at US\$100 million, and the total amount remitted into Taiwan by all QDIIs shall not exceed US\$500 million.
- The PRC investor may not exceed the PRC ownership limit imposed by the Taiwan competent authority.

Depositary Receipts

In April 1992, the FSC enacted regulations permitting ROC companies with securities listed on the TWSE, with the prior approval of the FSC, to sponsor the issue and sale to foreign investors of depositary receipts. Depositary receipts represent deposited shares of ROC companies. In December 1994, the Ministry of Finance further allowed companies whose shares are traded on the TPEx or listed on the TWSE, upon approval of the FSC, to sponsor the issue and sale of depositary receipts.

A holder of depositary receipts may, after the issuance of the depositary receipts representing new shares and upon the listing of the underlying shares and (in practice, typically four business days thereafter), request the depositary to either cause the underlying shares to be sold in the ROC and to distribute the sale proceeds to the holder or to withdraw from the depositary receipt facility the shares represented by the depositary receipts and deliver the shares to the holder. For depositary shares that represent previously issued and existing shares, a holder of the depositary receipts could, immediately after the issuance of the depositary receipts, request the depositary to conduct the foregoing. Currently, a holder of depositary shares who is a PRC person may not withdraw and hold shares unless (i) it is a QDII or (ii) if all the businesses of the issuer are in the positive list promulgated by the ROC Executive Yuan, the holder withdraws shares which accounts for 10% or more of the issuer's issued shares and it otherwise obtains the approval of the Investment Commission of the MOEA. However, QDIIs are currently prohibited from investing in certain industries, and their investment in a given company is restricted to a certain percentage pursuant to a list promulgated by the FSC and amended from time to time. In addition, there are restrictions on the amount remitted to the ROC for investments by each individual QDII and for QDIIs in the aggregate in certain industries. Accordingly, the qualification criteria for a PRC person to make investment, the restrictions on investment in certain industries and the investment threshold imposed by the FSC might accordingly cause a holder of depositary shares who is a PRC person to be unable to withdraw and hold the underlying shares.

Under existing laws and regulations relating to foreign exchange control, a depositary or a holder of depositary receipts may, without obtaining further approvals from the CBC or any other governmental authority or agency of the ROC, convert NT dollars into other currencies, including U.S. dollars, in respect of the following: (1) proceeds of the sale of shares represented by depositary receipts, (2) proceeds of the sale of shares received as stock dividends and deposited into the depositary receipt facility and (3) any cash dividends or cash distributions received. In addition, a depositary, also without any of these approvals, may convert inward remittances of payments into NT dollars for purchases of shares for deposit into the depositary receipt facility against the creation of additional depositary receipts. A depositary may be required to obtain foreign exchange approval from the CBC on a payment-by-payment basis for conversion from NT dollars into foreign currencies relating to the sale of subscription rights for new shares if the proceeds are in excess of US\$100,000 per remittance. Proceeds from the sale of the underlying shares withdrawn from the depositary receipt facility may be used for reinvestment in the TWSE or the TPEx securities, subject to relevant regulations.

Under current ROC laws, a non-ROC holder of depositary receipts, when withdrawing the shares underlying the depositary receipts, will be required to register with the TWSE and appoint a local agent to open a securities trading account with a local brokerage firm and an NT dollar bank account, pay taxes, remit funds, exercise rights relating to the securities and perform such other matters as may be designated by such holder of depositary receipts on behalf of and as an agent for such holder of depositary receipts. Any such holder of depositary receipts is also required to appoint a local bank or securities firm to act as custodian to hold the securities and any cash proceeds in safekeeping, to make confirmations, to settle trades and to report all relevant information. In addition, such holder of depositary receipts is required to appoint a tax guarantor for

filing tax returns and making tax payments. Without meeting the foregoing requirements, the withdrawing holder of depositary receipts would be unable to hold and subsequently sell or otherwise transfer the underlying shares withdrawn from the depositary receipt facility on the TWSE or otherwise.

Overseas Corporate Bonds

Since 1989, the ROC Securities and Futures Commission has approved a series of overseas bonds issued by ROC companies listed on the TWSE in offerings outside the ROC. Under current ROC law and subject to the FSC approval, overseas corporate bonds can be (i) exchanged or converted by bondholders, other than persons of the PRC except for QDIIs, into shares of ROC companies; or (ii) converted into or exchanged for depositary receipts issued by the same ROC company or by the issuing company of the exchange shares, in the case of exchangeable bonds. The relevant regulations also permit ROC companies attaining public company status to issue corporate bonds in offerings outside the ROC. Proceeds from the sale of the shares converted from overseas convertible bonds may be used for reinvestment in securities listed on the TWSE or traded on the TPEx, subject to limitations and restrictions set for in "Foreign Investment" section above (as applicable).

According to the Securities Investment Regulations for Foreign Investors, a non-resident foreign converting bondholder, when exercising the conversion right to convert bonds into shares of a ROC company, will be required to register with the TWSE, and to appoint a local agent (with such qualifications provided by the FSC) to open a securities trading account with a local brokerage firm, pay ROC taxes, remit funds, exercise stockholders' rights and perform such other matters as may be designated by such converting bondholder on behalf of and as agent for such converting bondholder. The converting holder is also required to appoint a custodian bank to hold the securities and any cash proceeds in safekeeping, to make confirmation to settle trades, and to report all relevant information. Additionally, such converting holder is required to appoint a tax guarantor for filing tax returns and making tax payments. According to the Securities Investment Regulations for PRC Nationals, a PRC holder of overseas convertible bonds issued by a ROC company may not convert or exchange such convertible into shares unless (i) it is a qualified QDII, (ii) the businesses of the issuer are in the Positive List promulgated by the MOEA, and (iii) the shares converted from overseas convertible bonds, in general, would not, jointly with the other PRC stockholders of the issuer, account for 10% or more of the issuer's shares.

Unless otherwise limited by the CBC, a ROC company may, without obtaining further approval from the CBC or any other government authority of the ROC, convert NT Dollars to other non-ROC currencies, including US Dollars, for making payments in respect of proceeds of the redemption of the bonds or repayment of principal of and interest on the bonds. A non-ROC converting bondholder may, through its local agent and without obtaining prior approval from the CBC, convert into foreign currencies net proceeds realized from the sale of certificates of bond conversion entitlement, shares or any stock dividends relating to such shares, or any cash dividend or other cash distribution in respect of such shares, as well as inward remittance of subscription payments in respect of rights offerings. However, a converting bondholder must obtain prior approval from the CBC on a payment-by-payment basis for conversion from NT Dollars into other currencies in respect of the proceeds from the sale of subscription rights for newly issued shares.

Other Foreign Investment

In addition to investments permitted under the Foreign Regulations and PRC Regulations, foreign investors (other than PRC persons) who wish to make (i) direct investments in the shares of ROC private companies or (ii) investment in 10% or more of the equity interest of an ROC company listed on the TWSE or the TPEx in any single transaction and PRC investors who wish to make (i) direct investment in the shares of ROC private companies or (ii) investments, individually or aggregately, in 10% or more of the equity interest of an ROC company listed on the TWSE or the TPEx in certain industries on the positive list, as promulgated by the MOEA are required to submit an Investment Approval application to the Investment Commission of the MOEA or other government authority. The Investment Commission of the MOEA or such other government authority reviews Investment Approval application and approves or disapproves each application after consultation with other governmental agencies (such as the CBC and the FSC). PRC investors other than QDII are prohibited from making investments in an ROC company listed on the TWSE or the TPEx if the investment is less than 10% of the equity interest of such ROC company.

Under current law, any non-ROC person possessing an Investment Approval may remit capital for the approved investment and is entitled to repatriate annual net profits, interest and cash dividends attributable to such investment. Dividends attributable to such investment may be repatriated upon submitting certain required documents to the remitting bank, and investment capital and capital gains attributable to such investment may be repatriated after approvals of the Investment Commission of the MOEA or other authorities have been obtained.

In addition to the general restriction against direct investment by foreign investors in securities of ROC companies, foreign investors (except in certain limited cases) are currently prohibited from investing in certain industries in the ROC pursuant to a Negative List, as amended by the MOEA. The prohibition on foreign investment in the prohibited industries specified in the Negative List is absolute in the absence of specific exemption from the application of the Negative List. Pursuant to the Negative List, certain other industries are restricted so that foreign investors (except in certain limited cases) may invest in such industries only up to a specified level and with the specific approval of the relevant competent authority which is responsible for enforcing the relevant legislation which the Negative List is intended to implement.

On the other hand, in addition to the general restriction against direct investment by PRC investors in securities of ROC companies, PRC investors may only invest in certain industries in the Positive List, as promulgated by the MOEA. In addition, PRC investor who wishes to be elected as an ROC company's director or supervisor shall also submit an Investment Approval application to the Investment Commission of the MOEA or other government authority for approval.

Exchange Controls

The ROC Foreign Exchange Control Statute and regulations provide that all foreign exchange transactions must be executed by banks designated by the FSC and the CBC to handle foreign exchange transactions. Current regulations favor trade-related foreign exchange transactions. Consequently, foreign currency earned from exports of merchandise and services may now be retained and used freely by exporters. All foreign currency needed for the importation of merchandise and services may be purchased freely from the designated foreign exchange banks

Aside from trade-related foreign exchange transactions, ROC companies and individual residents of the ROC may, without foreign exchange approval, remit to and from the ROC foreign currencies of up to US\$50 million, or its equivalent, and US\$5 million, or its equivalent, respectively, in each calendar year. These limits apply to remittances involving a conversion between NT dollars and U.S. dollars or other foreign currencies. In addition, all private enterprises are required to register all medium- and long-term foreign debt with the CBC.

In addition, a foreign person may, subject to certain requirements but without foreign exchange approval, remit to and from the ROC foreign currencies of up to US\$100,000 (or its equivalent) per remittance if the required documentation is provided to the ROC authorities. This limit applies to remittances involving a conversion between NT dollars and U.S. dollars or other foreign currencies.

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