IMPORTANT NOTICE

IMPORTANT: You must read the following before continuing. If you are not the intended recipient of this message, please do not distribute or copy the information contained in this e-mail, but instead, delete and destroy all copies of this e-mail including all attachments. The following applies to the Offering Circular following this page, and you are therefore advised to read this carefully before reading, accessing or making any other use of the Offering Circular. In accessing the Offering Circular, you agree to be bound by the following terms and conditions, including any modifications to them any time you receive any information from SK hynix, Inc. (the "Company") as a result of such access.

NOTHING IN THIS ELECTRONIC TRANSMISSION CONSTITUTES AN OFFER OF SECURITIES FOR SALE IN ANY JURISDICTION WHERE IT IS UNLAWFUL TO DO SO. THE SECURITIES HAVE NOT BEEN, AND WILL NOT BE, REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"), AND SUBJECT TO CERTAIN EXCEPTIONS, MAY NOT BE OFFERED OR SOLD WITHIN THE UNITED STATES. THE SECURITIES ARE BEING OFFERED AND SOLD OUTSIDE THE UNITED STATES TO NON-U.S. PERSONS IN RELIANCE ON REGULATION S AND WITHIN THE UNITED STATES TO "QUALIFIED INSTITUTIONAL BUYERS" IN RELIANCE ON RULE 144A UNDER THE SECURITIES ACT ("RULE 144A"). PROSPECTIVE PURCHASERS ARE HEREBY NOTIFIED THAT SELLERS OF THE SECURITIES MAY BE RELYING ON THE EXEMPTION FROM THE PROVISIONS OF SECTION 5 OF THE SECURITIES ACT PROVIDED BY RULE 144A. FOR A DESCRIPTION OF THESE AND CERTAIN FURTHER RESTRICTIONS ON OFFERS, SALES AND TRANSFERS OF THE SECURITIES AND DISTRIBUTION OF THIS OFFERING CIRCULAR, SEE "PLAN OF DISTRIBUTION" AND "TRANSFER RESTRICTIONS."

THE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE U.S. SECURITIES AND EXCHANGE COMMISSION, ANY STATE SECURITIES COMMISSION IN THE UNITED STATES OR ANY OTHER U.S. REGULATORY AUTHORITY, NOR HAVE ANY OF THE FOREGOING AUTHORITIES PASSED UPON OR ENDORSED THE MERITS OF THE OFFERING OF THE SECURITIES OR THE ACCURACY OR ADEQUACY OF THIS OFFERING CIRCULAR. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE IN THE UNITED STATES.

THE FOLLOWING OFFERING CIRCULAR MAY NOT BE FORWARDED OR DISTRIBUTED TO ANY OTHER PERSON AND MAY NOT BE REPRODUCED IN ANY MANNER WHATSOEVER. ANY FORWARDING, DISTRIBUTION OR REPRODUCTION OF THIS DOCUMENT IN WHOLE OR IN PART IS UNAUTHORIZED. FAILURE TO COMPLY WITH THIS DIRECTIVE MAY RESULT IN A VIOLATION OF THE SECURITIES ACT OR THE APPLICABLE LAWS OF OTHER JURISDICTIONS. ANY INVESTMENT DECISION SHOULD BE MADE ON THE BASIS OF THE FINAL TERMS AND CONDITIONS OF THE RELEVANT SECURITIES. IF YOU HAVE GAINED ACCESS TO THIS TRANSMISSION CONTRARY TO ANY OF THE FOREGOING RESTRICTIONS, YOU ARE NOT AUTHORIZED AND WILL NOT BE ABLE TO PURCHASE ANY OF THE SECURITIES DESCRIBED THEREIN.

Confirmation of your representation: In order to be eligible to view the Offering Circular or make an investment decision with respect to the securities, an investor must be either (I) a non-U.S. person within the meaning of Regulation S under the Securities Act and the securities are purchased pursuant to Regulation S or (II) a qualified institutional buyer within the meaning of Rule 144A ("QIB"). The Offering Circular is being sent at your request and by accepting the e-mail and accessing the Offering Circular, you shall be deemed to have represented to the Company that (1) you and any customers you represent are either (a) a QIB or (b) a non-U.S. person and that the e-mail address that you gave to the Company and to which this e-mail has been delivered is not located in the United States and, to the extent you purchase the securities, you will be doing so pursuant to Regulation S and (2) you consent to the delivery of the Offering Circular and any amendments and supplements thereto by electronic transmission.

You are reminded that the following Offering Circular has been delivered to you on the basis that you are a person into whose possession the following Offering Circular may be lawfully delivered in accordance with the laws of jurisdiction in which you are located and you may not, nor are you authorized to, deliver or disclose the contents of the following Offering Circular to any other person. If this is not the case, you must return this Offering Circular to the Company immediately.

The materials relating to the offering do not constitute, and may not be used in connection with, an offer or solicitation in any place where offers or solicitations are not permitted by law. If a jurisdiction requires that the offering be made by a licensed broker or dealer and the initial purchasers or any affiliate of the initial purchasers is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by the initial purchasers or such affiliate on behalf of the issuer in such jurisdiction.

The following Offering Circular has been sent to you in an electronic form. You are reminded that documents transmitted via this medium may be altered or changed during the process of electronic transmission and consequently, none of BNP Paribas, Merrill Lynch International, Citigroup Global Markets Inc., Crédit Agricole Corporate and Investment Bank, The Hongkong and Shanghai Banking Corporation Limited, MUFG Securities Asia Limited and Standard Chartered Bank (collectively, the "Initial Purchasers") nor any person who controls any of them nor any director, officer, employee nor agent of any of them or affiliate of any such person accepts any liability or responsibility whatsoever in respect of any difference between the Offering Circular distributed to you in electronic format and the hard copy version available to you on request from the Initial Purchasers.

You should not reply by e-mail to this announcement, and you may not purchase any securities by doing so. Any reply e-mail communications, including those you generate by using the "Reply" function on your e-mail software, will be ignored or rejected. You are responsible for protecting against viruses and other destructive items. Your use of this e-mail is at your own risk and it is your responsibility to take precautions to ensure that it is free from viruses and other items of a destructive nature.

OFFERING CIRCULAR **STRICTLY CONFIDENTIAL**

SK hynix Inc.

(a corporation organized under the laws of the Republic of Korea)

US$750,000,000 6.250% Notes due 2026
US$1,000,000,000 6.375% Sustainability-Linked Notes due 2028
and
US$750,000,000 6.500% Green Notes due 2033

SK hynix Inc. (the "Company") is offering US$750,000,000 aggregate principal amount of 6.250% Notes due 2026 (the "2026 Notes"), US$1,000,000,000 aggregate principal amount of 6.375% Sustainability-Linked Notes due 2028 (the "Sustainability-Linked Notes") and US$750,000,000 aggregate principal amount of 6.500% Green Notes due 2033 (the "Green Notes," and together with the 2026 Notes and the Sustainability-Linked Notes, the "Notes"). The 2026 Notes will mature on January 17, 2026 and will bear interest at the rate of 6.250% per annum from, and including January 17, 2023 to, but excluding, January 17, 2026. The Sustainability-Linked Notes will mature on January 17, 2028 and will bear interest at the rate of 6.375% per annum from, and including, January 17, 2023 to, but excluding, January 17, 2028. The Green Notes will mature on January 17, 2033 and will bear interest at the rate of 6.500% per annum from, and including, January 17, 2023 to, but excluding, January 17, 2033. Interest on each of the Notes will be payable semi-annually in arrears on January 17 and July 17 of each year, commencing July 17, 2023.

For the Sustainability-Linked Notes, upon the occurrence of a Trigger Event, the rate of interest will increase by 0.75% per annum with effect from (and including) the Coupon Reset Date to (but excluding) the date of redemption of the Sustainability-Linked Notes. If, following an increase in the rate of interest after the Trigger Event, the Company achieves the Sustainability Performance Target and the Trigger Event is no longer continuing, the rate of interest will remain unchanged and there will not be any decrease to the rate of interest. All defined terms herein have the same meanings as defined in Condition 4.2 of "Terms and Conditions of the Sustainability-Linked Notes."

The Company may, at its option, redeem all, but not some only, of the Notes at any time at their principal amount plus accrued interest in the event of certain changes in tax law as described under "Terms and Conditions of the 2026 Notes and the Green Notes – Redemption and Purchase – Redemption for Taxation Reasons" and "Terms and Conditions of the Sustainability-Linked Notes – Redemption and Purchase – Redemption for Taxation Reasons."

The Notes will be unsecured and will be the direct, unconditional and unsubordinated general obligations of the Company and will rank *pari passu* among themselves and at least equally with all other outstanding unsecured and unsubordinated general obligations of the Company, except as may be required by mandatory provisions of law.

The Sustainability-Linked Notes are being issued under the SK hynix Sustainability-Linked Financing Framework, adopted by the Company in December 2022 (the "Sustainability-Linked Financing Framework"). The Green Notes are being issued as "green bonds" under the SK hynix Green Financing Framework, as adopted by the Company in January 2021 (the "Green Financing Framework"). See "Use of Proceeds."

Application will be made to the Singapore Exchange Securities Trading Limited (the "SGX-ST") for the listing and quotation of the Notes on the SGX-ST. The SGX-ST assumes no responsibility for the correctness of any of the statements made, opinions expressed or reports contained in this Offering Circular. Approval in-principle from, admission to the Official List of, and the listing and quotation of the Notes on, the SGX-ST are not to be taken as an indication of the merits of the Company or the Notes. Application will be made for the Green Notes to be recognized under the SGX Sustainable Fixed Income initiative on the SGX-ST. There is no guarantee that such application for recognition under the SGX Sustainable Fixed Income initiative will be approved. Recognition under the SGX Sustainable Fixed Income initiative does not guarantee that the Green Notes will satisfy any investor's expectations or requirements on its sustainability-related performance or impact. If approved, the SGX-ST may remove the recognition from the Green Notes at its discretion. The latest list of fixed income securities that have been granted recognition under the SGX Sustainable Fixed Income initiative is available on the SGX's website.

The Notes are each expected to be rated "Baa2" by Moody's Investors Service, Inc. ("Moody's") and "BBB-" by S&P Global Ratings, a division of S&P Global, Inc. ("S&P"). A rating is not a recommendation to buy, sell or hold securities and may be subject to revision, suspension or withdrawal at any time by the assigning rating organization.

The Notes have not been and will not be registered under the U.S. Securities Act of 1933, as amended (the "Securities Act"), and subject to certain exceptions, may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons (as defined in Regulation S under the Securities Act ("Regulation S")). The Notes are being offered and sold outside the United States to non-U.S. persons in reliance on Regulation S and within the United States to "qualified institutional buyers" in reliance on Rule 144A under the Securities Act ("Rule 144A"). Prospective purchasers are hereby notified that sellers of the Notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A. For a description of these and certain further restrictions on offers, sales and transfers of the Notes and distribution of this Offering Circular, see "Plan of Distribution" and "Transfer Restrictions."

The Notes have not been approved or disapproved by the U.S. Securities and Exchange Commission, any State securities commission in the United States or any other U.S. regulatory authority, nor have any of the foregoing authorities passed upon or endorsed the merits of the offering of the Notes or the accuracy or adequacy of this Offering Circular. Any representation to the contrary is a criminal offense in the United States.

Investing in the Notes involves risks. See "Risk Factors" beginning on page 11 to read about certain risk factors you should consider before investing in the Notes.

Issue Price:

2026 Notes: 99.615%
Sustainability-Linked Notes: 99.511%
Green Notes: 98.410%
(in each case, plus accrued interest, if any, from January 17, 2023)

Delivery of the Notes in book-entry form will be made on or about January 17, 2023.

Joint Bookrunners and Lead Managers

BNP PARIBAS **BofA Securities** **Citigroup** **Crédit Agricole CIB**

HSBC **MUFG** **Standard Chartered Bank**

The date of this Offering Circular is January 10, 2023.

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You should rely only on the information contained in this Offering Circular. The Company has not authorized anyone to provide you with information that is different. This Offering Circular may only be used where it is legal to sell these securities. The information in this Offering Circular may only be accurate as of the date of this Offering Circular.

IN CONNECTION WITH THIS OFFERING, TO THE EXTENT PERMITTED BY, AND IN ACCORDANCE WITH, APPLICABLE LAWS AND REGULATIONS, ANY OF THE INITIAL PURCHASERS APPOINTED AS A STABILIZATION MANAGER (THE "STABILIZATION MANAGER") (OR PERSONS ACTING ON BEHALF OF THE STABILIZATION MANAGER) MAY OVER-ALLOT OR EFFECT TRANSACTIONS WITH A VIEW TO SUPPORTING THE MARKET PRICE OF THE NOTES AT A LEVEL HIGHER THAN THAT WHICH MIGHT OTHERWISE PREVAIL. HOWEVER, THERE IS NO ASSURANCE THAT THE STABILIZATION MANAGER (OR PERSONS ACTING ON BEHALF OF THE STABILIZATION MANAGER) WILL UNDERTAKE SUCH STABILIZATION. ANY STABILIZATION MAY BEGIN ON OR AFTER THE DATE ON WHICH ADEQUATE PUBLIC DISCLOSURE OF THE TERMS OF THE OFFER OF THE NOTES IS MADE AND, IF BEGUN, MAY BE ENDED AT ANY TIME, BUT IT MUST END NO LATER THAN THE EARLIER OF 30 DAYS AFTER THE ISSUE DATE OF THE NOTES AND 60 DAYS AFTER THE DATE OF THE ALLOTMENT OF THE NOTES.

THE NOTES HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKETS ACT OF KOREA. ACCORDINGLY, THE NOTES MAY NOT BE OFFERED, SOLD OR DELIVERED, DIRECTLY OR INDIRECTLY, IN KOREA OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, ANY RESIDENT OF KOREA (AS SUCH TERM IS DEFINED UNDER THE FOREIGN EXCHANGE TRANSACTIONS ACT OF KOREA AND ITS PRESIDENTIAL DECREE) OR TO OTHERS FOR RE-OFFERING OR RESALE, DIRECTLY OR INDIRECTLY, IN KOREA OR TO ANY RESIDENTS OF KOREA, EXCEPT AS OTHERWISE PERMITTED UNDER APPLICABLE KOREAN LAWS AND REGULATIONS. IN ADDITION, DURING THE FIRST YEAR AFTER THE ISSUANCE OF THE NOTES, THE NOTES MAY NOT BE TRANSFERRED TO ANY RESIDENT OF KOREA OTHER THAN A KOREAN QUALIFIED INSTITUTIONAL BUYER (A "KOREAN QIB," AS DEFINED IN THE REGULATION ON ISSUANCE AND PUBLIC DISCLOSURE, ETC. OF SECURITIES OF KOREA) WHO IS REGISTERED WITH THE KOREA FINANCIAL INVESTMENT ASSOCIATION AS A KOREAN QIB, PROVIDED THAT THE AMOUNT OF THE NOTES ACQUIRED BY SUCH KOREAN QIBS IN THE PRIMARY MARKET IS LIMITED TO NO MORE THAN 20% OF THE AGGREGATE ISSUE AMOUNT OF THE NOTES.

No person has been authorized in connection with any offering of the Notes to give any information or make any representation other than as contained in this Offering Circular and, if given or made, such information or representation must not be relied upon as having been authorized by the Company, by any Agent (as defined in "Terms and Conditions of the 2026 Notes and the Green Notes" and "Terms and Conditions of the Sustainability-Linked Notes") or by the Initial Purchasers (as defined in "Plan of Distribution"). This Offering Circular does not constitute an offer to sell or a solicitation of an offer to buy any Notes by any person except in compliance with all applicable laws and regulations. The Initial Purchasers and the Agents have not separately verified the information contained in this Offering Circular. No representation or warranty, express or implied, is made by the Initial Purchasers or any of their affiliates or advisors, or any Agent, as to the accuracy or completeness of the information contained in this Offering Circular, and nothing contained in this Offering Circular is, or shall be relied upon as, a promise or representation by the Initial Purchasers or their affiliates or advisors, or any Agent. Neither the delivery of this Offering Circular nor any sale made in connection with this Offering Circular shall under any circumstances imply that the information in this Offering Circular is correct as of any date subsequent to the date of this Offering Circular or constitute a representation that there has been no change or development reasonably likely to involve a material adverse change in the Company's affairs since the date of this Offering Circular. To the fullest extent permitted by law, none of the Initial Purchasers or the Agents accept any responsibility for the contents of this Offering Circular or for any other statement, made or purported to be made by the Initial Purchasers or the Agents on their respective behalf in connection with the Company or the issue and offering of the Notes. Each Initial Purchaser and each Agent accordingly disclaims any and all responsibility or liability whether arising in tort or contract or otherwise which it might otherwise have in respect of the information contained in this Offering Circular, any other information provided by the Company in connection with the offering or any other such statement. Each person receiving this Offering Circular acknowledges that such person has not relied on the Initial Purchasers or any of their affiliates or advisors in connection with investigation of the accuracy of such information or such person's investment decisions.

The Notes have not been registered with or approved or disapproved by the U.S. Securities and Exchange Commission, any state securities commission or other regulatory authority, nor has any of the foregoing authorities passed upon or endorsed the merits of this offering or the accuracy or adequacy of this Offering Circular. Any representation to the contrary is a criminal offense.

Notification under Section 309B(1) of the Securities and Futures Act 2001 of Singapore (the "SFA") – The Company has determined, and hereby notifies all relevant persons (as defined in Section 309A(1) of the SFA), that the Notes are prescribed capital markets products (as defined in the Securities and Futures (Capital Markets Products) Regulations 2018 of Singapore) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

This Offering Circular is for distribution only to, and is only directed at, persons who (i) are outside of the United Kingdom, (ii) have professional experience in matters relating to investments and who qualify as investment professionals within the meaning of Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (iii) are persons falling within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc.") of the Financial Promotion Order, or (iv) are persons to whom, in connection with the issue or sale of any securities, an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as "relevant persons"). The Notes are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such Notes will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this Offering Circular or any of its contents.

This Offering Circular does not constitute, and may not be used for purposes of, an offer, invitation or solicitation by anyone in any jurisdiction or in any circumstances in which such offer, invitation or solicitation is not authorized or to any person to whom it is unlawful to make such offer, invitation or solicitation. The distribution of this Offering Circular and the offering of the Notes in certain jurisdictions may be restricted by law. Persons into whose possession this Offering Circular may come are required by the Company and the Initial Purchasers to inform themselves about and to observe the relevant restrictions. For a description of certain restrictions on offers and sales of the Notes and distribution of this Offering Circular, see "Plan of Distribution—Selling Restrictions" and "Transfer Restrictions." No action is being taken in any jurisdiction to permit an offering to the general public of Notes or the distribution of this Offering Circular in any jurisdiction where action would be required for those purposes.

In making an investment decision, prospective investors must rely on their own examination of the Company and the terms of the offering of the Notes, including the merits and risks involved. The Company is not and no Agent is making any representation to any purchaser of the Notes regarding the legality of an investment in the Notes by such purchaser under any legal investment or similar laws or regulations. The contents of this Offering Circular should not be construed as providing legal, business, accounting or tax advice.

NOTICE TO CAPITAL MARKET INTERMEDIARIES AND PROSPECTIVE INVESTORS PURSUANT TO PARAGRAPH 21 OF THE HONG KONG SFC CODE OF CONDUCT

Prospective investors should be aware that certain intermediaries in the context of this offering of the Notes, including certain Initial Purchasers, are "capital market intermediaries" (together, the "CMIs") subject to Paragraph 21 of the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission (the "SFC Code"). This notice to prospective investors is a summary of certain obligations the SFC Code imposes on such CMIs, which require the attention and cooperation of prospective investors. Certain CMIs may also be acting as "overall coordinators" (together, the "OCs") for this offering and are subject to additional requirements under the SFC Code.

Prospective investors who are the directors, employees or major shareholders of the Company (as defined in this Offering Circular), a CMI or its group companies would be considered under the SFC Code as having an association (an "Association") with the Company, the CMI or the relevant group company (as the case may be). Prospective investors associated with the Company or any CMI (including its group companies) should specifically disclose this when placing an order for the Notes and should disclose, at the same time, if such orders may negatively impact the price discovery process in relation to this offering. Prospective investors who do not disclose their Associations are hereby deemed not to be so associated. Where prospective investors disclose their Associations but do not disclose that such order may negatively impact the price discovery process in relation to this offering, such order is hereby deemed not to negatively impact the price discovery process in relation to this offering.

Prospective investors should ensure, and by placing an order prospective investors are deemed to confirm, that orders placed are bona fide, are not inflated and do not constitute duplicated orders (i.e., two or more corresponding or identical orders placed via two or more CMIs). If a prospective investor is an asset management arm affiliated with any Initial Purchaser, such prospective investor should indicate when placing an order if it is for a fund or portfolio where the Initial Purchaser or its group company has more than 50% interest, in which case it will be classified as a "proprietary order" and subject to appropriate handling by CMIs in accordance with the SFC Code and should disclose, at the same time, if such "proprietary order" may negatively impact the price discovery process in relation to this offering. Prospective investors who do not indicate this information when placing an order are hereby deemed to confirm that their order is not a "proprietary order." If a prospective investor is otherwise affiliated with any Initial Purchaser, such that its order may be considered to be a "proprietary order" (pursuant to the SFC Code), such prospective investor should so indicate to the relevant Initial Purchaser when placing such order. Prospective investors who do not indicate this information when placing an order are hereby deemed to confirm that their order is not a "proprietary order." Where prospective investors disclose such information but do not disclose that such "proprietary order" may negatively impact the price discovery process in relation to this offering, such "proprietary order" is hereby deemed not to negatively impact the price discovery process in relation to this offering.

Prospective investors should be aware that certain information may be disclosed by CMIs (including private banks) which is personal and/or confidential in nature to the prospective investor. By placing an order, prospective investors are deemed to have understood and consented to the collection, disclosure, use and transfer of such information by the relevant Initial Purchasers and/or any other third parties as may be required by the SFC Code, including to the Company, any OCs, relevant regulators and/or any other third parties as may be required by the SFC Code, it being understood and agreed that such information shall only be used for the purpose of complying with the SFC Code, during the bookbuilding process for this offering. Failure to provide such information may result in that order being rejected.

CERTAIN DEFINED TERMS AND CONVENTIONS

References to “Korea” or the “Republic” are references to The Republic of Korea. References to the “Government” are references to the government of the Republic of Korea. All references to the “Issuer” or the “Company” herein are references to SK hynix Inc. and its subsidiaries, as the context requires.

In this Offering Circular, references to “Won” or “₩” are to the currency of Korea and references to “U.S. dollars” or “US$” are to the currency of the United States of America. This Offering Circular contains a translation of certain Won amounts into U.S. dollars at specified rates solely for the convenience of the reader. These translations should not be construed as representations that the Won amounts actually represent such U.S. dollar amounts or could be converted into U.S. dollars at the rates indicated. Unless otherwise specified, all conversions of Won into U.S. dollars were made at the base rate under the market average exchange rate system, announced by Seoul Money Brokerage Services, Ltd. in Seoul, between U.S. dollars and Won, rounded to the nearest tenth of one Won (the “Market Average Exchange Rate”). Unless otherwise specified, all conversions of U.S. dollars into Won have been made at the Market Average Exchange Rate in effect on September 30, 2022, which was ₩1,434.8 to US$1.00. For a discussion of historical information regarding the rate of exchange between Won and the U.S. dollar, see “Exchange Rate Information.” No representation is made that the Won or U.S. dollar amounts referred to in this Offering Circular could have been or could be converted into U.S. dollars or Won, as the case may be, at any particular rate or at all.

ENFORCEABILITY OF CIVIL LIABILITIES

The Company is a corporation organized under the laws of Korea. A majority of its directors and officers and certain other persons named in this Offering Circular reside in Korea, and a significant portion of the assets of the directors and officers and certain other persons named in this Offering Circular and a substantial majority of the Company’s assets are located in Korea. As a result, it may not be possible for investors to effect service of process within the United States upon the Company or such persons or to enforce against any of them in the United States court judgments obtained in U.S. courts, including judgments predicated upon the civil liability provisions of the securities laws of the United States or any State or territory within the United States. There is doubt as to the enforceability in Korea, either in original actions or in actions for enforcement of judgments of U.S. courts, of civil liabilities predicated on the securities laws of the United States or any State or territory within the United States.

AVAILABLE INFORMATION

To permit compliance with Rule 144A under the Securities Act in connection with the sale of the Notes, the Company will be required under the Fiscal Agency Agreement to be entered into as of the closing date of this offering (the “Fiscal Agency Agreement”) among the Company, Citicorp International Limited, as the fiscal agent (the “Fiscal Agent”) and Citibank, N.A., London

Branch, as the paying agent, transfer agent and registrar with respect to the Notes, to furnish, upon request, to a Holder (as defined in "Terms and Conditions of the 2026 Notes and the Green Notes" and "Terms and Conditions of the Sustainability-Linked Notes") of a Note and a prospective investor designated by such Holder, the information required to be delivered under Rule 144A(d)(4) under the Securities Act unless at the time of the request the Company is a reporting company under Section 13 or Section 15(d) of the United States Securities Exchange Act of 1934, as amended (the "Exchange Act"), or the Company is exempt from the registration requirements of Section 12(g) of the Exchange Act (and therefore is required to publish on the Company's website, in English, certain information pursuant to Rule 12g3-2(b) under the Exchange Act). In accordance with the Fiscal Agency Agreement, the Fiscal Agent also will make available for inspection by Holders of the Notes upon prior written notice and satisfaction of proof of holding, at the corporate trust office of the Fiscal Agent or, in certain cases, arrange for the mailing to such Holders, certain reports or communications received from the Company. See "Terms and Conditions of the 2026 Notes and the Green Notes" and "Terms and Conditions of the Sustainability-Linked Notes."

PRESENTATION OF FINANCIAL INFORMATION

The Company's audited consolidated financial statements as of and for the years ended December 31, 2021 and 2020 included in this Offering Circular have been prepared in accordance with the International Financial Reporting Standards as adopted by the Republic of Korea ("K-IFRS"), which may differ in certain respects from generally accepted accounting principles in other countries, including generally accepted accounting principles in the United States and International Financial Reporting Standards applied in other countries. The Company's unaudited condensed consolidated interim financial statements as of September 30, 2022 and for the three and nine months ended September 30, 2022 and 2021 included in this Offering Circular have been prepared in accordance with K-IFRS No. 1034 "*Interim Financial Reporting*."

All financial information, descriptions and other information regarding the Company are, unless indicated otherwise, given on a consolidated basis. Any discrepancies in the tables included in this Offering Circular between the listed amounts and totals thereof are due to rounding.

SUMMARY

The following summary highlights information appearing elsewhere in this Offering Circular and does not contain all of the information you should consider in making your investment decision. You should read this summary together with the more detailed information, including the financial statements and the related notes, appearing elsewhere in this Offering Circular. You should carefully consider, among other things, the matters discussed in "Risk Factors."

The Company is one of the world's largest memory semiconductor companies and engages in the design, manufacture and sale of advanced memory semiconductors. In the dynamic random access memory ("DRAM") market, the Company is ranked second globally based on revenue with a market share of 28.2% in the first nine months of 2022, according to market research conducted by Omdia ("Omdia"). In addition, the Company was the second largest supplier of NAND flash memory in terms of revenue, with a worldwide market share of 19.4% in the first nine months of 2022, according to Omdia. The Company's memory products, consisting of both DRAM and NAND flash memory products, can be used in virtually all electronic devices, including PCs, servers, graphic cards, mobile devices such as smartphones and tablets, and other consumer electronics products. The Company's product portfolio also includes non-memory semiconductors, including complementary metal-oxide semiconductor ("CMOS") image sensors that are used to perform the role of electronic film in digital photographing devices such as smartphones, tablets, PC laptops and surveillance cameras. The Company has also been engaging in the foundry business through SK hynix system ic Inc. ("SK hynix system ic"), a wholly-owned subsidiary, and Key Foundry Co., Ltd. ("Key Foundry"), a wholly-owned subsidiary acquired by the Company in August 2022.

The Company sells a wide variety of DRAM and NAND flash memory products with various configuration options, architectures and performance characteristics tailored to meet application- and customer-specific needs. The Company believes that it is one of the world's leading companies in developing DRAM with advanced specifications, particularly those relating to higher density, faster data-processing speed and lower power consumption. The Company is continually developing higher-density modules, solid-state drives ("SSDs") and other customized DRAM and NAND flash memory products that are optimized for use in specific applications. The Company believes that offering customized products provides opportunities to mitigate the negative effects of the cyclicality of the memory products market, and its customized products typically command higher prices than commodity DRAM because of their superior performance and specifically tailored characteristics.

The Company owns and operates wafer fabrication facilities ("fabs") in Icheon and Cheongju, Korea and Wuxi and Dalian, China. The Company also owns and operates assembly and testing facilities for back-end processing of its products in Icheon and Cheongju, Korea and Chongqing, China. As part of the Company's efforts to reduce unit manufacturing costs, improve manufacturing yields and enhance its profitability, the Company periodically phases out the operations of its older fabs as well as upgrading them to new fabs that implement more advanced processing technologies. In addition to regular maintenance and enhancement of existing fabs, the Company began mass production operations of its M16 fab in Icheon, Korea starting in the first quarter of 2021. In October 2022, the Company began construction of a new extension fab called M15X in Cheongju with targeted completion in early 2025. As part of its efforts to ensure its long-term competitiveness, the Company has also announced initiatives to construct an integrated industrial complex in Yongin, Korea for its next generation of fabs and research and development facilities.

In order to maintain its technological leadership, as well as to access new markets for its products, the Company engages in strategic initiatives, including entering into joint ventures and joint product development and supply agreements. From time to time, the Company may also acquire equity stakes in other industry players to further strengthen its business relationships as well as acquire complementary businesses that further strengthen the Company's leading position in the industry. In October 2020, the Company agreed to acquire the NAND flash memory and storage business of Intel Corporation ("Intel") (the "Intel NAND Business Acquisition"). In the first phase of such acquisition, the Company acquired Intel's NAND SSD business (including NAND SSD-related intellectual property and employees), as well as the NAND flash memory manufacturing facility in Dalian, China (the "Dalian Manufacturing Facility"), for US$6.1 billion. The Company created a wholly-owned subsidiary in the United States called SK hynix NAND Product Solutions Corp. (doing business as "Solidigm") to operate the acquired business. The Company paid an additional US$0.5 billion related to post-closing adjustments in the first nine months of 2022. In the second phase, the Company is expected to acquire the remaining assets, including the intellectual property related to the manufacture and design of NAND flash wafers, NAND flash wafers-related research and development employees and NAND flash wafers-related workforce at the Dalian Manufacturing Facility, for US$2.3 billion by March 2025. See "Business – Strategic Alliances, Investments and Acquisitions."

The Company's revenue was ₩31,900 billion in 2020, ₩42,998 billion in 2021, ₩30,621 billion in the first nine months of 2021 and ₩36,950 billion in the first nine months of 2022. The Company recorded profit for the year of ₩4,759 billion in 2020 and ₩9,616 billion in 2021, and profit for the period of ₩6,296 billion in the first nine months of 2021 and ₩5,962 billion in the first nine months of 2022. The Company had total assets of ₩96,386 billion and total equity of ₩62,191 billion as of December 31, 2021 and total assets of ₩109,546 billion and total equity of ₩68,723 billion as of September 30, 2022.

THE OFFERING

The following is a brief summary of the terms of the offering and is qualified in its entirety by the remainder of this Offering Circular. Words and expressions defined in "Terms and Conditions of the 2026 Notes and the Green Notes" and "Terms and Conditions of the Sustainability-Linked Notes" have the same meanings in this summary.

Issuer	SK hynix Inc.
Offering	US$750,000,000 aggregate principal amount of 6.250% Notes due 2026 (the "2026 Notes"), US$1,000,000,000 aggregate principal amount of 6.375% Sustainability-Linked Notes due 2028 (the "Sustainability-Linked Notes") and US$750,000,000 aggregate principal amount of 6.500% Green Notes due 2033 (the "Green Notes," and together with the 2026 Notes and the Sustainability-Linked Notes, the "Notes").
Issue Price	2026 Notes: 99.615% of the principal amount of the Notes. Sustainability-Linked Notes: 99.511% of the principal amount of the Notes. Green Notes: 98.410% of the principal amount of the Notes.
Issue Date	January 17, 2023
Maturity Date	2026 Notes: January 17, 2026 Sustainability-Linked Notes: January 17, 2028 Green Notes: January 17, 2033
Interest	6.250% per annum for the 2026 Notes, 6.375% per annum for the Sustainability-Linked Notes and 6.500% per annum for the Green Notes, in each case, from, and including, January 17, 2023 to, but excluding, the applicable maturity date. Interest on each of the Notes will be payable semi-annually in arrears on January 17 and July 17 of each year, commencing July 17, 2023. Interest on the Sustainability-Linked Notes will increase by 0.75% per annum upon the occurrence of a Trigger Event, with effect from (and including) the Coupon Reset Date to (but excluding) the date of redemption of the Sustainability-Linked Notes. If, following an increase in the interest after the Trigger Event, the Company achieves the Sustainability Performance Target and the Trigger Event is no longer continuing, interest will remain unchanged and there will not be any decrease to the interest. All defined terms herein have the same meanings as defined in Condition 4.2 of Terms and Conditions of the Sustainability-Linked Notes." See "Terms and Conditions of the 2026 Notes and the Green Notes – Interest" and "Terms and Conditions of the Sustainability-Linked Notes – Interest."

Ranking of the Notes . .	The Notes constitute direct, unconditional, unsubordinated and unsecured obligations of the Company and shall at all times rank *pari passu* and without any preference or priority among themselves and with all other present and future direct, unconditional, unsubordinated and unsecured obligations of the Company, except as may be required by mandatory provisions of law. See "Terms and Conditions of the 2026 Notes and the Green Notes – Status" and "Terms and Conditions of the Sustainability-Linked Notes – Status"
Certain Covenants	The Notes contain certain limitations on the ability of the Company to create or permit to be outstanding any mortgage, charge, lien, pledge or other security interest upon the whole or any part of its property, assets or revenues, present or future to secure certain types of indebtedness and to engage in a consolidation, merger or sale of all or substantially all of its assets. See "Terms and Conditions of the 2026 Notes and the Green Notes – Certain Covenants" and "Terms and Conditions of the Sustainability-Linked Notes – Certain Covenants"
Taxation and Additional Amounts	Payment of principal and interest in respect of the Notes, including payment of any additional amounts, by or on behalf of the Company, shall be made free and clear of, and without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature imposed, levied, collected, withheld or assessed by or on behalf of the Relevant Jurisdiction, except as required by applicable law. In that event, the Company will, subject to certain exceptions and limitations, pay to a holder of any Note such additional amounts as may be necessary in order that every net payment by the Company or a paying agent of the principal of and interest on the Notes and any other amounts payable on the Notes after withholding or deduction for or on account of any present or future tax, duty, assessment or governmental charge imposed or levied by a Relevant Jurisdiction will not be less than the amount provided for in the Notes to be then due and payable thereunder. See "Terms and Conditions of the 2026 Notes and the Green Notes – Taxation," "Terms and Conditions of the Sustainability-Linked Notes – Taxation" and "Taxation – Korean Taxation."
Redemption for Taxation Reasons . . .	Prior to the applicable maturity date, each of the Notes will be redeemable at the option of the Company at any time in whole, but not in part, at 100% of their principal amount plus accrued and unpaid interest, if any, to the date fixed for redemption, in the event of certain changes in the tax law of the Relevant Jurisdiction. See "Terms and Conditions of the 2026 Notes and the Green Notes – Redemption and Purchase – Redemption for Taxation Reasons" and "Terms and Conditions of the Sustainability-Linked Notes – Redemption and Purchase – Redemption for Taxation Reasons."

Change of Control	Noteholders will have the right to require the Company to redeem all or any part of their Notes at a purchase price equal to 100% of their principal amount plus accrued and unpaid interest, if any, to the date of redemption, upon the occurrence of a Change of Control Triggering Event as described under "Terms and Conditions of the 2026 Notes and the Green Notes – Redemption and Purchase – Change of Control Put Right" and "Terms and Conditions of the Sustainability-Linked Notes – Redemption and Purchase – Change of Control Put Right."
Further Issuances.	The Company may from time to time, without notice to or the consent of the holders of the Notes, create and issue further debt securities ranking *pari passu* with the Notes in all respects so that such further issue shall be consolidated and form a single series with the outstanding Notes. However, any additional debt securities shall be issued under a separate CUSIP, ISIN and/or other identifying number, as applicable, unless the additional debt securities are issued pursuant to a "qualified reopening" of the original series, are otherwise treated as part of the same "issue" of debt instruments as the original series or are issued with less than a de minimis amount of original issue discount, in each case for U.S. federal income tax purposes.
Listing	Application will be made to the SGX-ST for the listing and quotation of the Notes on the SGX-ST. For so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, the Notes, if traded on the SGX-ST, will be traded in a minimum board lot size of S$200,000 (or its equivalent in foreign currencies). Accordingly, the Notes, if traded on the SGX-ST, will be traded in a minimum board lot size of US$200,000. For so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, in the event that a global note is exchanged for the Notes in certificated form, the Company will appoint and maintain a paying agent in Singapore, where the Notes may be presented or surrendered for payment or redemption. In addition, in the event that a global note is exchanged for the Notes in certificated form, an announcement of such exchange will be made by or on behalf of the Company through the SGX-ST and such announcement will include all material information with respect to the delivery of the Notes in certificated form, including details of the paying agent in Singapore.
Use of Proceeds.	The net proceeds from the sale of the 2026 Notes are estimated to be US$743,362,500, the net proceeds from the sale of the Sustainability-Linked Notes are estimated to be US$990,110,000 and the net proceeds from the sale of the Green Notes are estimated to be US$734,325,000, in each case, after deduction of underwriting commissions but not estimated offering expenses. The net proceeds from the 2026 Notes and the Sustainability-Linked Notes will be used principally for general corporate purposes, including repayment of outstanding borrowings and capital expenditures. See "Use of Proceeds."

	The net proceeds from the Green Notes will be allocated toward the financing or refinancing, in whole or in part, of Eligible Projects (as defined in "Use of Proceeds") in accordance with the Green Financing Framework, which is in alignment with the Green Bond Principles 2018 published by the International Capital Markets Association. See "Use of Proceeds."
Ratings	The Notes are each expected to be rated "Baa2" by Moody's and "BBB-" by S&P. Such ratings of the Notes do not constitute a recommendation to buy, sell or hold the Notes and may be subject to revision or withdrawal at any time by the rating organizations. Such ratings should be evaluated independently of any other rating of the Notes, of other securities of the Company or of the Company.
Form and Denomination	The Notes will be issued in minimum denomination of US$200,000 and integral multiples of US$1,000 in excess thereof. The Notes initially offered and sold outside the United States to non-U.S. persons in reliance on Regulation S (the "Unrestricted Notes") will originally be represented by one or more unrestricted global notes. Notes initially offered and sold in the United States to qualified institutional buyers ("QIBs") in reliance on Rule 144A (the "Restricted Notes") will originally be represented by one or more restricted global notes. The Notes will be issued in the form of one or more fully registered global notes, deposited with a custodian for and registered in the name of a nominee of The Depository Trust Company ("DTC"). Except as described herein, the global notes will not be exchangeable for Notes in definitive registered form and will not be issued in definitive registered form. Any secondary market trading of book-entry interests in the Notes will take place through DTC participants, including Euroclear Bank SA/NV and Clearstream Banking, S.A. The Notes may not be sold or otherwise transferred except in accordance with the restrictions described under "Transfer Restrictions."
Delivery of the Notes . .	Delivery of the Notes, against payment in same-day funds, is expected on or about January 17, 2023.
Risk Factors	See "Risk Factors" for a discussion of certain factors that investors should consider in connection with an investment in the Notes.
Fiscal Agent, Paying Agent, Registrar and Transfer Agent	Citicorp International Limited will act as the fiscal agent (the "Fiscal Agent") and Citibank, N.A., London Branch will act as the paying agent, transfer agent and registrar under the Fiscal Agency Agreement for the Notes.
Governing Law	The Notes and the Fiscal Agency Agreement are governed by, and will be construed in accordance with, the laws of the State of New York.

Security Codes		**Restricted Notes**	**Unrestricted Notes**
	2026 Notes		
	CUSIP:	78392BAD9	Y8085FBJ8
	ISIN:	US78392BAD91	USY8085FBJ85
	Sustainability-Linked Notes		
	CUSIP:	78392BAE7	Y8085FBK5
	ISIN:	US78392BAE74	USY8085FBK58
	Green Notes		
	CUSIP:	78392BAF4	Y8085FBL3
	ISIN:	US78392BAF40	USY8085FBL32
LEI	988400XAIK6XISWQV045		

SUMMARY FINANCIAL DATA

The following tables present summary financial and other information of the Company. The summary financial information as of December 31, 2021 and 2020 and for the years ended December 31, 2021 and 2020 are derived from the audited consolidated financial statements as of and for the years ended December 31, 2021 and 2020 ("Annual Financial Statements") of the Company included in this Offering Circular, which have been prepared in accordance with K-IFRS. The summary financial information presented as of September 30, 2022 and for the nine months ended September 30, 2022 and 2021 are derived from the unaudited condensed consolidated interim financial statements as of September 30, 2022 and for the three and nine months ended September 30, 2022 and 2021 ("Interim Financial Statements") of the Company included in this Offering Circular, which have been prepared in accordance with K-IFRS No. 1034 "*Interim Financial Reporting*."

The Company's results of operations for the nine months ended September 30, 2022 may not be indicative of its result of operations for any future interim period or for the full year 2022.

Consolidated Statements of Comprehensive Income Data

	For the Year Ended December 31,		For the Nine Months Ended September 30,	
	2020	2021	2021	2022
	(In billions of Won)			
Revenue	₩ 31,900	₩ 42,998	₩ 30,621	₩ 36,950
Cost of sales	21,090	24,046	17,722	21,325
Gross Profit	10,811	18,952	12,899	15,625
Selling and administrative expenses	5,798	6,542	4,708	6,917
Operating profit	5,013	12,410	8,191	8,708
Finance income	3,328	2,378	1,464	4,179
Finance expenses	1,980	1,470	1,080	4,616
Share of profit of equity-accounted investees	(36)	162	184	119
Other income	85	116	79	214
Other expenses	172	180	87	180
Profit before income tax	6,237	13,416	8,750	8,424
Income tax expense	1,478	3,800	2,454	2,462
Profit for the period	₩ 4,759	₩ 9,616	₩ 6,296	₩ 5,962

Consolidated Statements of Financial Position Data

	As of December 31, 2020	As of December 31, 2021	As of September 30, 2022
	(In billions of Won)		
Assets			
Current assets:			
Cash and cash equivalents	₩ 2,976	₩ 5,058	₩ 4,719
Short-term financial instruments	437	475	568
Short-term investment assets	1,536	3,140	1,925
Trade receivables, net	4,931	8,267	8,520
Inventories, net	6,136	8,917	14,665
Other current assets	555	1,014	1,500
Total current assets	₩ 16,571	₩ 26,870	₩ 31,897
Non-current assets:			
Investments in associates and joint ventures	₩ 1,166	₩ 1,410	₩ 1,552
Long-term investment assets	6,140	6,666	6,554
Loans and other receivables, net	76	340	356
Property, plant and equipment, net	41,231	53,034	60,404
Right-of-use assets, net	1,708	1,597	1,758
Intangible assets, net	3,400	5,065	5,508
Deferred tax assets	556	590	828
Other non-current assets	327	814	688
Total non-current assets	54,603	69,516	77,649
Total assets	₩ 71,174	₩ 96,386	₩ 109,546
Liabilities			
Current liabilities:			
Trade payables	₩ 1,046	₩ 1,359	₩ 2,476
Other payables	2,349	4,641	5,744
Other non-trade payables	1,367	2,278	2,563
Borrowings	3,114	2,881	5,430
Current tax liabilities	637	3,003	1,079
Lease liabilities	347	302	312
Other current liabilities	212	306	779
Total current liabilities	₩ 9,072	₩ 14,769	₩ 18,383
Non-current liabilities:			
Long-term other payables	₩ 272	₩ 2,699	₩ 3,314
Other non-trade payables	30	32	65
Borrowings	8,137	14,743	16,592
Deferred tax liabilities	267	628	755
Lease liabilities	1,296	1,224	1,492
Other financial liabilities	88	5	5
Other non-current liabilities	102	95	216
Total non-current liabilities	₩ 10,192	₩ 19,426	₩ 22,439
Total liabilities	₩ 19,265	₩ 34,195	₩ 40,823
Equity			
Equity attributable to owners of the parent company:			
Capital stock	₩ 3,658	₩ 3,658	₩ 3,658
Capital surplus	4,144	4,335	4,336
Other equity	(2,503)	(2,295)	(2,315)
Accumulated other comprehensive income (loss)	(405)	675	2,763
Retained earnings	46,996	55,784	60,233
	₩ 51,889	₩ 62,157	₩ 68,674
Non-controlling interests	₩ 21	₩ 34	₩ 49
Total equity	₩ 51,909	₩ 62,191	₩ 68,723
Total liabilities and equity	₩ 71,174	₩ 96,386	₩ 109,546

Other Financial Data

	For the Year Ended December 31,		For the Nine Months Ended September 30,	
	2020	2021	2021	2022
	(In billions of Won)			
Capital expenditures[1]	₩ 10,069	₩ 12,487	₩ 9,732	₩ 14,873
Net cash inflow from operating activities	12,315	19,798	14,023	13,596
Net cash outflow from investing activities	(11,840)	(22,392)	(15,720)	(14,576)
Net cash inflow from financing activities	252	4,492	1,318	103
Adjusted EBITDA[2]	14,785	23,069	16,053	19,168

(1) Capital expenditures represent cash outflows for acquisition of property, plant and equipment.

(2) "Adjusted EBITDA" for a given period is defined as operating profit for such period, excluding depreciation and others. Adjusted EBITDA is not a measure defined under K-IFRS and should not be construed as an alternative to operating profit, cash flows from operating activities or profit for the period; however, Adjusted EBITDA is a widely used financial indicator of a company's ability to incur and service debt. Adjusted EBITDA should not be considered in isolation or construed as an alternative to cash flows, profit for the period or any other measure of performance or as an indicator of the Company's operating performance, liquidity, profitability or cash flows generated by operating, investing or financing activities. Adjusted EBITDA is presented herein because the Company believes Adjusted EBITDA is a useful supplement to cash flows data as a measure of its performance and its ability to generate cash flows from operations to cover debt service and taxes. The Company's Adjusted EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. Investors should not compare the Company's Adjusted EBITDA to the Adjusted EBITDA presented by other companies because not all companies use the same definition of Adjusted EBITDA.

A reconciliation of the Company's operating profit to Adjusted EBITDA is as follows:

	For the Year Ended December 31,		For the Nine Months Ended September 30,	
	2020	2021	2021	2022
	(In billions of Won)			
Operating profit	₩ 5,013	₩ 12,410	₩ 8,191	₩ 8,708
Depreciation and others [1]	9,772	10,658	7,862	10,460
Adjusted EBITDA	₩ 14,785	₩ 23,069	₩ 16,053	₩ 19,168

(1) "Depreciation and others" consist of (i) depreciation of property, plant and equipment, (ii) depreciation of investment property, (iii) amortization and (iv) depreciation of right-of-use assets.

RISK FACTORS

An investment in the Notes is subject to numerous risks, including those listed below. Investors should carefully consider the following risks as well as the other information contained in this Offering Circular before purchasing the Notes. These risks could materially affect the Company's ability to meet its obligations under the Notes. In such case, investors may lose all or part of their investment in, and the expected return on, the Notes.

Risks Relating to the Company

The memory semiconductor industry is subject to cyclical fluctuations, including recurring periods of oversupply, which may result in volatility in the Company's operating results.

The Company's DRAM products accounted for 71.2% of its total sales in 2021 and 63.9% in the first nine months of 2022, and the Company's NAND flash memory products accounted for 24.5% of its total sales in 2021 and 32.0% in the first nine months of 2022. Accordingly, the Company's business is affected by market conditions in the highly cyclical memory semiconductor industry. The industry's cyclicality results primarily from fluctuations in demand for the end products that use memory semiconductors, particularly from the information and technology industry and the consumer electronics industry, which are sensitive to general conditions in the global economy. Uncertainties in the global economy have increased in recent years, with global financial and capital markets experiencing substantial volatility. In particular, the ongoing pandemic of a new strain of coronavirus ("COVID-19") that began in late 2019, and more recently, rapid increases in interest rates globally to combat inflation, have materially and adversely affected the global economy and financial markets. See "– The ongoing global COVID-19 pandemic and any possible recurrence of other types of widespread infectious diseases could materially adversely affect the Company's business, results of operations or financial condition." Such uncertainties have been caused by, and continue to be exacerbated by, among other things, deterioration in economic and trade relations between major economies (particularly between the United States and China), the invasion of Ukraine by Russia in February 2022 that has destabilized the global energy sector, the slowdown of economic growth in China and other major emerging market economies, adverse economic and political conditions in Europe and Latin America and continuing geopolitical and social instability in North Korea and various parts of the Middle East. Any future deterioration in global economic conditions may result in a decline in demand for the Company's memory semiconductors.

The long lead times for new facilities to become operational have in some cases resulted in significant increases in the industry's production capacity coinciding with weakening demand, resulting in global oversupply of products and declining prices. Demand growth expectations in the end markets that use memory semiconductors have typically been accompanied by increased capital investment by manufacturers. In addition, semiconductor manufacturers worldwide have migrated to finer line-width process and advanced stacking technologies, which have increased the number of bits produced per wafer. These capital investments and adoption of new technologies may result in increases in the supply of memory semiconductors that are not matched by commensurate growth in demand in the end markets for such products. From time to time, the memory semiconductor industry has experienced significant and sometimes prolonged periods of oversupply and weak prices.

As a result of such fluctuations in global demand as well as in the manufacturing capacity available to produce memory semiconductors, the Company's results of operations may be volatile from period to period. Following a period of strong global demand for memory semiconductors in 2020, 2021 and the first half of 2022, the global prices of memory products meaningfully decreased starting in the third quarter of 2022, reflecting weakening demand and a general oversupply in the market, which in turn negatively impacted the Company's results of operations. The Company's revenue increased by 38.0% from ₩18,816 billion in the first half of

2021 to ₩25,967 billion in the first half of 2022, and its profit for the period increased by 63.0% from ₩2,981 billion in the first half of 2021 to ₩4,860 billion in the first half of 2022. However, the Company's revenue decreased by 7.0% from ₩11,805 billion in the third quarter of 2021 to ₩10,983 billion in the third quarter of 2022, and its profit for the period decreased by 66.7% from ₩3,315 billion in the third quarter of 2021 to ₩1,103 billion in the third quarter of 2022. In the fourth quarter of 2022, the prices of memory products further decreased, reflecting weakening demand and a general oversupply in the market. The Company believes that the above-noted factors will continue to have a material adverse effect on its results of operations, and the Company expects to incur a significant operating loss in the fourth quarter of 2022.

An actual or anticipated deterioration in market conditions may result in a decline in demand for the Company's products that may have a negative impact on the prices at which they can be sold. In such a case, the Company will likely face pressure to reduce prices and may need to rationalize its production capacity and reduce fixed costs. In general, the Company's ability to significantly reduce expenditures for production facilities and research and development during an industry downturn is limited because of the need to maintain its competitive position. If the Company is unable to reduce its expenses sufficiently to offset reductions in prices and sales volume, the Company's margins will deteriorate and its business, financial condition and results of operations may be materially and adversely affected.

The memory semiconductor industry is highly competitive and the Company's failure to successfully compete would adversely affect its business.

The Company operates in an intensely competitive market, which has been characterized by erosion of selling prices, frequent product enhancements from changes in technology and relatively short product life cycles. During the past decade, the memory semiconductor industry has experienced consolidation as well as the formation of strategic alliances, such as a joint venture between Kioxia Holdings Corporation ("Kioxia" and formerly Toshiba Memory Corporation) and Western Digital Corporation ("Western Digital") targeting the NAND flash memory market. The Company's major competitors in the DRAM market include Samsung Electronics Co., Ltd. ("Samsung Electronics") and Micron Technology, Inc. ("Micron Technology"). The Company's major competitors in the NAND flash memory market include Samsung Electronics, Kioxia, Micron Technology and Western Digital.

The Company competes in its principal product lines based on the following factors:

- pricing;
- manufacturing costs, yields and product availability;
- product performance, quality and reliability;
- successful and timely development of new products and manufacturing processes;
- ability to deliver in large volumes on a timely basis and the ability to meet changes in the customers' demands;
- marketing and distribution capability;
- customer service, including technical support; and
- brand recognition and financial strength.

Entry into memory semiconductor manufacturing requires substantial capital expenditures and significant technological and manufacturing expertise. Although the Company believes that its existing investment, experience and technological expertise provide "time to market" and economies of scale advantages, the Company faces increasing competition from emerging companies that may significantly expand the scale of their operations, as well as from potential repositioning and expansion by storage solution companies and existing customers that develop memory solutions in-house. In addition, in recent years, various industrialized nations have taken measures to promote high-technology industries, which may intensify the competitive landscape of the semiconductor industry. For example, in August 2022, the U.S. Government enacted the CHIPS and Science Act of 2022, which provides federal aid to promote emerging industries in the United States, including strengthening its domestic semiconductor manufacturing capabilities. Such efforts may incentivize U.S. semiconductor companies to invest in the expansion of their production capabilities. As part of its efforts to promote a robust semiconductor supply chain, the U.S. Government also initiated the Chip 4 Alliance, a new U.S.-Asian semiconductor partnership among the United States, Korea, Japan and Taiwan. Such alliance may lead China and other nations to take measures to more actively develop their semiconductor manufacturing capabilities, which may further intensify competition in the global semiconductor industry.

Some of the Company's existing and new competitors may have greater financial, marketing, technical or other resources than the Company. Greater resources may allow such competitors to respond to changes in market demand more quickly and produce, market and distribute advanced products, as well as withstand downturns in the memory semiconductor markets in which the Company competes. There is no assurance that the Company will be able to continue to compete successfully, and its failure to do so could have a material adverse effect on its business, financial condition and results of operations.

The Company's future long-term growth depends to a significant extent on its ability to increase production capacity.

The Company's future long-term growth will be dependent on its ability to continue to expand its production capacity and total output beyond current levels. As part of the Company's efforts to reduce unit manufacturing costs, improve manufacturing yields and enhance its profitability, the Company periodically phases out the operations of its older fabs as well as upgrading them to new fabs that implement more advanced processing technologies. In addition to regular maintenance and enhancement of existing fabs, the Company began mass production operations of its M16 fab in Icheon, Korea starting in the first quarter of 2021. In December 2021, the Company also completed the first phase of its acquisition of the Dalian Manufacturing Facility from Intel. See "Business – Strategic Alliances, Investments and Acquisitions." In October 2022, the Company began construction of a new extension fab called M15X in Cheongju with targeted completion in early 2025. As part of its efforts to ensure its long-term competitiveness, the Company has also announced initiatives to construct an integrated industrial complex in Yongin, Korea for its next generation of fabs and research and development facilities.

The Company's ability to expand and successfully operate additional production facilities and increase output is subject to significant risks and uncertainties, including:

- its ability to secure adequate purchase orders from customers to maintain optimal production capacity;
- its ability to raise sufficient funds to build and operate new production facilities, including securing adequate working capital for labor costs and the purchase of raw materials and other supplies;

- delays and cost overruns associated with the build-out of additional facilities due to factors, many of which may be beyond the Company's control, such as delays in government approvals, problems with equipment vendors or raw material suppliers and equipment malfunctions and breakdowns; and

- diversion of significant management attention and other resources.

The Company's cash outflows for acquisition of property, plant and equipment amounted to ₩10,069 billion in 2020, ₩12,487 billion in 2021 and ₩14,873 billion in the first nine months of 2022. The Company currently expects its capital expenditures in 2022 to be within ₩20 trillion. In 2023, the Company plans to reduce its capital expenditures by at least half compared to 2022. The Company periodically adjusts its capital expenditure plans on an ongoing basis subject to market demand for the Company's products, the production outlook of the global memory semiconductor industry as well as global economic conditions in general. The Company may delay or not implement some of its announced capital expenditure plans based on its assessment of such market conditions. If the Company is unable to expand its production capacity and ramp up its operations within its anticipated timeframe and budgeted costs, the Company may not be able to meet customer demand and pursue additional economies of scale and growth, which could have a material adverse effect on the Company's business, financial condition and results of operations.

The ongoing global COVID-19 pandemic and any possible recurrence of other types of widespread infectious diseases could materially adversely affect the Company's business, results of operations or financial condition.

If severe health epidemics were to occur in any area where any of the Company's assets, suppliers or customers are located, the Company's business, results of operations or financial condition could be adversely affected. In particular, COVID-19, an infectious disease caused by severe acute respiratory syndrome coronavirus 2 that is known to have been first transmitted to humans in November 2019 and has spread globally, has materially and adversely affected the global economy and financial markets in recent months. The World Health Organization declared COVID-19 as a pandemic in March 2020. In light of Government recommendations for social distancing, the Company has periodically implemented remote work arrangements for a portion of its workforce, particularly for employees in areas severely impacted by the pandemic. In November 2020, the Company temporarily suspended for three days the operations of its assembly and testing facility in Chongqing, China in response to an occurrence of COVID-19 among its employees. While the Company does not believe that such arrangements have had a material adverse impact on its business, a prolonged outbreak of COVID-19 may result in further disruptions in the normal operations of the Company's business, including possible temporary plant closures, implementation of further work arrangements requiring employees to work remotely and restrictions on overseas and domestic business travel, which may lead to a reduction in labor productivity.

Other risks associated with a prolonged outbreak of COVID-19 or other types of widespread infectious diseases include:

- disruption in the normal operations of the Company's business resulting from contraction of COVID-19 by the Company's employees, which may necessitate its employees to be quarantined and/or its manufacturing facilities or offices to be temporarily shut down;

- depreciation of the Won against major foreign currencies, which in turn may increase the cost of imported raw materials, components and equipment;

- an increase in unemployment among, and/or decrease in disposable income of, consumers who purchase the products manufactured by the Company's customers and a decline in overall consumer confidence and spending levels, which in turn may decrease demand for the Company's products;

- disruption in the normal operations of the businesses of the Company's customers, which in turn may decrease demand for the Company's products;

- disruption in the supply of raw materials, components and equipment from the Company's vendors;

- disruption in the delivery of the Company's products to its customers;

- unstable global and Korean financial markets, which may adversely affect the Company's ability to meet its funding needs on a timely and cost-effective basis; and

- decreases in the fair value of the Company's investments in companies that may be adversely affected by the pandemic.

It is not possible to predict the duration or full magnitude of harm from COVID-19. In the event that COVID-19 or other types of widespread infectious diseases cannot be effectively and timely contained, the Company's business, financial condition and results of operations may be materially adversely affected.

The Company's revenue and profitability may decline if it is unable to obtain adequate supplies of raw materials and equipment in a timely manner and at reasonable prices.

The Company requires timely and adequate supplies of raw materials and equipment in order to manufacture its products. The Company sources most of its raw materials, including wafers, from suppliers in Korea, Japan and the United States. The Company is not dependent on any one supplier for a substantial portion of its raw material requirements for assembly and testing, and the Company believes that it generally has access to alternative sources of supply for its principal raw materials. However, from time to time, the Company and other semiconductor manufacturers have experienced shortages and increase in lead times for delivery of raw materials, which in turn have resulted in interruptions in production and delivery of products in the past. To minimize the potential for significant interruptions of supplies of principal raw materials, the Company has entered into multi-year supply agreements with its key material suppliers and plans to enter into similar agreements with other major suppliers, as well as diversify the geographic location of key international suppliers and increase sourcing from suppliers in Korea.

Like other memory semiconductor manufacturers, the Company also depends on a limited number of manufacturers in the Netherlands, the United States and Japan for its key equipment. The Company generally seeks to obtain testing equipment with similar functionality from various vendors. However, the Company's purchases of high-end equipment meeting the Company's standards are limited to several manufacturers. In periods of high market demand, the lead times from order to delivery of such equipment can be as long as six to twenty-four months. The Company seeks to manage this process through early reservation of appropriate delivery slots and constant communication with its equipment suppliers. However, unavailability of equipment, delays in delivery of key equipment or failure of equipment to meet the Company's specifications could delay implementation of the Company's expansion plans and impair its ability to timely deliver products to its customers.

It is possible that any of the Company's key supplier relationships could be interrupted or terminated due to events beyond the Company's control, including international supply disruptions caused by geopolitical issues, natural disasters or severe health pandemics such as COVID-19. For example, in October 2022, the Bureau of Industry and Security of the U.S. Department of Commerce (the "BIS") announced export controls to restrict China's ability to obtain advanced computing chips, develop and maintain supercomputers, and manufacture advanced semiconductors. As part of such measures, the BIS added certain semiconductor manufacturing equipment and related items to the Commerce Control List as well as new license requirements for items destined to semiconductor fabrication facilities in China that fabricate certain advanced semiconductors. In October 2022, the Company received permission from the BIS that enables the Company to supply its China-based manufacturing facilities with the equipment and items needed for one year without meeting additional licensing requirements. However, there can be no assurance that such permission will be granted by the BIS subsequent to the initial one-year waiver period.

There can be no assurance that the Company will be able to secure sufficient supplies of the relevant raw materials that meet its quality standards from alternative suppliers in a timely manner and at reasonable prices to satisfy its long-term needs. Furthermore, in the event that trade restrictions are imposed in the future by foreign governments in countries where the Company's key suppliers are located, the Company's failure to mitigate the impact of such restrictions could materially and adversely affect its operations. If the Company is unable to obtain adequate amounts of key raw materials and equipment that meet its quality standards in a timely manner and at a reasonable cost, the production of its products could be disrupted, which would negatively impact the Company's business, financial condition and results of operations.

The complexity of memory semiconductor production makes the Company highly susceptible to potential manufacturing issues.

Manufacturing memory semiconductors is a highly complex and precise process, requiring production in a tightly controlled, clean environment. Even very small impurities in raw materials, flaws in the wafer fabrication process, defects in the masks used to print circuits on a wafer or other factors can cause a substantial percentage of wafers to be rejected or numerous chips on each wafer to be nonfunctional. The Company may experience problems in achieving an acceptable yield rate in the manufacture of chips and memory module products, and the likelihood of facing such difficulties is higher in connection with the transition to new manufacturing methods. From time to time, the Company has experienced minor disruptions in its manufacturing process as a result of temporary power outages. The Company may also experience manufacturing problems in its assembly and test operations as a result of the introduction of new packaging materials. In addition, as technological advances in semiconductors become more rapid, manufacturing activities become more complex and prone to problems. Disruption of operations may also occur due to fire, flood or other natural disasters or calamities, human error, or acts of terrorism or war. Any interruption of wafer fabrication at any of the Company's facilities resulting in the failure to achieve acceptable manufacturing yields or inability to meet its customers' requirements would adversely affect the Company's business, financial condition and results of operations.

The Company's long-term profitability depends on its ability to respond to rapid technological changes in the manufacturing process in a timely and cost-effective manner.

The average selling prices of memory semiconductors have declined in general and are expected to continually decline with time irrespective of industry-wide cyclical fluctuations, as a result of, among other factors, technological advancements and cost reductions in the memory semiconductor manufacturing process. The Company may be able to take advantage of temporary higher selling prices typically associated with the launch of new products or the emergence of external factors that increase demand, but such prices will likely decline over time, and in certain cases, very rapidly. If the average per-bit selling price for DRAM and NAND flash memory products that the Company produces decreases faster than the pace at which the Company is able to reduce its per-bit manufacturing costs, the Company's gross margins would decrease. Accordingly, the Company's ability to respond to rapid technological changes in the manufacturing process and achieve higher manufacturing yields in a timely and cost-effective manner is critical to its long-term profitability.

Due to the competitive nature of the memory semiconductor market, manufacturers are continually seeking the most optimal production methods. For example, the Company is investing in enhancing its 3D NAND technology, which enables NAND flash memory cells to be stacked vertically in multiple layers, and is working toward transitioning its mass production of NAND flash memory products from utilizing 3D 96 and 128 layers to 3D 176 and 238 layers technology. If the Company does not anticipate enhancements in manufacturing technology and fails to adopt new process technologies in a timely and cost-effective manner, it may not be able to produce products that meet its customers' demands at competitive prices. Although new technologies typically yield more chips per wafer once ramp-up has been successfully completed, yields are typically low during the initial stage of transition where new technologies are applied to existing manufacturing process. There is no guarantee that the Company will not experience material delays in connection with future migrations to new technologies. If the Company is unable to respond to rapid technological changes in the manufacturing process in a timely and cost-effective manner, it may lose its market share, which in turn could have a material adverse effect on its business, financial condition and results of operations.

Requirements of the customers in the information and technology industry and the consumer electronics industry are continually and rapidly evolving, and the Company's success depends on its ability to anticipate and respond to these changes and trends.

Memory semiconductors are becoming increasingly diversified in terms of specifications, with customers demanding solutions that are optimized for their particular needs to manufacture specific electronic devices, including PCs, servers, graphic cards, mobile devices such as smartphones and tablets, and other consumer electronics products. The Company's continued success will depend on its ability to respond quickly to evolving customer requirements and industry standards in its target markets and to offer its customers a variety of products with reliable quality and advanced features.

If the Company's products do not keep pace with evolving industry standards, the Company could be required to invest significant resources to redesign its products to ensure compatibility with relevant standards. If the Company is slow to anticipate changing trends and respond to such changes in a timely manner, it could miss opportunities to capture potential customers, and it could lose its existing customers. In order for the Company to respond effectively to these and other market trends, it needs to dedicate significant resources to product design, research and development and marketing. There can be no assurance that the Company will have sufficient financial resources to fund all of the required research to develop technical innovations and meet changing industry standards. If the Company is unable to invest sufficient resources to satisfy the diversifying memory needs of its customers, or if it does so in an inefficient or untimely manner, it may lose its market share, which in turn could have a material adverse effect on its business, financial condition and results of operations.

The Company sells a substantial portion of its products to a select group of key customers in the United States and China, and any significant decrease in their order levels will negatively affect the Company's business.

A substantial portion of the Company's sales is attributable to a limited number of customers located in the United States and China. In 2021, two of the Company's customers each represented more than 10%, and in the aggregate 22.3%, of the Company's total revenue. In the first nine months of 2022, two of the Company's customers each represented more than 10%, and in the aggregate 22.5%, of the Company's total revenue. The Company cannot provide any assurance that its key customers will continue to place orders with the Company in the future at the same levels as in prior periods, or at all. The Company typically enters into mutually non-binding long-term supply agreements of one to three years with its customers, which usually do not establish fixed pricing and volume commitments. Key customers may reduce quantities purchased, delay or cancel purchase orders or elect to terminate their business relationship with the Company at any time for a number of reasons, including industry consolidation through mergers and acquisitions. Because much of the Company's costs and operating expenses are relatively fixed, termination of business relationships with key customers or significant reductions in sales to any key customers would have a material adverse effect on the Company's business, financial condition and results of operations.

In recent years, the Company has also continued to rely on sales to customers in China and the United States, and prolonged tensions in economic and trade relations between the two countries may have a material adverse effect on demand for the Company's products from key customers in such countries. Ongoing tensions between the United States and China and tariffs and other trade restrictions imposed by them on each other, including restrictions and penalties imposed by their respective governmental agencies such as the BIS, may lead to a decrease in the volume of products manufactured by the Company's key customers located in such countries, which in turn could decrease demand for the Company's memory semiconductors used as components in their products. In addition, the Company may be prohibited from selling products to certain of its key customers as a result of the ongoing trade tensions. For example, on August 20, 2020, the BIS published a final rule that further tightened restrictions under the Export Administration Regulations on Huawei Technology Co., Ltd. ("Huawei") and its affiliates designated on the Entity List administered by the BIS. Under the final rule, any item produced based on the relevant categories of U.S.-origin technology or software in any meaningful way may no longer be provided to Huawei for use by it or for use in any Huawei product without obtaining a license. Sales of any such items without obtaining the proper license would result in a violation of U.S. law. Starting on September 15, 2020, the Company has suspended sale of its products to Huawei and its affiliates designated on the Entity List administered by the BIS. Huawei had been one of the Company's key customers, and there can be no assurance that the Company will be able to obtain the required license from the BIS in order to resume sales of its products to Huawei or secure sufficient demand for the Company's products at comparable prices from its other customers, the failure of which may have a material adverse effect on the Company's business, financial condition and results of operations.

In addition, in August 2022, the U.S. Government enacted the CHIPS and Science Act of 2022, which provides federal aid to promote emerging industries in the U.S., including strengthening its domestic semiconductor manufacturing capabilities. Such efforts may incentivize U.S. semiconductor companies to invest in the expansion of their production capabilities, which in turn may reduce the Company's sales in the United States. As part of its efforts to promote a robust semiconductor supply chain, the U.S. Government also initiated the Chip 4 Alliance, a new U.S.-Asian semiconductor partnership among the United States, Korea, Japan and Taiwan. Such alliance may lead China and other nations to take measures to more actively develop their semiconductor manufacturing capabilities, which in turn may reduce the

Company's sales in such countries. See "– The memory semiconductor industry is highly competitive and the Company's failure to successfully compete would adversely affect its business."

Revenue of sales subsidiaries located in the United States accounted for 39.9% of the Company's revenue in 2021 and 52.1% in the first nine months of 2022, while revenue of sales subsidiaries located in China accounted for 36.6% of the Company's revenue in 2021 and 29.2% in the first nine months of 2022. The Company is unable to predict the duration of tensions in economic and trade relations between the two countries, and prolonged trade restrictions could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company may not be able to realize the anticipated benefits of its acquisitions, which could harm its business, financial condition and results of operations.

The Company's success will depend, in part, on its ability to expand its product offerings, and grow its business in response to changing technologies, consumer demands and competitive pressures. In some circumstances, the Company may determine to do so through the acquisition of complementary businesses and technologies rather than through internal development. For example, in October 2020, the Company agreed to acquire the NAND flash memory and storage business of Intel. In the first phase of such acquisition, the Company acquired Intel's NAND SSD business (including NAND SSD-related intellectual property and employees), as well as the Dalian Manufacturing Facility, for US$6.1 billion. The Company created a wholly-owned subsidiary in the United States called Solidigm to operate the acquired business. The Company paid an additional US$0.5 billion related to post-closing adjustments in the first nine months of 2022. In the second phase, the Company is expected to acquire the remaining assets, including the intellectual property related to the manufacture and design of NAND flash wafers, NAND flash wafers-related research and development employees and NAND flash wafers-related workforce at the Dalian Manufacturing Facility, for US$2.3 billion by March 2025. The second closing is subject to governmental approvals as well as other customary closing conditions and customary termination fees, which may be significant, if the transaction is terminated under certain specified circumstances. See "Business – Strategic Alliances, Investments and Acquisitions." The identification of suitable acquisition candidates can be difficult, time-consuming and costly, and the Company may not be able to successfully complete its identified acquisitions, including the pending second phase of the Intel NAND Business Acquisition. The Company has limited experience acquiring other businesses, and its ability to acquire and integrate other companies and assets, particularly large or complex companies, products or technologies, in a successful manner remains subject to uncertainty.

The risks the Company faces in connection with acquisitions also include:

- diversion of management time and focus from operating the Company's business to addressing acquisition and integration challenges;

- challenges associated with the integration of product development and sales and marketing functions of the acquired business;

- challenges associated with the retention of key employees from the acquired business;

- cultural and operational challenges associated with integrating employees from the acquired business into the Company;

- challenges associated with the integration of the acquired business's accounting, management information, human resources and other administrative systems;

- the need to implement or improve controls, procedures and policies at a business that prior to the acquisition may have lacked effective controls, procedures and policies;

- liability for activities of the acquired business before the acquisition, including intellectual property infringement claims;

- unanticipated impairment of goodwill; and

- litigation or other claims in connection with the acquired company, including claims from terminated employees, customers, former shareholders or other third parties.

The Company's failure to address these risks or other problems encountered in connection with its past or future acquisitions could cause it to fail to realize the anticipated benefits of these acquisitions, cause it to incur unanticipated liabilities, or could otherwise harm its business generally. Future acquisitions could also result in dilutive issuances of its equity securities or the incurrence of debt, contingent liabilities, amortization expenses or incremental operating expenses.

The Company's strategic alliances and investments may not be successful, which may adversely affect its competitive position and impair the Company's ability to achieve its business objectives.

The Company continually seeks out opportunities to further its strategic objectives, including by entering into joint ventures and joint product development and supply agreements, to further solidify its market position as a leading semiconductor company in the world. Cooperation in product design, manufacturing and sales and marketing between partner companies has increased in response to the growing diversity and complexity of memory semiconductors and applications, demand for technological enhancements and increasing costs associated with keeping pace with industry developments. The Company believes that such strategic initiatives will not only assist in maintaining and growing its presence in existing markets but also provide the Company with a cost-effective means of accessing new markets, products and technologies.

As part of the efforts to expand the Company's foundry business, the Company acquired Key Foundry in August 2022. From time to time, the Company has also acquired equity stakes in other industry players to further strengthen its business relationships and may do so again in the future. For example, in June 2018, the Company participated as a member of a consortium led by Bain Capital (the "Bain Consortium") in its purchase of a controlling stake in Kioxia from Toshiba Corporation. As a member of the Bain Consortium, the Company invested ₩2,637 billion for an indirect limited partnership interest in BCPE Pangea Cayman L.P. ("SPC 1"), which in turn holds an equity interest in Kioxia. In addition, the Company invested ₩1,279 billion to acquire a convertible bond issued by a second special purpose company, BCPE Pangea Cayman2 Limited ("SPC 2"), which is convertible into an approximately 15.0% equity interest in SPC 2 upon the occurrence of certain specified events. SPC 2 in turn holds an equity interest in Kioxia. As of September 30, 2022, the book value of the Company's investment in SPC 1 was ₩3,704 billion, and the book value of the Company's investment in the convertible bond issued by SPC 2 was ₩2,430 billion, which are accounted for as debt investments and classified as financial assets measured at fair value through profit or loss.

Strategic initiatives involve a number of risks, including potential disagreements with strategic partners, diversion of management attention and, in the case of joint ventures, cultural and operational challenges associated with operation of the joint venture. The Company's strategic, joint venture or consortium partners may have economic or business interests that are inconsistent with those of the Company, take actions contrary to agreed policies or objectives, undergo a change of control, experience financial and other difficulties or be unable or unwilling to fulfill their obligations. The Company's failure to address such risks or other problems encountered in connection with its past or future investments could cause the Company to fail to realize the anticipated benefits of such investments, cause the Company to incur unanticipated liabilities, or could otherwise harm the Company's business relationships and reputation. In addition, the Company's investments may become subject to unanticipated impairment losses (or losses for financial assets measured at fair value through profit or loss) if the value of the invested assets declines. Any such developments could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company may not be able to successfully execute its diversification strategy.

As part of its overall strategy, the Company has been striving to diversify its business to areas other than DRAM and NAND flash memory semiconductors in recent years. The Company has expanded its product portfolio into non-memory semiconductors, including CMOS image sensors that are used to perform the role of electronic film in digital photographing devices such as smartphones, tablets, PC laptops and surveillance cameras, as well as engaging in the foundry business through SK hynix system ic, a wholly-owned subsidiary, and Key Foundry, a wholly-owned subsidiary acquired by the Company in August 2022. The success of the Company's diversification strategy will depend, in part, on its ability to realize on the growth opportunities and anticipated synergies among its diversified businesses, which in turn will be subject to numerous factors, including the recruitment of qualified personnel and establishment of new business relationships, as well as expansion of existing relationships with various customers and suppliers, procurement of necessary technology and know-how and access to investment capital at a reasonable cost. The Company's failure to successfully execute its diversification strategy may adversely affect its business, financial condition and results of operations.

The Company may be unable to adequately protect its intellectual property rights or successfully defend against third-party infringement claims, which could impair the Company's operations and competitiveness and harm its business and future prospects.

Protection of the Company's intellectual property rights is essential to keep others from copying the innovations that are central to the Company's current and future products. As of September 30, 2022, the Company and three of its subsidiaries (SK hynix memory solutions America Inc., SK hynix system ic and Solidigm) owned 3,278 patents and 88 trademarks in Korea and 14,964 patents and 205 trademarks outside Korea. As of the same date, the Company and its three subsidiaries had 11,589 patent and trademark applications pending in Korea and abroad. The Company's ability to compete successfully also depends on its ability to operate without infringing the proprietary rights of others. The memory semiconductor industry is characterized by frequent disputes and litigation regarding patent and other intellectual property rights. As is typical in the industry, the Company has from time to time received communications from third parties asserting their patents against its products and alleging the Company's infringement of their intellectual property rights. The Company expects to receive similar communications in the future. For a discussion of the Company's patent infringement claims and litigation matters, see "Business – Litigation and Regulatory Proceedings."

In the event that any third party is adjudicated to have a valid intellectual property claim against the Company, the Company may be required to:

- refrain from selling the affected products in certain markets;
- make royalty payments or pay significant monetary damages, which may exceed the Company's reserves for such matters;

- seek to develop non-infringing technologies, which may be costly or time-consuming or may not be feasible; and

- seek to acquire licenses to the infringed technology, which may not be available on commercially reasonable terms, if at all.

Any of the foregoing, as well as the Company's inability to adequately protect its intellectual property rights, could have a material adverse effect on the Company's business, financial condition and results of operations.

The Company relies on technology provided by third parties, and its business may suffer if it is unable to renew its licensing arrangements with them.

The Company has entered into technology license and cross-license agreements with third parties that give those parties the right to use patents and other technologies developed by the Company, as well as provide the Company with the right to use patents and other technologies developed by them. The Company anticipates that it will continue to enter into various licensing and cross-licensing arrangements in the future, which may increase its payments of licensing fees and royalties. If the Company is unable to enter into or renew technology licensing arrangements on acceptable terms, it may lose the legal right to use certain of the technologies it employs in manufacturing its products, which may prevent the Company from manufacturing and selling key products. In addition, the Company could be disadvantaged if its competitors obtain licenses for important technologies on more favorable terms than the Company. In the future, the Company may also need to obtain additional licenses for new or existing technologies. The Company's failure to secure or renew license agreements on acceptable terms may materially and adversely affect its business, financial condition and results of operations.

Products that do not meet customer specifications, contain or are perceived to contain defects or are otherwise incompatible with their intended uses could impose significant costs on the Company.

The design and production processes for the Company's products, including DRAM, are highly complex. The Company may produce products that do not meet customer specifications, contain or are perceived to contain defects or are otherwise incompatible with their intended uses. Under the Company's general terms and conditions of sale and in accordance with industry practice, the Company provides a one-year warranty that is usually limited to repair or replacement of defective items or return of, or a credit with respect to, amounts paid for such items. From time to time, the Company may provide more extensive warranty coverage to certain customers. The Company may incur substantial costs in remedying defects in its products, which could include material inventory write-downs. Moreover, if actual or perceived problems with nonconforming, defective or incompatible products occur after the Company has shipped its products, the Company may not only have liability for providing replacements or otherwise compensating customers but also suffer damage to its relationship with important customers or to its reputation, which could have a material adverse effect on the Company's business, financial condition and results of operations.

Sanctions against the Company and other memory semiconductor producers for anti-competitive practices may have a direct or indirect material adverse impact on the Company's operations.

From time to time, the Company may become subject to investigations by government authorities as well as legal proceedings related to alleged involvement in anti-competitive practices. In the past, the Company and other DRAM manufacturers have been investigated by the Antitrust Division of the U.S. Department of Justice, and a number of class action lawsuits have been filed against the Company and other DRAM manufacturers in various federal district courts and state courts alleging violation of U.S. antitrust laws, unfair competition laws and other related laws. Generally, such class action cases are filed on behalf of classes of individuals and entities which purchased DRAM directly or indirectly from the various DRAM suppliers. The "indirect purchaser" plaintiffs include purchasers of consumer products, such as computers, in which DRAM is a component, and other purchasers that did not purchase DRAM directly from a DRAM manufacturer.

The Company has resolved a number of the class action lawsuits and other legal proceedings related to its alleged involvement in anti-competitive practices. For a discussion of recent proceedings, see "Business – Litigation and Regulatory Proceedings." The Company intends to vigorously defend against such claims. However, the Company is unable to predict the outcome of such investigations and legal proceedings. An adverse final resolution of any of the matters described above or any sanctions imposed against the Company for anti-competitive practices could result in liability to the Company, damage to its reputation, loss of experienced personnel or other consequences, any of which may have a material adverse effect on the Company's business, financial condition and results of operations.

Impositions of anti-dumping duties, safeguard duties, countervailing duties, quotas or tariffs may have an adverse impact on the Company's export sales.

The Company sells substantially all of its products outside Korea, and it currently is not subject to anti-dumping duties, safeguard duties, countervailing duties, quotas or tariffs in any market. However, as a producer with global sales and operations, the Company may become involved from time to time in trade remedy proceedings in one or more of its markets worldwide. The Company proactively plans for and responds to such proceedings to minimize any adverse effects and associated risks. The Company continues to carefully monitor developments with respect to trade remedy policies in all major markets in which the Company sells its products and, where necessary, vigorously defends its rights through litigation before tribunals such as the U.S. Court of International Trade. However, there can be no assurance that anti-dumping duties, safeguard duties, countervailing duties, quotas or tariffs will not be imposed on the Company's sales of products abroad in the future, and the imposition of any such measures against the Company may have a material adverse impact on its business and performance.

The Company may be unable to operate its business successfully if it is unable to retain and recruit qualified personnel.

The Company's success depends to a significant extent on the continued services of its senior management and research and development, engineering and other specialized personnel, and on its ability to continue to attract, retain and motivate such key employees. Generally, the Company's employees are not bound by employment or non-competition agreements and competition within the memory semiconductor industry for highly qualified employees is intense. There can be no assurance that the Company will not experience difficulty in recruiting and retaining qualified employees. The Company's business could suffer if it loses the services of any of its key personnel and cannot adequately replace them in a timely manner.

The Company is subject to strict environmental regulations, and it may become subject to penalties or restrictions that could cause its operations to be interrupted or result in significant compliance expenses.

The Company has manufacturing facilities in Korea and China. The Company's operations involve the use of chemicals and generate chemical waste, wastewater and other industrial waste at various stages in the manufacturing process, and the Company is subject to a variety of laws and regulations of local or national governments relating to the use, storage, discharge and disposal of such chemical by-products and waste substances. The Company is also subject to restrictions on using certain raw materials in its manufacturing process in fabs located in certain locations. The Company has installed various types of anti-pollution equipment, consistent with industry standards, for the treatment of chemical waste and equipment for the recycling of treated water and other industrial waste at its various facilities. However, the Company cannot provide assurance that environmental claims will not be brought against it or that local or national governments will not take steps toward adopting more stringent environmental standards. Any failure on the Company's part to comply with any present or future environmental regulations could result in the assessment of damages or clean-up costs or the imposition of fines or other penalties against it, a suspension of production, cessation of operations or relocation of manufacturing facilities to different locations. In addition, new environmental regulations could require the Company to acquire costly equipment or to incur other significant compliance expenses that may materially and negatively affect its business, financial condition and results of operations.

Fluctuations in exchange rates may result in foreign exchange losses.

There has been considerable volatility in exchange rates in recent years, including exchange rates between the Won and the U.S. dollar. To the extent that the Company incurs costs in one currency and makes sales in another, its profit margins may be affected by changes in the exchange rates between the two currencies. In particular, the Company's investments in manufacturing facilities in China have increased the proportion of its expenses that are incurred in RMB, while the Company's sales in China are denominated in U.S. dollars. Accordingly, an unhedged increase in the value of the RMB would increase the Company's construction and manufacturing costs and adversely impact its profitability. Changes in exchange rates can also affect the Won value of sales proceeds and operating and non-operating costs that are denominated in foreign currencies. The Company is unable to increase the prices of its products to adjust fully for the negative effects of exchange rate movements because prices in the memory semiconductor industry are dictated by worldwide supply and demand. In addition, exchange rate fluctuations can affect the Won value of the Company's equity investments and monetary assets and liabilities denominated in foreign currencies. See "Exchange Rate Information."

Appreciation of the Won may materially and adversely affect the Company's results of operations because, among other things, it reduces the Won value of the Company's export sales, which are primarily denominated in U.S. dollars, as well as causing the Company's export products to be less competitive by raising their prices in U.S. dollar terms. On the other hand, the depreciation of the Won would create foreign exchange translation losses and increase the amount, in Won terms, of interest and principal of the Company's foreign currency-denominated debt, as well as increase in Won terms the cost of raw materials and equipment that the Company purchases from overseas sources. Under the Company's current operating and capital structure, appreciation of the Won generally has a net negative impact on the Company's operating income. Although the Company's general policy is to hedge against such currency risks, the Company cannot provide any assurance that it will be able to effectively manage such risks. Volatility in currency exchange rates may lead to losses, which could have a material adverse effect on the Company's financial condition and results of operations.

Related party transactions that the Company engages in are subject to scrutiny by the Korea Fair Trade Commission and the Korean tax authorities.

The Company's business relationships and transactions with its subsidiaries and affiliates are subject to ongoing scrutiny by the Korea Fair Trade Commission as to, among other things, whether such relationships and transactions constitute undue financial support among companies of the same business group. The Company engages in various transactions with its subsidiaries and affiliates on an arm's-length basis. See "Certain Relationships and Related Party Transactions." The Company is also subject to fair trade regulations limiting guarantees of debt and cross-shareholdings among member companies of the SK Group. In addition, the Company's material business transactions with its subsidiaries, affiliates and member companies of the SK Group are subject to approval by its board of directors pursuant to the Korean Commercial Code and the Monopoly Regulation and Fair Trade Act and are subject to public disclosure requirements under the Monopoly Regulation and Fair Trade Act. Any future determinations by the Korea Fair Trade Commission that the Company has engaged in transactions that violate applicable fair trade laws and regulations may result in fines or other punitive measures and may have a material adverse effect on the Company's reputation and its business.

In addition, under Korean tax law, there is an inherent risk that the Company's transactions with its subsidiaries, affiliates or any other person or company that is related to the Company may be challenged by the Korean tax authorities if such transactions are viewed as having been made on terms that were not on an arm's-length basis. If the Korean tax authorities determine that any of the Company's transactions with related parties was not on an arm's-length basis, the Company would not be permitted to deduct the amount equivalent to such undue financial support as expenses, which may have adverse tax consequences for the Company.

Risks Relating to Korea

If economic conditions in Korea deteriorate, the Company's current business and future growth could be materially and adversely affected.

The Company is incorporated in Korea and a significant portion of its assets are located in Korea. As a result, the Company is subject to political, economic, legal and regulatory risks specific to Korea, and the Company's performance and successful execution of its operational strategies are dependent on the overall Korean economy. The economic indicators in Korea in recent years have shown mixed signs of growth and uncertainty, and future growth of the Korean economy is subject to many factors beyond the Company's control, including developments in the global economy.

In recent years, adverse conditions and volatility in the worldwide financial markets, fluctuations in oil and commodity prices, supply chain disruptions and the increasing weakness of the global economy, in particular due to the COVID-19 pandemic, have contributed to the uncertainty of global economic prospects in general and have adversely affected, and may continue to adversely affect, the Korean economy. The value of the Won relative to major foreign currencies has fluctuated significantly and, as a result of uncertain global and Korean economic conditions, there has been significant volatility in the stock prices of Korean companies recently. Future declines in the Korea Composite Stock Price Index, and large amounts of sales of Korean securities by foreign investors and subsequent repatriation of the proceeds of such sales may adversely affect the value of the Won, the foreign currency reserves held by financial institutions in Korea, and the ability of Korean companies to raise capital. Any future deterioration of the Korean economy could adversely affect the Company's business, financial condition and results of operations and the market price of the Notes.

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

- declines in consumer confidence and a slowdown in consumer spending, including as a result of the global COVID-19 pandemic;

- hostilities or, political or social tensions involving Russia (including the invasion of Ukraine by Russia and ensuing actions that the United States and other countries have taken and may take in the future) and any resulting adverse effects on the global supply of oil and other natural resources or the global financial markets;

- adverse conditions or developments in the economies of countries and regions that are important export markets for Korea, such as China, the United States, Europe and Japan, or in emerging market economies in Asia or elsewhere, including as a result of the deteriorating economic and trade relations between the United States and China and increased uncertainties resulting from the United Kingdom's exit from the European Union;

- adverse changes or volatility in foreign currency reserve levels, inflation rates, interest rates, commodity prices (including oil prices), exchange rates (including fluctuation of the U.S. dollar, the Euro or the Japanese Yen exchange rates or revaluation of the Chinese Renminbi) or stock markets;

- the occurrence of severe health epidemics in Korea or other parts of the world, such as the COVID-19 pandemic;

- deterioration in economic or diplomatic relations between Korea and its trading partners or allies, including deterioration resulting from territorial or trade disputes or disagreements in foreign policy;

- increased sovereign default risk in select countries and the resulting adverse effects on the global financial markets;

- deterioration in the financial condition or performance of small- and medium-sized enterprises and other companies in Korea due to the Government's policies to increase minimum wages and limit working hours of employees;

- investigations of large Korean business groups and their senior management for possible misconduct;

- a continuing rise in the level of household debt and increasing delinquencies and credit defaults by retail and small- and medium-sized enterprise borrowers in Korea;

- the economic impact of any pending or future free trade agreements or of any changes to existing free trade agreements;

- social and labor unrest;

- substantial changes in the market prices of Korean real estate;

- a substantial decrease in tax revenues and a substantial increase in the Government's expenditures for fiscal stimulus measures, unemployment compensation and other economic and social programs, in particular in light of the Government's ongoing efforts to provide emergency relief payments to households and emergency loans to corporations in need of funding in light of COVID-19, which, together, would likely lead to a national budget deficit as well as an increase in the Government's debt;

- financial problems or lack of progress in the restructuring of Korean business groups, other large, troubled companies, their suppliers or the financial sector;

- loss of investor confidence arising from corporate accounting irregularities or corporate governance issues concerning certain Korean companies;

- increases in social expenditures to support an aging population in Korea or decreases in economic productivity due to the declining population size in Korea;

- geopolitical uncertainty and the risk of further attacks by terrorist groups around the world;

- political uncertainty or increasing strife among or within political parties in Korea;
- hostilities or political or social tensions involving oil-producing countries in the Middle East (including a potential escalation of hostilities between the United States and Iran) and Northern Africa and any material disruption in the global supply of oil or sudden increase in the price of oil;
- natural or man-made disasters that have a significant adverse economic or other impact on Korea or its major trading partners; and
- an increase in the level of tensions or an outbreak of hostilities between North Korea and Korea or the United States.

Escalations in tensions between Korea and North Korea could have an adverse effect on the Company.

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

- North Korea renounced its obligations under the Nuclear Non-Proliferation Treaty in January 2003 and conducted six rounds of nuclear tests since October 2006, including claimed detonations of hydrogen bombs, which are more powerful than plutonium bombs, and warheads that can be mounted on ballistic missiles. Over the years, North Korea has also conducted a series of ballistic missile tests, including missiles launched from submarines and intercontinental ballistic missiles that it claims can reach the United States mainland. North Korea has increased the frequency of its missile tests in 2022, firing over 60 ballistic missiles, including 8 intercontinental ballistic missiles. In response, the Government has repeatedly condemned the provocations and flagrant violations of relevant United Nations Security Council resolutions. In February 2016, the Government also closed the inter-Korea Gaesong Industrial Complex in response to North Korea's fourth nuclear test in January 2016. Internationally, the United Nations Security Council has passed a series of resolutions condemning North Korea's actions and significantly expanding the scope of sanctions applicable to North Korea. Over the years, the United States and the European Union have also expanded their sanctions applicable to North Korea.
- In March 2010, a Korean naval vessel was destroyed by an underwater explosion, killing many of the crewmen on board. The Government formally accused North Korea of causing the sinking, while North Korea denied responsibility. Moreover, in November 2010, North Korea fired more than one hundred artillery shells that hit Korea's Yeonpyeong Island near the Northern Limit Line, which acts as the de facto maritime boundary between Korea and North Korea on the west coast of the Korean peninsula, causing casualties and significant property damage. The Government condemned North Korea for the attack and vowed stern retaliation should there be further provocation.

North Korea's economy also faces severe challenges, which may further aggravate social and political pressures within North Korea.

Although bilateral summit meetings were held between Korea and North Korea in April, May and September 2018 and between the United States and North Korea in June 2018, February 2019 and June 2019, there can be no assurance that the level of tensions affecting the Korean peninsula will not escalate in the future. Any increase in tensions, which may occur, for example, if North Korea experiences a leadership crisis, high-level contacts between Korea or the United States and North Korea break down or further military hostilities occur, could have a material adverse effect on the Korean economy and on the Company's business, financial condition and results of operations.

There are special risks involved with investing in securities of Korean companies.

As the Company is a Korean company and operates in a business and cultural environment that is different from that of other countries, there are risks associated with investing in its securities that are not typical for investments in securities of companies in other jurisdictions.

Under the Foreign Exchange Transaction Act of Korea and the Presidential Decree and regulations under that Act and Decree (collectively referred to as the "Foreign Exchange Transaction Laws"), if the Government deems that certain emergency circumstances, including sudden fluctuations in interest rates or exchange rates, extreme difficulty in stabilizing the balance of payments or substantial disturbance in the Korean financial and capital markets, are likely to occur, it may impose any necessary restriction such as requiring Korean or foreign investors to obtain prior approval from the Minister of Economy and Finance for the acquisition of Korean securities or for the repatriation of interest, dividends or sales proceeds arising from Korean securities or other types of capital transactions. Moreover, if the Government deems it necessary on account of war, armed conflict, natural disaster or grave and sudden changes in domestic or foreign economic circumstances or similar events or circumstances, the Minister of Economy and Finance may temporarily suspend performance under any or all foreign exchange transactions, in whole or in part, to which the Foreign Exchange Transaction Laws apply (including suspension of payment and receipt of foreign exchange) or impose an obligation to deposit or sell any means of payment to the Bank of Korea, the Foreign Exchange Equalization Fund of Korea, or certain other governmental agencies or financial institutions.

In addition, the Company's audited and unaudited condensed consolidated financial statements included in this Offering Circular are presented in accordance with K-IFRS and its future financial statements will be prepared in accordance with K-IFRS, which differ in certain respects from accounting principles applicable to companies in certain other countries. In making an investment decision, investors must rely upon their own examination of the Company, the terms of the offering and the financial and other information contained in this Offering Circular.

Risks Relating to the Notes

The Notes are unsecured obligations.

Because the Notes are unsecured obligations, their repayment may be compromised if:

- the Company enters into bankruptcy, liquidation, reorganization or other winding-up proceedings;

- there is a default in payment under the Company's future secured indebtedness or other unsecured indebtedness; or

- there is an acceleration of any of the Company's indebtedness.

If any of these events occurs, the Company's assets may not be sufficient to pay amounts due on the Notes.

The Notes are subject to transfer restrictions.

The Notes 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 to QIBs in reliance on the exemption provided by Rule 144A, to certain persons in offshore transactions in reliance on Regulation S, or if available, pursuant to another exemption from, or in another transaction not subject to, the registration requirements of the Securities Act and, in each case, in accordance with applicable state securities laws. In addition, subject to the conditions set forth in the Fiscal Agency Agreement (as defined in "Terms and Conditions of the 2026 Notes and the Green Notes" and "Terms and Conditions of the Sustainability-Linked Notes"), a Note may be transferred only if the principal amount of Notes transferred is at least US$200,000. For a further discussion of the transfer restrictions applicable to the Notes, see "Terms and Conditions of the 2026 Notes and the Green Notes," "Terms and Conditions of the Sustainability-Linked Notes" and "Transfer Restrictions."

The Notes have limited liquidity.

The Notes constitute a new issue of securities for which there is no existing market. Application will be made to the SGX-ST for the listing and quotation of the Notes on the SGX-ST. The offer and sale of the Notes is not conditioned on obtaining a listing of the Notes on the SGX-ST or any other securities exchange. Although the Initial Purchasers have advised the Company that they currently intend to make a market in the Notes, they are not obligated to do so, and any market-making activity with respect to the Notes, if commenced, may be discontinued at any time without notice in their sole discretion.

No assurance can be given as to the liquidity of, or the development and continuation of an active trading market for, the Notes. If an active trading market for the Notes does not develop or is not maintained, the liquidity and market price of the Notes may be adversely affected. If an active trading market for the Notes were to develop, the Notes could trade at prices that may be higher or lower than the price at which the Notes are issued, depending on many factors, including:

- prevailing interest rates;
- the financial condition, results of operations and future prospects of the Company;
- the rate of exchange between the Won and the U.S. dollar;
- political and economic developments in and affecting Korea and other regions;
- the market conditions for similar securities; and
- the financial condition and operating performance of the global memory semiconductor sector.

The Notes are subject to prescription regulations in Korea.

Failure to exercise a right of action for more than a certain period of time may operate as a bar to exercise of such right. Under Korean laws, claims against the issuer in respect of the payment of principal of notes or bonds are prescribed upon the expiry of 10 years, and claims for payment of interest in respect of notes or bonds are prescribed upon the expiry of five years, in each case, from the relevant due date as adjusted by any acceleration or otherwise, in respect thereof. If the holders of the Notes fail to exercise his or her right of payment for more than the period set forth above, the Korean courts may not enforce a claim for payment for principal or interest in respect of the Notes.

The Notes contain limited restrictive covenants and will not restrict the Company's ability to make investments, incur unsecured indebtedness or pay dividends.

The Notes contain limited restrictive covenants and will not restrict the Company's ability to:

- invest in affiliates, associate or subsidiaries;
- repurchase common or preferred shares, make distributions or issue dividends;
- issue preferred securities or incur unsecured indebtedness; or
- make capital expenditures.

The Company taking such actions could adversely affect its ability to pay amounts due on the Notes.

Credit ratings are periodically assigned to the Company and the Notes.

The Company and its debt securities, including the Notes, are subject to periodic review by independent credit rating agencies. Accordingly, increases in the level of the Company's outstanding indebtedness, a deterioration in its operating performance or other events could cause the rating agencies to downgrade the Company's credit ratings generally and the ratings on the Notes, which could adversely impact the trading prices for, or the liquidity of, the Notes. Any such downgrade could also adversely affect the Company's cost of borrowing, limit its access to the capital markets or result in more restrictive covenants in future debt agreements.

The Notes are each expected to be rated Baa2 by Moody's and BBB- by S&P. The credit ratings assigned to the Notes are limited in scope, and may not reflect the potential impact of all risks that may affect the value of the Notes. Each agency's rating should be evaluated independently of any other agency's rating. A credit rating is not a recommendation to buy, sell or hold the Notes and may be subject to revision, suspension or withdrawal at any time by the assigning rating agency. There can be no assurance that these ratings will remain in effect for a given period or that these ratings will not be revised or withdrawn by the relevant rating agency if in its judgment circumstances in the future so warrant. The Company has no obligation to inform holders of the Notes of any such revision, suspension or withdrawal. A revision, suspension or withdrawal at any time of a rating assigned to the Notes may adversely affect the market price of the Notes.

The Sustainability-Linked Notes may not be a suitable investment for all investors seeking exposure to assets with sustainability characteristics.

In December 2022, the Company adopted the Sustainability-Linked Financing Framework to link a part of its funding exercise with key sustainability objectives that are material to its long-term environmental, social and governance ("ESG") strategy and sustainability performance. The Sustainability-Linked Notes will be issued as sustainability-linked notes under the Sustainability-Linked Financing Framework, which is in alignment with the Sustainability-Linked Bond Principles 2020 published by the International Capital Markets Association.

The rate of interest relating to the Sustainability-Linked Notes is subject to upward adjustment from the Coupon Reset Date in the event the Company fails to achieve the Sustainability Performance Target. The Sustainability-Linked Notes may not satisfy an investor's requirements or any future legal, quasi legal or other standards for investment in assets with sustainability characteristics. In particular, the Sustainability-Linked Notes are not being marketed as "green bonds," "social bonds" or "sustainability bonds" as the proceeds of the issue of the Sustainability-Linked Notes will be used for general corporate purposes, including repayment of outstanding borrowings and capital expenditures. The Company does not commit to (i) allocate the proceeds specifically to projects or business activities meeting sustainability criteria or (ii) be subject to any other limitations or requirements that may be associated with green bonds, social bonds or sustainability bonds in any particular market.

In addition, any interest rate adjustment in respect of the Sustainability-Linked Notes will depend on whether the Company achieves, or does not achieve, the Sustainability Performance Target, which may be inconsistent with or insufficient to satisfy an investor's requirements or expectations. Prospective investors in the Sustainability-Linked Notes should carefully consider the information contained in this Offering Circular and must determine for themselves the relevance of such information for the purpose of any investment in the Sustainability-Linked Notes, together with any other investigation such investor deems necessary.

The Company's Sustainability Performance Target has been tailored to its business, operations and capabilities, and it does not easily lend itself to benchmarking against similar sustainability performance targets, and the related performance, of other issuers. No assurance is or can be given to investors by the Company, the Initial Purchasers, any second party opinion provider or the External Verifier that the Sustainability-Linked Notes will meet any or all investor expectations regarding the Sustainability-Linked Notes or the Sustainability Performance Target qualifying as "green," "social," "sustainable" or "sustainability-linked" or that any adverse environmental, social and/or other impacts will not occur in connection with the achievement of the Sustainability Performance Target or the use of the proceeds from the offering of the Sustainability-Linked Notes. The Initial Purchasers have not undertaken, nor are responsible for, any assessment of the Sustainability Performance Target or monitoring the ability of the Company to meet the Sustainability Performance Target.

None of the Initial Purchasers, the second party opinion providers, the External Verifier nor the Company gives any assurance or representation as to the suitability or reliability for any purpose whatsoever of any opinion, report, certification or validation of any third party in connection with the offering of the Sustainability-Linked Notes or the Sustainability Performance Target to fulfill any green, social, sustainability, sustainability-linked and/or other criteria. Any such opinion, report or certification is not, nor shall it be deemed to be, incorporated in and/or form part of this Offering Circular.

The second party opinion providers and providers of similar opinions, certifications and validations are not currently subject to any specific regulatory or other regime or oversight. Any such opinion or certification is not, nor should be deemed to be, a recommendation by the Company, the Initial Purchasers, any second party opinion provider, the External Verifier or any other person to buy, sell or hold the Sustainability-Linked Notes. Noteholders have no recourse against the Company, any of the Initial Purchasers or the provider of any such opinion or certification for the contents of any such opinion or certification, which is only current as at the date it was initially issued. Prospective investors must determine for themselves the relevance of any such opinion, certification or validation and/or the information contained therein and/or the provider of such opinion, certification or validation for the purpose of any investment in the Sustainability-Linked Notes. Any withdrawal of any such opinion or certification or any such opinion, certification attesting that the Company is not complying in whole or in part with any matters for which such opinion, certification or validation is opining on or certifying on may have a material adverse effect on the value of the Notes and/or result in adverse consequences for certain investors with portfolio mandates to invest in securities to be used for a particular purpose.

Although the Company intends to meet the Sustainability Performance Target, there can be no assurance of the extent to which the Company will be successful in doing so, that the Company may decide not to continue with the Sustainability Performance Target or that any future investments it makes in furtherance of the Sustainability Performance Target will meet investor expectations or any binding or non-binding legal standards regarding sustainability performance, whether by any present or future applicable law or regulations or by its own by-laws or other governing rules or investment portfolio mandates, in particular with regard to any direct or indirect environmental, sustainability or social impact. Although if the Sustainability Performance Target is not met it will give rise to an upward adjustment of the rate of interest relating to the Sustainability-Linked Notes from the Coupon Reset Date as described in Condition 4.2 of "Terms and Conditions of the Sustainability-Linked Notes," it will not be an event of default under "Terms and Conditions of the Sustainability-Linked Notes" nor will the Company be required to repurchase or redeem any Sustainability-Linked Notes in such circumstances.

In addition, the Company's efforts in achieving the Sustainability Performance Target may become controversial or be criticized by activist groups or other stakeholders.

Achieving the Sustainability Performance Target or any similar sustainability performance targets will require the Company to expend significant resources, while not meeting any such targets would result in increased interest payments and could expose the Company to reputational risk.

Achieving the Sustainability Performance Target or any similar sustainability performance targets the Company may choose to include in future financings or other arrangements will require the Company to expend significant resources. In addition, if the Company does not achieve the Sustainability Performance Target or any such similar sustainability performance targets the Company may choose to include in any future financings, it would result in increased interest payments under the Sustainability-Linked Notes or, as the case may be, such other relevant financing arrangements, but could also harm the Company's reputation, the consequences of which could, in each case, have a material adverse effect on the Company's financial condition or results of operations.

The Green Notes may not be a suitable investment for all investors seeking exposure to "green" assets.

The Company will allocate an amount equivalent to the net proceeds from the issuance of the Green Notes to finance or refinance, in whole or in part, new or existing Eligible Projects (as defined in "Use of Proceeds") in accordance with the Green Financing Framework, which is in alignment with the Green Bond Principles 2018 published by the International Capital Markets Association. See "Use of Proceeds." The examples of Eligible Projects provided in "Use of Proceeds" are for illustrative purposes only and no assurance can be provided that disbursements for projects with these specific characteristics will be made by the Company during the term of the Green Notes. The Green Financing Framework is not incorporated into, and does not form a part of, this Offering Circular.

There is currently no market consensus on what precise attributes are required for a particular project or series of notes to be defined as "green," and therefore, no assurance can be provided to potential investors that selected Eligible Projects will continue to meet the relevant eligibility criteria or any present or future investor expectations or requirements regarding environmental performance or sustainability. Although the Eligible Projects are expected to be selected in accordance with the categories recognized under the Green Financing Framework and are expected to be developed in accordance with relevant legislation and standards, there can be no guarantee that the projects will deliver the environmental benefits as anticipated, or that adverse environmental impacts will not occur during the design, construction, commissioning or operation of any such projects. In addition, where any negative impacts are insufficiently mitigated, the projects may become controversial and may be criticized by activist groups or other stakeholders.

Vigeo Eiris, an external consultant, has been engaged to issue an opinion regarding the Green Financing Framework's alignment with the Green Bond Principles 2018 issued by the International Capital Markets Association (the "Green Bond Second Party Opinion"). The Green Bond Second Party Opinion may not reflect the potential impact of all risks related to the structure, market, additional risks discussed above and other factors that may affect the value of the Green Notes. The Green Bond Second Party Opinion is not a recommendation to buy, sell or hold securities and is only current as of the date that the Green Bond Second Party Opinion was initially issued and may be updated, suspended or withdrawn at any time. Currently, the providers of second party opinions and certifications are not subject to any regulatory regime or oversight. In addition, although the Company has agreed to certain reporting and use of proceeds obligations in connection with certain environmental criteria, its failure to comply with such obligations does not constitute a breach or an event of default under the Green Notes. A withdrawal of the Green Bond Second Party Opinion or any failure by the Company to use an amount equivalent to the net proceeds from the issuance of the Green Notes on Eligible Projects or to meet or continue to meet the investment requirements of certain environmentally-focused investors with respect to the Green Notes may affect the value of the Green Notes and may have consequences for certain investors with portfolio mandates to invest in "green" assets. The Green Bond Second Party Opinion is not incorporated into, and does not form a part of, this Offering Circular.

In the event that the Green Notes are included in any dedicated "green," "environmental," "sustainable" or other similarly-labelled index, no assurance is given by the Company or any other person that such listing or admission, or inclusion in such index, satisfies any present or future investor expectations or requirements as regards to any investment criteria or guidelines with which such investor or its investments are required to comply, whether by any present or future applicable laws or regulations or by its own constitutive documents or other governing rules or investment portfolio mandates. Each potential investor should carefully consider the factors described in the Green Financing Framework. None of the Company or the Initial Purchasers make any representation as to whether the Green Notes fulfill the relevant environmental criteria. Moreover, no assurance can be provided with respect to the suitability or reliability of the Green Bond Second Party Opinion or that the Green Notes will fulfill the criteria to qualify as "green" bonds. The Initial Purchasers have not undertaken, nor are they responsible for, any assessment of the eligibility of the projects within the definition of Eligible Projects or the monitoring of the use of proceeds from the offering of the Green Notes. Each potential purchaser of the Green Notes should determine for itself the relevance of the information contained in this Offering Circular regarding the use of proceeds and its purchase of the Green Notes should be based upon such investigation as it deems necessary.

Risks Relating to Forward-Looking Statements

This Offering Circular contains forward-looking statements. The Company cautions you not to rely on the forward-looking statements, which speak only as of the date of this Offering Circular.

In addition to the risks related to the Company's business discussed above, other factors could cause actual results to differ materially from those described in the various forward-looking statements contained in this Offering Circular, including the statements relating to the Company's capital expenditure plans and its use of proceeds from the offering. These factors include, but are not limited to, the following:

- general economic, business and political conditions;

- fluctuations in prices of raw materials;
- adverse trends in regulatory, legislative and judicial developments;
- changes in interest rates and currency exchange rates;
- trends in the global semiconductor industry;
- factors affecting future profitability;
- seasonality;
- the Company's leverage and its ability to meet its debt obligations; and
- conditions in the Korean and the global financial markets.

By their nature, certain disclosures relating to these and other risks are only estimates and should one or more of these uncertainties or risks materialize, actual results may vary materially from those estimated, anticipated or projected, as well as from historical results. Specifically but without limitation, revenues could decrease, costs (including capital costs) could increase, investments could be delayed and anticipated improvements in performance might not be fully realized.

The Company cautions you not to rely on the forward-looking statements, which speak only as of the date of this Offering Circular. Except as required by law, the Company is not under any obligation, and expressly disclaims any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise. All subsequent forward-looking statements attributable to the Company or any person acting on the Company's behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section.

USE OF PROCEEDS

The net proceeds from the sale of the 2026 Notes are estimated to be US$743,362,500, the net proceeds from the sale of the Sustainability-Linked Notes are estimated to be US$990,110,000 and the net proceeds from the sale of the Green Notes are estimated to be US$734,325,000, in each case, after deduction of underwriting commissions but not estimated offering expenses.

The net proceeds from the 2026 Notes and the Sustainability-Linked Notes will be used principally for general corporate purposes, including repayment of outstanding borrowings and capital expenditures.

The net proceeds from the Green Notes ("Green Bond Proceeds") will be allocated toward the financing or refinancing, in whole or in part, of new or existing projects related to (i) sustainable water and wastewater management, (ii) energy efficiency, (iii) pollution prevention and control and (iv) terrestrial and aquatic biodiversity conservation ("Eligible Projects") in accordance with the Green Financing Framework, which is in alignment with the Green Bond Principles 2018 published by the International Capital Markets Association. Under such principles published by the International Capital Markets Association, only the notes allocated exclusively to financing or refinancing "green eligible categories" may be designated as "green bonds."

Examples of Eligible Projects include the following:

- sustainable water and wastewater management: construction, installation, operation or maintenance of projects and assets that materially reduce the amount of water consumed or wasted and allow for greater water volumes to be efficiently treated, including regional waterworks, wastewater treatment facilities and plants, wastewater reduction trickling filters and cooling tower drain water recycling systems;

- energy efficiency: research, development, construction, installation, operation or maintenance of projects and assets that materially reduce the amount of energy consumed and improve energy efficiency, including light-emitting diode lighting for office and machine rooms, low-power SSDs, booster pumps in cooling tower pipes and heat exchange systems in cooling towers;

- pollution prevention and control: construction, installation, operation or maintenance of projects and assets that materially reduce emissions and waste created from the Company's operations, including environment analysis system, automatic water quality measurement equipment and nitrogen oxide reduction infrastructure; and

- terrestrial and aquatic biodiversity conservation: construction, installation, operation or maintenance of projects and assets that materially enhance the well-being of local terrestrial and aquatic biodiversity as well as aid in long-term conservation of such biodiversity, including the construction and ongoing maintenance of an ecological park and wetland.

Project Evaluation and Selection Process

Under the Company's project evaluation and selection process, Eligible Projects will be identified and assessed using the criteria indicated above by an internal ESG working group, which is composed of the Company's finance management organization, ESG-related departments and environment-related departments. The ESG working group will review and select potential Eligible Projects.

Management of Proceeds

The Green Bond Proceeds will be deposited into the Company's general funding accounts and will be earmarked for allocation to Eligible Projects. The allocation of the Green Bond Proceeds will be recorded and monitored by the Company's Green Financing Register. Any balance of the Green Bond Proceeds not yet allocated to Eligible Projects will be managed in accordance with the Company's treasury policy and may be invested in cash, cash equivalents or other liquid marketable instruments until allocation to Eligible Projects.

Reporting

The Company will publish a Green Financing Report within one year from the date of issuance of the Green Notes and annually thereafter until the Green Bond Proceeds have been fully allocated. Such reports will include allocation information, such as the amounts allocated to respective Eligible Projects, qualitative descriptions of such Eligible Projects and the remaining balance of unallocated proceeds. Impact reporting will be disclosed where practical and feasible and will include relevant impact metrics for the Eligible Projects.

Vigeo Eiris, an external consultant, has been engaged to issue a Green Bond Second Party Opinion. The Green Bond Second Party Opinion and the Green Financing Framework are publicly available on the following website: https://www.skhynix.com/ir/UI-FR-IR13. The Green Financing Framework and the Green Bond Second Party Opinion are not incorporated into, and do not form a part of, this Offering Circular.

EXCHANGE RATE INFORMATION

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

Period	At End of Period	Average Rate(1)	High	Low
	(Won per US$1.00)			
2018	₩ 1,118.1	₩ 1,100.3	₩ 1,142.5	₩ 1,057.6
2019	1,157.8	1,165.7	1,218.9	1,111.6
2020	1,088.0	1,180.1	1,280.1	1,082.7
2021	1,185.5	1,144.4	1,199.1	1,083.1
2022	1,267.3	1,292.0	1,436.6	1,185.5
July	1,304.0	1,307.4	1,323.7	1,294.2
August	1,347.5	1,318.4	1,347.7	1,298.6
September	1,434.8	1,391.6	1,436.5	1,345.1
October	1,419.3	1,426.7	1,436.6	1,404.2
November	1,331.5	1,364.1	1,422.4	1,320.3
December	1,267.3	1,293.7	1,320.4	1,267.3
2023 (through January 10)	1,246.8	1,266.8	1,274.7	1,246.8
January (through January 10)	1,246.8	1,266.8	1,274.7	1,246.8

Source: Seoul Money Brokerage Services, Ltd.

(1) The average rate for each period is calculated as the average of the Market Average Exchange Rates on each business day during the relevant period (or portion thereof).

CAPITALIZATION

The following table sets forth the Company's capitalization as of September 30, 2022 (1) as derived from the Interim Financial Statements included in this Offering Circular and (2) as adjusted to give effect to the issuance of the Notes offered hereby, after deducting the underwriting commission but not estimated offering expenses payable by the Company, and on the assumption that the proceeds from the issuance of the Notes will not be used for the immediate repayment of outstanding borrowings. For additional information, see "Summary Financial Data" and the Interim Financial Statements of the Company and the notes thereto included elsewhere in this Offering Circular.

	As of September 30, 2022	
	Actual	As Adjusted
	(in billions of Won)	
Long-term debt:		
Borrowings	₩ 16,592	₩ 16,592
Notes offered hereby(1)	–	3,541
Total long-term debt	16,592	20,133
Equity:		
Equity attributable to owners of the parent company		
Capital stock	3,658	3,658
Capital surplus	4,336	4,336
Other equity	(2,315)	(2,315)
Accumulated other comprehensive income	2,763	2,763
Retained earnings	60,233	60,233
Total equity attributable to owners of the parent company	68,674	68,674
Non-controlling interest	49	49
Total equity	68,723	68,723
Total capitalization	₩ 85,315	₩ 88,856

(1) Reflects net proceeds of US$2,467,797,500 from the offering (after deduction of underwriting commissions but not estimated offering expenses) translated into Won at ₩1,434.8 to US$1.00, the Market Average Exchange Rate in effect on September 30, 2022.

Except for the Company's incurrence of ₩372 billion of additional long-term borrowings (excluding ₩172 billion of current portion of long-term borrowings) in January 2023 and as described above, there has been no material change in the Company's total capitalization since September 30, 2022.

SELECTED FINANCIAL INFORMATION

The following tables present selected financial and other information of the Company. The selected financial information as of December 31, 2021 and 2020 and for the years ended December 31, 2021 and 2020 are derived from the Annual Financial Statements of the Company included in this Offering Circular, which have been prepared in accordance with K-IFRS. The selected financial information presented as of September 30, 2022 and for the nine months ended September 30, 2022 and 2021 are derived from the Interim Financial Statements of the Company included in this Offering Circular, which have been prepared in accordance with K-IFRS No. 1034 "*Interim Financial Reporting*."

The Company's results of operations for the nine months ended September 30, 2022 may not be indicative of its result of operations for any future interim period or for the full year 2022.

Consolidated Statements of Comprehensive Income Data

	For the Year Ended December 31,		For the Nine Months Ended September 30,	
	2020	2021	2021	2022
	(In billions of Won)			
Revenue	₩ 31,900	₩ 42,998	₩ 30,621	₩ 36,950
Cost of sales	21,090	24,046	17,722	21,325
Gross Profit	10,811	18,952	12,899	15,625
Selling and administrative expenses	5,798	6,542	4,708	6,917
Operating profit	5,013	12,410	8,191	8,708
Finance income	3,328	2,378	1,464	4,179
Finance expenses	1,980	1,470	1,080	4,616
Share of profit of equity-accounted investees	(36)	162	184	119
Other income	85	116	79	214
Other expenses	172	180	87	180
Profit before income tax	6,237	13,416	8,750	8,424
Income tax expense	1,478	3,800	2,454	2,462
Profit for the period	₩ 4,759	₩ 9,616	₩ 6,296	₩ 5,962

Consolidated Statements of Financial Position Data

	As of December 31, 2020	As of December 31, 2021	As of September 30, 2022
	(In billions of Won)		
Assets			
Current assets:			
Cash and cash equivalents	₩ 2,976	₩ 5,058	₩ 4,719
Short-term financial instruments	437	475	568
Short-term investment assets	1,536	3,140	1,925
Trade receivables, net	4,931	8,267	8,520
Inventories, net	6,136	8,917	14,665
Other current assets	555	1,014	1,500
Total current assets	₩ 16,571	₩ 26,870	₩ 31,897
Non-current assets:			
Investments in associates and joint ventures	₩ 1,166	₩ 1,410	₩ 1,552
Long-term investment assets	6,140	6,666	6,554
Loans and other receivables, net	76	340	356
Property, plant and equipment, net	41,231	53,034	60,404
Right-of-use assets, net	1,708	1,597	1,758
Intangible assets, net	3,400	5,065	5,508
Deferred tax assets	556	590	828
Other non-current assets	327	814	688
Total non-current assets	54,603	69,516	77,649
Total assets	₩ 71,174	₩ 96,386	₩ 109,546
Liabilities			
Current liabilities:			
Trade payables	₩ 1,046	₩ 1,359	₩ 2,476
Other payables	2,349	4,641	5,744
Other non-trade payables	1,367	2,278	2,563
Borrowings	3,114	2,881	5,430
Current tax liabilities	637	3,003	1,079
Lease liabilities	347	302	312
Other current liabilities	212	306	779
Total current liabilities	₩ 9,072	₩ 14,769	₩ 18,383
Non-current liabilities:			
Long-term other payables	₩ 272	₩ 2,699	₩ 3,314
Other non-trade payables	30	32	65
Borrowings	8,137	14,743	16,592
Deferred tax liabilities	267	628	755
Lease liabilities	1,296	1,224	1,492
Other financial liabilities	88	5	5
Other non-current liabilities	102	95	216
Total non-current liabilities	₩ 10,192	₩ 19,426	₩ 22,439
Total liabilities	₩ 19,265	₩ 34,195	₩ 40,823
Equity			
Equity attributable to owners of the parent company:			
Capital stock	₩ 3,658	₩ 3,658	₩ 3,658
Capital surplus	4,144	4,335	4,336
Other equity	(2,503)	(2,295)	(2,315)
Accumulated other comprehensive income (loss)	(405)	675	2,763
Retained earnings	46,996	55,784	60,233
	₩ 51,889	₩ 62,157	₩ 68,674
Non-controlling interests	₩ 21	₩ 34	₩ 49
Total equity	₩ 51,909	₩ 62,191	₩ 68,723
Total liabilities and equity	₩ 71,174	₩ 96,386	₩ 109,546

Other Financial Data

	For the Year Ended December 31,		For the Nine Months Ended September 30,	
	2020	2021	2021	2022
	(In billions of Won)			
Capital expenditures[1]	₩ 10,069	₩ 12,487	₩ 9,732	₩ 14,873
Net cash inflow from operating activities	12,315	19,798	14,023	13,596
Net cash outflow from investing activities	(11,840)	(22,392)	(15,720)	(14,576)
Net cash inflow from financing activities	252	4,492	1,318	103
Adjusted EBITDA[2]	14,785	23,069	16,053	19,168

(1) Capital expenditures represent cash outflows for acquisition of property, plant and equipment.

(2) "Adjusted EBITDA" for a given period is defined as operating profit for such period, excluding depreciation and others. Adjusted EBITDA is not a measure defined under K-IFRS and should not be construed as an alternative to operating profit, cash flows from operating activities or profit for the period; however, Adjusted EBITDA is a widely used financial indicator of a company's ability to incur and service debt. Adjusted EBITDA should not be considered in isolation or construed as an alternative to cash flows, profit for the period or any other measure of performance or as an indicator of the Company's operating performance, liquidity, profitability or cash flows generated by operating, investing or financing activities. Adjusted EBITDA is presented herein because the Company believes Adjusted EBITDA is a useful supplement to cash flows data as a measure of its performance and its ability to generate cash flows from operations to cover debt service and taxes. The Company's Adjusted EBITDA presented herein may not be comparable to similarly titled measures presented by other companies. Investors should not compare the Company's Adjusted EBITDA to the Adjusted EBITDA presented by other companies because not all companies use the same definition of Adjusted EBITDA.

A reconciliation of the Company's operating profit to Adjusted EBITDA is as follows:

	For the Year Ended December 31,		For the Nine Months Ended September 30,	
	2020	2021	2021	2022
	(In billions of Won)			
Operating profit	₩ 5,013	₩ 12,410	₩ 8,191	₩ 8,708
Depreciation and others [1]	9,772	10,658	7,862	10,460
Adjusted EBITDA	₩ 14,785	₩ 23,069	₩ 16,053	₩ 19,168

(1) "Depreciation and others" consist of (i) depreciation of property, plant and equipment, (ii) depreciation of investment property, (iii) amortization and (iv) depreciation of right-of-use assets.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with, and is qualified in its entirety by reference to, the Company's financial statements included elsewhere in this Offering Circular. The Company's financial information appearing below is derived from the Company's financial statements prepared in accordance with K-IFRS. K-IFRS differs in certain significant respects from generally accepted accounting principles in other countries, including the United States. The discussion contains forward-looking statements and reflects the Company's current view with respect to future events and financial performance. Actual results may differ materially from those anticipated in these forward-looking statements as a result of certain factors such as those set forth under "Risk Factors" and elsewhere in this Offering Circular.

Overview

The Company is one of the world's largest memory semiconductor companies and engages in the design, manufacture and sale of advanced memory semiconductors. The Company's memory products, consisting of both DRAM and NAND flash memory products, can be used in virtually all electronic devices, including PCs, servers, graphic cards, mobile devices such as smartphones and tablets, and other consumer electronics products. The Company's product portfolio also includes non-memory semiconductors, including CMOS image sensors that are used to perform the role of electronic film in digital photographing devices such as smartphones, tablets, PC laptops and surveillance cameras. The Company has also been engaging in the foundry business through SK hynix system ic, a wholly-owned subsidiary, and Key Foundry, a wholly-owned subsidiary acquired by the Company in August 2022.

The Company sells a wide variety of DRAM and NAND flash memory products with various configuration options, architectures and performance characteristics tailored to meet application- and customer-specific needs. The Company believes that it is one of the world's leading companies in developing DRAM with advanced specifications, particularly those relating to higher density, faster data-processing speed and lower power consumption. The Company is continually developing higher-density modules, SSDs and other customized DRAM and NAND flash memory products that are optimized for use in specific applications. The Company believes that offering customized products provides opportunities to mitigate the negative effects of the cyclicality of the memory products market, and its customized products typically command higher prices than commodity DRAM because of their superior performance and specifically tailored characteristics.

The Company owns and operates fabs in Icheon and Cheongju, Korea and Wuxi and Dalian, China. The Company also owns and operates assembly and testing facilities for back-end processing of its products in Icheon and Cheongju, Korea and Chongqing, China. As part of the Company's efforts to reduce unit manufacturing costs, improve manufacturing yields and enhance its profitability, the Company periodically phases out the operations of its older fabs as well as upgrading them to new fabs that implement more advanced processing technologies. In addition to regular maintenance and enhancement of existing fabs, the Company began mass production operations of its M16 fab in Icheon, Korea starting in the first quarter of 2021. In October 2022, the Company began construction of a new extension fab called M15X in Cheongju with targeted completion in early 2025. As part of its efforts to ensure its long-term competitiveness, the Company has also announced initiatives to construct an integrated industrial complex in Yongin, Korea for its next generation of fabs and research and development facilities.

In order to maintain its technological leadership, as well as to access new markets for its products, the Company engages in strategic initiatives, including entering into joint ventures and joint product development and supply agreements. From time to time, the Company may also acquire equity stakes in other industry players to further strengthen its business relationships as well as acquire complementary businesses that further strengthen the Company's leading position in the industry. In October 2020, the Company agreed to acquire the NAND flash memory and storage business of Intel. In the first phase of such acquisition, the Company acquired Intel's NAND SSD business (including NAND SSD-related intellectual property and employees), as well as the Dalian Manufacturing Facility, for US$6.1 billion. The Company created a wholly-owned subsidiary in the United States called Solidigm to operate the acquired business. The Company paid an additional US$0.5 billion related to post-closing adjustments in the first nine months of 2022. In the second phase, the Company is expected to acquire the remaining assets, including the intellectual property related to the manufacture and design of NAND flash wafers, NAND flash wafers-related research and development employees and NAND flash wafers-related workforce at the Dalian Manufacturing Facility, for US$2.3 billion by March 2025. The second closing is subject to governmental approvals as well as other customary closing conditions and customary termination fees, which may be significant, if the transaction is terminated under certain specified circumstances. See "Business – Strategic Alliances, Investments and Acquisitions."

Factors Affecting the Company's Results of Operations and Financial Condition

The results of operations and financial condition of the Company, including its operating profit and corresponding changes in its operating profit as a percentage of total revenue (or operating profit margin), have been and will continue to be materially affected by a number of factors and developments, some of which are outside of the Company's control, including:

- cyclical and volatile market conditions of the semiconductor industry;
- fluctuation in exchange rates of major foreign currencies;
- the level of, and returns on, the Company's capital expenditures and production capacity expansion;
- changes in the Company's product mix reflecting rapidly evolving customer preferences and advancements in technology;
- the level of, and returns on, the Company's investment in its research and development activities; and
- the Company's ability to pursue additional operational cost savings.

Cyclical and Volatile Market Conditions of the Semiconductor Industry

The Company's business is affected by market conditions in the highly cyclical memory semiconductor industry. The industry's cyclicality results primarily from fluctuations in demand for the end products that use memory semiconductors, particularly from the information and technology industry and the consumer electronics industry, which are sensitive to general conditions in the global economy. Uncertainties in the global economy have increased in recent years, with global financial and capital markets experiencing substantial volatility. In particular, the ongoing COVID-19 pandemic that began in late 2019, and more recently, rapid increases in interest rates globally to combat inflation, have materially and adversely affected the global economy and financial markets. See "Risk Factors – The ongoing global COVID-19 pandemic and any possible recurrence of other types of widespread infectious diseases could materially adversely affect the Company's business, results of operations or financial condition." Such uncertainties have been caused by, and continue to be exacerbated by, among other things, deterioration in economic and trade relations between major economies (particularly between the United States and China), the invasion of Ukraine by Russia in February 2022 that has destabilized the global energy sector, the slowdown of economic growth in China and other major emerging market economies, adverse economic and political conditions in Europe and Latin America and continuing geopolitical and social instability in North Korea and various parts of the Middle East. An actual or anticipated improvement or deterioration in economic conditions in any of the Company's major markets may affect customer confidence and spending, resulting in a corresponding fluctuation in consumption that may impact the level of demand for the Company's products and prices at which they can be sold.

The long lead times for new facilities to become operational have in some cases resulted in significant increases in the industry's production capacity coinciding with weakening demand, resulting in global oversupply of products and declining prices. Demand growth expectations in the end markets that use memory semiconductors have typically been accompanied by increased capital investment by manufacturers. In addition, semiconductor manufacturers worldwide have migrated to finer line-width process and advanced stacking technologies, which have increased the number of bits produced per wafer. These capital investments and adoption of new technologies may result in increases in the supply of memory semiconductors that are not matched by commensurate growth in demand in the end markets for such products. From time to time, the memory semiconductor industry has experienced significant and sometimes prolonged periods of oversupply and weak prices. As a result of such fluctuations in global demand as well as in the manufacturing capacity available to produce memory semiconductors, the Company's results of operations may be volatile from period to period.

Fluctuation in Exchange Rates of Major Foreign Currencies

The Company's consolidated financial statements are prepared from the local currency denominated financial results, assets and liabilities of the Company and its subsidiaries around the world, which are then translated into Won. To the extent that the Company incurs costs in one currency and makes sales in another, its profit margins may be affected by changes in the exchange rates between the two currencies. In particular, the Company's investments in manufacturing facilities in China have increased the proportion of its expenses that are incurred in RMB, while the Company's sales in China are denominated in U.S. dollars. Accordingly, an unhedged increase in the value of the RMB would increase the Company's construction and manufacturing costs and adversely impact its profitability. Changes in exchange rates can also affect the Won value of sales proceeds and operating and non-operating costs that are denominated in foreign currencies. The Company is unable to increase the prices of its products to adjust fully for the negative effects of exchange rate movements because prices in the memory semiconductor industry are dictated by worldwide supply and demand. In addition, exchange rate fluctuations can affect the Won value of the Company's equity investments and monetary assets and liabilities denominated in foreign currencies. See "Exchange Rate Information" and "Risk Factors – Fluctuations in exchange rates may result in foreign exchange losses."

There has been considerable volatility in exchange rates in recent years, including exchange rates between the Won and the U.S. dollar. Appreciation of the Won may materially and adversely affect the Company's results of operations because, among other things, it reduces the Won value of the Company's export sales, which are primarily denominated in U.S. dollars, as well as causing the Company's export products to be less competitive by raising their prices in U.S. dollar terms. On the other hand, the depreciation of the Won would create foreign exchange translation losses and increase the amount, in Won terms, of interest and principal of the Company's foreign currency-denominated debt, as well as increase in Won terms the cost of raw materials and equipment that the Company purchases from overseas sources. Under the Company's current operating and capital structure, appreciation of the Won generally has a net negative impact on the Company's operating income. Although the impact of exchange rate fluctuations has in the past been partially mitigated by hedging strategies, the Company's results of operations have historically been affected by exchange rate fluctuations. See "– Market Risks – Foreign Exchange Risk" for a sensitivity analysis on the Company's foreign currency exposure from foreign exchange rate change against the Korean Won.

Level of the Company's Capital Expenditures and Production Capacity Expansion

The Company makes substantial capital expenditures annually to support its business goals and objectives, and it plans to continue to invest in enhancing and expanding its production facilities and upgrading its equipment and manufacturing processes. The Company operates in an especially capital-intensive industry that requires continual investments for capacity expansions, equipment upgrades and migration to advanced technologies and manufacturing processes. The Company's cash outflows for acquisition of property, plant and equipment amounted to ₩10,069 billion in 2020, ₩12,487 billion in 2021 and ₩14,873 billion in the first nine months of 2022. The Company currently expects its capital expenditures in 2022 to be within ₩20 trillion. In 2023, the Company plans to reduce its capital expenditures by at least half compared to 2022. In December 2021, the Company also completed the first phase of its acquisition of the Dalian Manufacturing Facility from Intel. See "Business – Strategic Alliances, Investments and Acquisitions." As part of its efforts to ensure its long-term competitiveness, the Company has also announced initiatives to construct an integrated industrial complex in Yongin, Korea for its next generation of fabs and research and development facilities. In addition, in the second phase of the Intel NAND Business Acquisition, the Company is expected to acquire the remaining assets, including the intellectual property related to the manufacture and design of NAND flash wafers, NAND flash wafers-related research and development employees and NAND flash wafers-related workforce at the Dalian Manufacturing Facility, for US$2.3 billion by March 2025.

The Company plans to continue to invest in enhancing and expanding its production facilities and upgrade its equipment and manufacturing processes in order to increase its production capacity, achieve additional economies of scale and enable production of new products. The Company expects that increases in production capacity will have a significant effect on its financial condition and results of operations by enabling it to lower its per-unit manufacturing costs. In addition, the Company expects that its continued efforts to enhance the efficiency and technical capacities of each successive fab it builds will also have a significant effect on its financial condition and results of operations. The Company periodically adjusts its capital expenditure plans on an ongoing basis subject to market demand for the Company's products, the production outlook of the global memory semiconductor industry as well as global economic conditions in general. The Company may delay or not implement some of its announced capital expenditure plans based on its assessment of such market conditions. Production capacity expansion would increase depreciation and amortization expenses as well as financing costs related to capital expenditures. The level of capital expenditures made by the Company, as well as the returns the Company is able to achieve on its capital expenditure investments, will affect the Company's financial condition and results of operations.

Changes in the Company's Product Mix

The Company's operating results depend greatly on the Company's ability to anticipate and respond to emerging customer preferences and demands by ensuring continuing and timely development of new, as well as enhancements to existing, products and stimulate customer demand for new and upgraded products. The Company sells a wide variety of DRAM and NAND flash memory products with various configuration options, architectures and performance characteristics tailored to meet application- and customer-specific needs. The Company believes that it is one of the world's leading companies in developing DRAM with advanced specifications, particularly those relating to higher density, faster data-processing speed and lower power consumption. The Company is continually developing higher-density modules, SSDs and other customized DRAM and NAND flash memory products that are optimized for use in specific applications. The Company believes that offering customized products provides opportunities to mitigate the negative effects of the cyclicality of the memory products market, and its customized products typically command higher prices than commodity DRAM because of their superior performance and specifically tailored characteristics.

As part of the Company's efforts to further strengthen its product portfolio, in December 2021, the Company completed the first phase of its acquisition of the NAND flash memory and storage business of Intel. See "Business – Strategic Alliances, Investments and Acquisitions." The Company has also been striving to diversify its business to areas other than DRAM and NAND flash memory semiconductors in recent years. The Company has expanded its product portfolio into non-memory semiconductors, including CMOS image sensors that are used to perform the role of electronic film in digital photographing devices such as smartphones, tablets, PC laptops and surveillance cameras, as well as engaging in the foundry business through SK hynix system ic, a wholly-owned subsidiary, and Key Foundry, a wholly-owned subsidiary acquired by the Company in August 2022. From time to time, the Company adjusts its manufacturing facilities in order to execute changes in the Company's product mix. For example, in the second half of 2019, the Company initiated conversion of DRAM production lines in its M10 fab in Icheon, Korea in order to increase production of CMOS image sensors in response to an increase in demand for such products. Changes in the Company's product mix will affect the Company's financial condition and results of operations.

Investment Levels in Research and Development Activities

The Company competes in highly competitive global markets characterized by rapidly changing technologies, evolving industry standards and continual improvements in manufacturing processes and product performance features, which result in short product cycles, frequent introduction of new products and price erosion of existing products. The Company believes that continued and timely development of new technologies and products and enhancements to existing products and manufacturing processes are critical to maintaining and improving the Company's competitive position. Accordingly, the Company has made, and will continue to make, significant investments in research and development relating to new technologies and products. The Company incurred expenditures on research and development of ₩3,370 billion in 2020, ₩3,914 billion in 2021 and ₩3,563 billion in the first nine months of 2022 (including capitalized development costs of ₩259 billion in 2020, ₩363 billion in 2021 and ₩199 billion in the first nine months of 2022 as intangible assets). The amount that the Company spends on its research and development activities, as well as the returns the Company is able to achieve on such investments through successful development of next-generation technologies, will affect the Company's financial condition and results of operations.

The Company's Ability to Pursue Additional Operational Cost Savings

The average selling prices of the Company's DRAM and NAND flash memory products have generally been impacted by global market supply and demand dynamics. The market for the Company's products is highly competitive, and the Company faces intense global competition. The Company's competitors have used aggressive pricing and marketing strategies in order to maintain or gain market share. Accordingly, the success of the Company's business depends, in part, on the Company's continual reduction of manufacturing costs and operating expenses. The Company continually engages in various cost-saving and other initiatives intended to reduce costs and increase productivity, including refinement of its manufacturing processes to increase production yields and reduce production cycle time. The Company's results of operations and profitability will continue to be affected by its ability to improve productivity and enhance the cost efficiency of its operations.

Critical Accounting Policies

The preparation of the Company's financial statements requires the Company to make difficult, complex and subjective judgments in making the appropriate estimates and assumptions that affect the amounts reported in its financial statements. By their nature, these judgments are subject to an inherent degree of uncertainty. These judgments are based on the Company's historical experience, terms of existing contracts, its observation of trends in the relevant industry, information provided by its customers and information available from other outside sources, as appropriate. While the Company believes its estimates and judgments are reasonable under the circumstances in which they were made, there can be no assurance that the Company's judgments will prove to be correct or that actual results reported in future periods will not differ from the Company's expectations reflected in its accounting treatment of certain items. See Note 2(3)(b) of the notes to the Annual Financial Statements for the Company's critical accounting policies that apply assumptions and estimates that have a significant risk of resulting in a material adjustment.

Results of Operations – First Nine Months of 2021 Compared to First Nine Months of 2022

The following table presents selected income statement data and changes therein for the first nine months of 2021 and the first nine months of 2022.

	For the Nine Months Ended September 30,		Changes 9M 2021 versus 9M 2022	
	2021	2022	Amount	%
	(In billions of Won)			
Revenue	₩ 30,621	₩ 36,950	₩ 6,328	20.7%
Cost of sales	17,722	21,325	3,603	20.3
Gross profit	12,899	15,625	2,726	21.1
Selling and administrative expenses	4,708	6,917	2,209	46.9
Operating profit	8,191	8,708	517	6.3
Finance income	1,464	4,179	2,715	185.5
Finance expenses	1,080	4,616	3,536	327.3
Share of profit of equity-accounted investees	184	119	(65)	(35.3)
Other income	79	214	136	172.5
Other expenses	87	180	93	107.0
Profit before income tax	8,750	8,424	(326)	(3.7)
Income tax expense	2,454	2,462	8	0.3
Profit for the period	₩ 6,296	₩ 5,962	(334)	(5.3)

Revenue

The following table presents a breakdown of the Company's revenue by principal product category and changes therein for the first nine months of 2021 and the first nine months of 2022.

	For the Nine Months Ended September 30,		Changes 9M 2021 versus 9M 2022	
	2021	2022	Amount	%
	(In billions of Won)			
DRAM	₩ 21,881	₩ 23,594	₩ 1,712	7.8%
NAND flash	7,357	11,819	4,462	60.7
Other products [(1)]	1,383	1,536	154	11.1
Total revenue	₩ 30,621	₩ 36,950	6,328	20.7

(1) Includes revenue from CMOS image sensors and foundry products.

The Company's revenue increased by 20.7%, or ₩6,328 billion, from ₩30,621 billion in the first nine months of 2021 to ₩36,950 billion in the first nine months of 2022 primarily due to increases in revenue from NAND flash sales and, to a lesser extent, DRAM sales and sales of other products. Specifically:

- Revenue from NAND flash sales increased by 60.7%, or ₩4,462 billion, from ₩7,357 billion in the first nine months of 2021 to ₩11,819 billion in the first nine months of 2022 primarily due to (i) an increase in the shipment volume of NAND flash memory products and (ii) a depreciation of the average value of the Won against the U.S. dollar from the first nine months of 2021 to the first nine months of 2022 that contributed to an increase in the Company's revenue from NAND flash sales in Won terms, the aggregate impact of which was partially offset by a decrease in the average selling price of such products. The Company's overall NAND flash bit shipment increased by approximately 56% from the first nine months of 2021 to the first nine months of 2022, primarily driven by NAND flash bit shipments from Solidigm, which was created in December 2021 upon completion of the first phase of the Intel NAND Business Acquisition. Consolidated revenue of SK hynix NAND Product Solutions, through which the Company operates its Solidigm business, was ₩3,849 billion in the first nine months of 2022. In terms of the market average exchange rates announced by Seoul Money Brokerage Services, Ltd., the Won depreciated against the U.S. dollar from an average of ₩1,131.0 to US$1.00 in the first nine months of 2021 to an average of ₩1,268.9.0 to US$1.00 in the first nine months of 2022. On the other hand, the average selling price of NAND flash memory products on a U.S. dollar basis decreased by approximately 9% from the first nine months of 2021 to the first nine months of 2022, reflecting a general decrease in demand for NAND flash memory products in recent months.

- Revenue from DRAM sales increased by 7.8%, or ₩1,712 billion, from ₩21,881 billion in the first nine months of 2021 to ₩23,594 billion in the first nine months of 2022 primarily due to (i) depreciation of the average value of the Won against the U.S. dollar from the first nine months of 2021 to the first nine months of 2022, as discussed above, that contributed to an increase in the Company's revenue from DRAM sales in Won terms and (ii) an increase in DRAM shipment volume, the aggregate impact of which was partially offset by a decrease in the average selling price of such products. The Company's overall DRAM bit shipment increased by approximately 5% from the first nine months of 2021 to the first nine months of 2022, primarily due to an increase in demand for DRAM server memory products. On the other hand, the average selling price of DRAM on a U.S. dollar basis decreased by approximately 8% from the first nine months of 2021 to the first nine months of 2022, reflecting a general decrease in demand for DRAM products in recent months.

- Revenue from the Company's other products increased by 11.1%, or ₩154 billion, from ₩1,383 billion in the first nine months of 2021 to ₩1,536 billion in the first nine months of 2022, primarily due to depreciation of the average value of the Won against the U.S. dollar from the first nine months of 2021 to the first nine months of 2022, as discussed above, and recognition of the revenue of Key Foundry following the Company's acquisition in August 2022.

Cost of Sales and Gross Profit

The Company's cost of sales increased by 20.3%, or ₩3,603 billion, from ₩17,722 billion in the first nine months of 2021 to ₩21,325 billion in the first nine months of 2022 primarily due to increases in (i) expenses related to raw materials, supplies and consumables and (ii) depreciation and amortization related to the Company's production facilities. Expenses related to raw materials, supplies and consumables increased primarily due to increases in shipment volumes of NAND flash memory and DRAM products. Depreciation and amortization related to the Company's production facilities increased as a result of the addition of new facilities, including the Dalian Manufacturing Facility acquired from Intel in December 2021.

The Company's gross profit increased by 21.1%, or ₩2,726 billion, from ₩12,899 billion in the first nine months of 2021 to ₩15,625 billion in the first nine months of 2022. The Company's gross profit margin increased slightly from 42.1% in the first nine months of 2021 to 42.3% in the first nine months of 2022.

Selling and Administrative Expenses

The following table presents a breakdown of the Company's selling and administrative expenses (including research and development expenses) and changes therein for the first nine months of 2021 and the first nine months of 2022.

	For the Nine Months Ended September 30,		Changes 9M 2021 versus 9M 2022	
	2021	2022	Amount	%
	(In billions of Won)			
Selling and administrative expenses:				
Salaries	₩ 573	₩ 850	₩ 277	48.3%
Defined benefits plan	35	35	0	0.2
Employee benefits	134	161	27	20.0
Commission	353	761	408	115.6
Depreciation	159	193	34	21.5
Amortization	375	388	13	3.5
Freight and custody charges	38	43	6	15.7
Taxes and dues	60	78	18	29.3
Advertising	61	75	14	22.7
Supplies	67	85	18	26.5
Sales promotion expenses	126	150	24	19.4
Quality control cost	5	494	489	N.M.(1)
Others	124	239	116	93.7
	₩ 2,109	₩ 3,554	1,444	68.5
Research and developments:				
Expenditure on research and developments	₩ 2,906	₩ 3,563	656	22.6
Development costs capitalized	(308)	(199)	108	(35.2)
	₩ 2,599	₩ 3,363	765	29.4
Total	₩ 4,708	₩ 6,917	2,209	46.9

(1) N.M. means not meaningful.

The Company's selling and administrative expenses (including research and development expenses) increased by 46.9%, or ₩2,209 billion, from ₩4,708 billion in the first nine months of 2021 to ₩6,917 billion in the first nine months of 2022 primarily due to increases in research and development expenses, quality control cost, commission expenses and salary expenses. Specifically:

- Research and development expenses, after adjusting for capitalized development cost, increased by 29.4%, or ₩765 billion, from ₩2,599 billion in the first nine months of 2021 to ₩3,363 billion in the first nine months of 2022, reflecting inclusion of research and development expense related to the Solidigm business following the first phase of the Intel NAND Business Acquisition in December 2021 as well as an increase in the Company's research and development activities.

- Quality control cost increased significantly from ₩5 billion in the first nine months of 2021 to ₩494 billion in the first nine months of 2022 primarily due to the Company's decision to separately estimate and record warranty provisions for the amount expected to be paid for product replacement and other customer supporting activities.

- Commission expenses increased by 115.6%, or ₩408 billion, from ₩353 billion in the first nine months of 2021 to ₩761 billion in the first nine months of 2022 primarily due to increases in fees relating to authorization of new fabs, mergers and acquisition activities, and non-recurring engineering and brand commissions.

- Salary expenses increased by 48.3%, or ₩277 billion, from ₩573 billion in the first nine months of 2021 to ₩850 billion in the first nine months of 2022 primarily due to inclusion of salary expenses of the administrative personnel related to the Solidigm business as well as an increase in the Company's accrued payments under employee profit-sharing arrangements.

The Company's selling and administrative expenses as a percentage of total revenue increased from 15.4% in the first nine months of 2021 to 18.7% in the first nine months of 2022.

Operating Profit

Primarily due to the factors described above, the Company's operating profit increased by 6.3%, or ₩517 billion, from ₩8,191 billion in the first nine months of 2021 to ₩8,708 billion in the first nine months of 2022. The Company's operating profit margin, however, decreased from 26.7% in the first nine months of 2021 to 23.6% in the first nine months of 2022 due primarily to a relatively high increase in selling and administrative expenses.

Finance Income and Expenses

The following table presents a breakdown of the Company's finance income and expenses and changes therein for the first nine months of 2021 and the first nine months of 2022.

	For the Nine Months Ended September 30,		Changes 9M 2021 versus 9M 2022	
	2021	2022	Amount	%
	(In billions of Won)			
Interest income	₩ 17	₩ 44	₩ 28	164.4%
Dividend income	5	1	(4)	(74.2)
Foreign exchange differences	1,385	4,080	2,695	194.6
Gain on disposal of short-term investment assets	25	45	19	74.8
Others	32	9	(23)	(71.7)
Total finance income	₩ 1,464	₩ 4,179	2,715	185.5
Interest expenses	₩ 197	₩ 332	₩ 136	68.9%
Foreign exchange differences	882	4,275	3,394	384.9
Others	2	8	6	352.9
Total finance expenses	₩ 1,080	₩ 4,616	3,536	327.3

The Company recognized net finance income of ₩383 billion in the first nine months of 2021 and net finance expenses of ₩437 billion in the first nine months of 2022, primarily due to the following reasons:

- The Company recognized net gain on foreign exchange differences of ₩503 billion in the first nine months of 2021 but recognized net loss on foreign exchange differences of ₩196 billion in the first nine months of 2022, as (i) the Won depreciated against the U.S. dollar at the end of the period in the first nine months of 2021 and the first nine months of 2022 and (ii) the average value of the Won against the U.S. dollar depreciated in the first nine months of 2021 and the first nine months of 2022. In terms of the market average exchange rates announced by Seoul Money Brokerage Services, Ltd., the Won depreciated against the U.S. dollar from ₩1,088.0 to US$1.00 as of December 31, 2020 to ₩1,184.9 to US$1.00 as of September 30, 2021, and further depreciated against the U.S. dollar from ₩1,185.5 to US$1.00 as of December 31, 2021 to ₩1,434.8 to US$1.00 as of September 30, 2022. The market average exchange rate, which was ₩1,088.0 to US$1.00 as of December 31, 2020, depreciated during the first nine months of 2021 to an average of ₩1,131.0 to US$1.00 in the first nine months of 2021. In addition, the market average exchange rate, which was ₩1,185.5 to US$1.00 as of December 31, 2021, depreciated during the first nine months of 2022 to an average of ₩1,268.9.0 to US$1.00 in the first nine months of 2022.

- Interest expenses increased by 68.9%, or ₩136 billion, from ₩197 billion in the first nine months of 2021 to ₩332 billion in the first nine months of 2022 primarily reflecting an increase in the Company's borrowings as well as a general increase in interest rates from the first nine months of 2021 to the first nine months of 2022.

Share of Profit of Equity-accounted Investees

The Company's share of profit of equity-accounted investees decreased by 35.3%, or ₩65 billion, from ₩184 billion in the first nine months of 2021 to ₩119 billion in the first nine months of 2022 primarily due to a decrease in the Company's proportionate net income in SK China Company Limited from ₩114 billion in the first nine months of 2021 to ₩1 billion in the first nine months of 2022, which was offset in part by an increase in the Company's proportionate net income in Magnus Private Investment Co., Ltd. from ₩45 billion in the first nine months of 2021 to ₩99 billion in the first nine months of 2022.

Other Income and Expenses

The following table presents a breakdown of the Company's other income and expenses and changes therein for the first nine months of 2021 and the first nine months of 2022.

	For the Nine Months Ended September 30,		Changes	
			9M 2021 versus 9M 2022	
	2021	2022	Amount	%
	(In billions of Won)			
Gain on disposal of property, plant and equipment	₩ 57	₩ 126	₩ 69	121.1%
Gain on disposal of investment property	–	64	64	N.A.[1]
Others	22	24	2	9.9
Total other income	₩ 79	₩ 214	136	172.5
Loss on disposal of property, plant and equipment	₩ 7	₩ 4	₩ (3)	(46.9)%
Loss on disposal of intangible assets	3	3	0	6.7
Loss on disposal of trade receivables	4	8	4	113.9
Loss on impairments of property, plant and equipment	–	8	8	N.A.[1]
Loss on impairments of intangible assets	0	50	50	N.M.[2]
Donation	48	57	9	19.4
Others	25	49	25	101.7
Total other expenses	₩ 87	₩ 180	93	107.0

(1) N.A. means not applicable.

(2) N.M. means not meaningful.

The Company's gain on disposal of property, plant and equipment increased by 121.1%, or ₩69 billion, from ₩57 billion in the first nine months of 2021 to ₩126 billion in the first nine months of 2022. In the first nine months of 2021, the Company recognized gain on disposal of property, plant and equipment of ₩57 billion primarily from sale of idle equipment. In the first nine months of 2022, the Company recognized gain on disposal of property, plant and equipment of ₩126 billion primarily from sales of real estate and idle equipment.

The Company recognized gain on disposal of investment property of ₩64 billion in the first nine months of 2022 related to sale of real estate, compared to no such gain in the first nine months of 2021.

The Company's loss on impairment of intangible assets increased from ₩0.4 billion in the first nine months of 2021 to ₩50 billion in the first nine months of 2022. In the first nine months of 2022, the Company recognized loss on impairment of intangible assets of ₩50 billion primarily relating to capitalization of development costs.

Income Tax Expense

The Company's income tax expense increased by 0.3%, or ₩8 billion, from ₩2,454 billion in the first nine months of 2021 to ₩2,462 billion in the first nine months of 2022, despite a 3.7% decrease in profits before income tax, or ₩326 billion, from ₩8,750 billion in the first nine months of 2021 to ₩8,424 billion in the first nine months of 2022. The Company's effective tax rate increased from 28.0% in the first nine months of 2021 to 29.2% in the first nine months of 2022.

Profit for the Period

Primarily due to the factors described above, the Company's profit for the period decreased by 5.3%, or ₩334 billion, from ₩6,296 billion in the first nine months of 2021 to ₩5,962 billion in the first nine months of 2022. The Company's net income margin decreased from 20.6% in the first nine months of 2021 to 16.1% in the first nine months of 2022.

Results of Operations – 2020 Compared to 2021

The following table presents selected income statement data and changes therein for 2020 and 2021.

	For the Year Ended December 31,		Changes: 2020 versus 2021	
	2020	2021	Amount	%
	(In billions of Won)			
Revenue	₩ 31,900	₩ 42,998	₩ 11,097	34.8%
Cost of sales	21,090	24,046	2,956	14.0
Gross profit	10,811	18,952	8,142	75.3
Selling and administrative expenses	5,798	6,542	744	12.8
Operating profit	5,013	12,410	7,398	147.6
Finance income	3,328	2,378	(950)	(28.6)
Finance expenses	1,980	1,470	(511)	(25.8)
Share of profit of equity-accounted investees	(36)	162	199	N.A.[1]
Other income	85	116	31	37.0
Other expenses	172	180	9	5.2
Profit before income tax	6,237	13,416	7,179	115.1
Income tax expense	1,478	3,800	2,322	157.1
Profit for the year	₩ 4,759	₩ 9,616	4,857	102.1

(1) N.A. means not applicable.

Revenue

The following table presents a breakdown of the Company's revenue by principal product category and changes therein for 2020 and 2021.

	For the Year Ended December 31,		Changes 2020 versus 2021	
	2020	2021	Amount	%
	(In billions of Won)			
DRAM	₩ 22,536	₩ 30,600	₩ 8,063	35.8%
NAND flash	7,471	10,529	3,058	40.9
Other products [(1)]	1,893	1,869	(24)	(1.3)
Total revenue	₩ 31,900	₩ 42,998	11,097	34.8

(1) Include revenue from CMOS image sensors and foundry products.

The Company's revenue increased by 34.8%, or ₩11,097 billion, from ₩31,900 billion in 2020 to ₩42,998 billion in 2021 primarily due to increases in revenue from DRAM sales and, to a lesser extent, NAND flash sales. Specifically:

- Revenue from DRAM sales increased by 35.8%, or ₩8,063 billion, from ₩22,536 billion in 2020 to ₩30,600 billion in 2021 primarily due to (i) an increase in DRAM shipment volume and (ii) an increase in their average selling price, which were partially offset by appreciation of the average value of the Won against the U.S. dollar from 2020 to 2021 that had a negative impact on the Company's revenue from DRAM sales in Won terms. The Company's overall DRAM bit shipment increased by approximately 22% from 2020 to 2021, primarily due to an increase in demand for DRAM server and PC memory products following the increase of remote working arrangements during the COVID-19 pandemic. The Company's average selling price of DRAM on a U.S. dollar basis increased by approximately 16% from 2020 to 2021. In terms of the market average exchange rates announced by Seoul Money Brokerage Services, Ltd., the Won appreciated against the U.S. dollar from an average of ₩1,180.1 to US$1.00 in 2020 to an average of ₩1,144.4 to US$1.00 in 2021.

- Revenue from NAND flash sales increased by 40.9%, or ₩3,058 billion, from ₩7,471 billion in 2020 to ₩10,529 billion in 2021 primarily due to an increase in the shipment volume of NAND flash memory products, which was partially offset by (i) a decrease in their average selling prices and (ii) appreciation of the average value of the Won against the U.S. dollar from 2020 to 2021, as discussed above, that had a negative impact on the Company's revenue from NAND flash sales in Won terms. The Company's overall NAND flash bit shipment increased by approximately 62% from 2020 to 2021, primarily due to increases in popularity of NAND flash memory-based SSDs following the increase of remote working arrangements during the COVID-19 pandemic, as well as an increase in demand from manufacturers of mobile devices and game console manufacturers. On the other hand, the average selling price of NAND flash memory products on a U.S. dollar basis decreased by approximately 9% from 2020 to 2021.

- Revenue from the Company's other products decreased slightly by 1.3%, or ₩24 billion, from ₩1,893 billion in 2020 to ₩1,869 billion in 2021, primarily due to a decrease in sales of CMOS image sensors.

Cost of Sales and Gross Profit

The Company's cost of sales increased by 14.0%, or ₩2,956 billion, from ₩21,090 billion in 2020 to ₩24,046 billion in 2021 primarily due to increases in (i) employee benefit expenses, (ii) depreciation and amortization related to the Company's production facilities and (iii) expenses related to raw materials, supplies and consumables. Employee benefit expenses increased primarily due to increases in bonus payments related to the Company's performance. Depreciation and amortization related to the Company's production facilities increased as a result of the addition of new facilities, and expenses related to raw materials, supplies and consumables increased primarily due to increases in shipment volumes of DRAM and NAND flash memory products.

The Company's gross profit increased by 75.3%, or ₩8,142 billion, from ₩10,811 billion in 2020 to ₩18,952 billion in 2021. The Company's gross profit margin increased from 33.9% in 2020 to 44.1% in 2021.

Selling and Administrative Expenses

The following table presents a breakdown of the Company's selling and administrative expenses (including research and development expenses) and changes therein for 2020 and 2021.

	For the Year Ended December 31,		Changes 2020 versus 2021	
	2020	2021	Amount	%
	(In billions of Won)			
Selling and administrative expenses:				
Salaries	₩ 593	₩ 788	₩ 195	32.9%
Defined benefit plan	41	41	0	1.0
Employee benefits	160	182	22	13.8
Commission	335	519	185	55.3
Depreciation	246	219	(27)	(11.1)
Amortization	720	526	(193)	(26.9)
Training	68	68	1	0.7
Advertising	95	93	(2)	(2.2)
Supplies	101	109	8	8.3
Sales promotion expenses	107	165	58	54.2
Others	222	280	57	25.8
	₩ 2,687	₩ 2,991	304	11.3
Research and development:				
Expenditure on research and development	₩ 3,370	₩ 3,914	544	16.1
Development cost capitalized	(259)	(363)	(104)	40.1
	₩ 3,111	₩ 3,551	440	14.1
Total	₩ 5,798	₩ 6,542	744	12.8

The Company's selling and administrative expenses (including research and development expenses) increased by 12.8%, or ₩744 billion, from ₩5,798 billion in 2020 to ₩6,542 billion in 2021 primarily due to increases in research and development, salaries and commission expenses, which were partially offset by a decrease in amortization expense. Specifically:

- Research and development expenses, after adjusting for capitalized development cost, increased by 14.1%, or ₩440 billion, from ₩3,111 billion in 2020 to ₩3,551 billion in 2021, reflecting an increase in the Company's research and development activities.

- Salaries increased by 32.9%, or ₩195 billion, from ₩593 billion in 2020 to ₩788 billion in 2021 primarily due to increases in bonus payments related to the Company's performance as well as in the number of selling and administrative personnel.

- Commission expense increased by 55.3%, or ₩185 billion, from ₩335 billion in 2020 to ₩519 billion in 2021 primarily due to increases in commissions related to consulting services.

- Amortization expense decreased by 26.9%, or ₩193 billion, from ₩720 billion in 2020 to ₩526 billion in 2021 primarily due to a decrease in amortization of capitalized development costs related to DRAM, NAND flash and CMOS image sensor production technologies.

The Company's selling and administrative expenses as a percentage of total revenue decreased from 18.2% in 2020 to 15.2% in 2021.

Operating Profit

Primarily due to the factors described above, the Company's operating profit increased by 147.6%, or ₩7,398 billion, from ₩5,013 billion in 2020 to ₩12,410 billion in 2021. The Company's operating profit margin increased from 15.7% in 2020 to 28.9% in 2021.

Finance Income and Expenses

The following table presents a breakdown of the Company's finance income and expenses and changes therein for 2020 and 2021.

	For the Year Ended December 31,		Changes 2020 versus 2021	
	2020	2021	Amount	%
	(In billions of Won)			
Interest income	₩ 28	₩ 22	₩ (5)	(19.6)%
Dividend income	1	10	9	667.0
Foreign exchange differences	1,528	1,693	166	10.8
Gain on valuation of short-term investment assets	3	7	5	184.2
Gain on valuation of long-term investment assets	1,741	528	(1,213)	(69.7)
Gain on valuation of derivatives	–	35	35	N.A.(1)
Gain on disposal of short-term investment assets	28	49	21	76.6
Gain on disposal of long-term investment assets	0	33	33	N.A.(1)
Total finance income	₩ 3,328	₩ 2,378	(950)	(28.6)
Interest expenses	₩ 253	₩ 260	₩ 6	2.6%
Foreign exchange differences	1,718	1,205	(513)	(29.9)
Loss on disposal of long-term investment assets	0	0	0	N.A.(1)
Loss on valuation of long-term investment assets	7	3	(4)	(53.2)
Loss on valuation of financial liabilities	2	2	0	2.1
Total finance expenses	₩ 1,980	₩ 1,470	(511)	(25.8)

(1) N.A. means not applicable.

The Company's net finance income decreased by 32.6%, or ₩440 billion, from ₩1,347 billion in 2020 to ₩908 billion in 2021, primarily due to the following reasons:

- The Company's net gain on valuation of long-term investment assets decreased by 69.8%, or ₩1,209 billion, from ₩1,734 billion in 2020 to ₩524 billion in 2021. Such fluctuation in valuation of investment assets related primarily to the Company's participation as a member of the Bain Consortium in its purchase of a controlling stake in KIOXIA Holdings Corporation from Toshiba Corporation in June 2018. See "Business – Strategic Alliances, Investments and Acquisitions" and Note 12 of the notes to the Annual Financial Statements.

- The Company recognized net loss on foreign exchange differences of ₩190 billion in 2020 compared to net gain on foreign exchange differences of ₩489 billion in 2021, as (i) the Won appreciated against the U.S. dollar at year-end of 2020 but depreciated at year-end of 2021 and (ii) the average value of the Won against the U.S. dollar depreciated in 2020 but appreciated in 2021. In terms of the market average exchange rate announced by Seoul Money Brokerage Services, Ltd., the Won appreciated against the U.S. dollar from ₩1,157.8 to US$1.00 as of December 31, 2019 to ₩1,088.0 to US$1.00 as of December 31, 2020 but depreciated to ₩1,185.5 to US$1.00 as of December 31, 2021. The market average exchange rate, which was ₩1,157.8 to US$1.00 as of December 31, 2019, depreciated during 2020 to an average of ₩1,180.1 to US$1.00 in 2020 but appreciated during 2021 to an average of ₩1,144.4 to US$1.00 in 2021.

Share of Profit of Equity-accounted Investees

The Company recognized share of loss of equity-accounted investees of ₩36 billion in 2020 compared to share of profit of equity-accounted investees of ₩162 billion in 2021. In 2020, the Company recognized share of loss of equity-accounted investees of ₩36 billion primarily due to its proportionate net loss of ₩57 billion from its interest in Magnus Private Investment Co., Ltd. In 2021, the Company recognized share of profit of equity-accounted investees of ₩162 billion primarily due to its proportionate net profit of (i) ₩111 billion from its interest in SK China Company Limited and (ii) ₩33 billion from its interest in Magnus Private Investment Co., Ltd.

Other Income and Expenses

The following table presents a breakdown of the Company's other income and expenses and changes therein for 2020 and 2021.

	For the Year Ended December 31,		Changes 2020 versus 2021	
	2020	2021	Amount	%
	(In billions of Won)			
Gain on disposal of property, plant and equipment	₩ 39	₩ 72	₩ 33	85.8%
Others	46	44	(2)	(3.8)
Total other income	85	116	31	37.0
Loss on disposal of property, plant and equipment	₩ 45	₩ 12	₩ (33)	(72.6)%
Loss on disposal of intangible assets	5	4	(1)	(19.6)
Loss on disposal of trade receivables	6	5	(1)	(13.6)
Loss on impairment of intangible assets	17	44	27	164.7
Donation	70	77	7	9.8
Others	28	38	9	32.2
Total other expenses	₩ 172	₩ 180	9	5.2

The Company's gain on disposal of property, plant and equipment increased by 85.8%, or ₩33 billion, from ₩39 billion in 2020 to ₩72 billion in 2021. In 2020, the Company recognized gain on disposal of property, plant and equipment of ₩39 billion primarily from sale of idle equipment. In 2021, the Company recognized gain on disposal of property, plant and equipment of ₩72 billion primarily from sale of idle equipment.

The Company's loss on disposal of property, plant and equipment decreased by 72.6%, or ₩33 billion, from ₩45 billion in 2020 to ₩12 billion in 2021. In 2020, the Company recognized loss on disposal of property, plant and equipment of ₩45 billion primarily from expenses related to the cancellation of orders of certain production equipment. In 2021, the Company recognized loss on disposal of property, plant and equipment of ₩12 billion primarily from sale of idle equipment as well as disposal of obsolete equipment.

The Company's loss on impairment of intangible assets increased by 164.7%, or ₩27 billion, from ₩17 billion in 2020 to ₩44 billion in 2021. In 2020, the Company recognized loss on impairment of intangible assets of ₩17 billion primarily from capitalization of development costs. In 2021, the Company recognized loss on impairment of intangible assets of ₩44 billion primarily from capitalization of development costs.

Income Tax Expense

The Company's income tax expense increased by 157.1%, or ₩2,322 billion, from ₩1,478 billion in 2020 to ₩3,800 billion in 2021 primarily reflecting a 115.1% increase in profits before income tax, or ₩7,179 billion, from ₩6,237 billion in 2020 to ₩13,416 billion in 2021. The Company's effective tax rate increased from 23.7% in 2020 to 28.3% in 2021. See Note 32 of the notes to the Annual Financial Statements.

Profit for the Year

Primarily due to the factors described above, the Company's profit for the year increased by 102.1%, or ₩4,857 billion, from ₩4,759 billion in 2020 to ₩9,616 billion in 2021. The Company's net income margin increased from 14.9% in 2020 to 22.4% in 2021.

Liquidity and Capital Resources

Capital Resources and Requirements

The Company has traditionally met its working capital and other capital requirements principally from cash provided by operating activities, while raising the remainder of its requirements primarily through long-term and short-term borrowings. The Company expects that these sources will continue to be its principal sources of cash in the future. From time to time, the Company may also generate cash through sale of its holdings in short-term investment assets as well as its treasury shares.

The Company's principal cash requirements or uses have historically been:

- capital expenditures for property, plant and equipment;
- cash required for its operations, including purchases of raw materials, supplies and consumables, research and development expenses, payroll costs and commissions;
- investments and acquisitions, including those in connection with pursuing strategic relationships;
- interest and principal payments on the Company's short-term and long-term borrowings;
- payments of cash dividends to the Company's shareholders; and
- acquisition of treasury shares.

The Company makes substantial capital expenditures annually to support its business goals and objectives, and it plans to continue to invest in enhancing and expanding its production facilities and upgrading its equipment and manufacturing processes. The Company operates in an especially capital-intensive industry that requires continual investments for capacity expansions, equipment upgrades and migration to advanced technologies and manufacturing processes. The Company's cash outflows for acquisition of property, plant and equipment amounted to ₩10,069 billion in 2020, ₩12,487 billion in 2021 and ₩14,873 billion in the first nine months of 2022. The Company currently expects its capital expenditures in 2022 to be within ₩20 trillion. In 2023, the Company plans to reduce its capital expenditures by at least half compared to 2022. As part of its efforts to ensure its long-term competitiveness, the Company has also announced initiatives to construct an integrated industrial complex in Yongin, Korea for its next generation of fabs and research and development facilities. The Company periodically adjusts its capital expenditure plans on an ongoing basis subject to market demand for the Company's products, the production outlook of the global memory semiconductor industry as well as global economic conditions in general. The Company may delay or not implement some of its announced capital expenditure plans based on its assessment of such market conditions.

Payments of contractual obligations and commitments will also require considerable capital resources. In the ordinary course of its business, the Company routinely enters into commercial commitments for various aspects of its operations, including long-term purchase agreements for raw materials as well as provision of guarantees for indebtedness of its related parties and others. For the Company's contingent liabilities, see Note 32 of the notes to the Interim Financial Statements. The following sets forth the contractual maturities of financial liabilities as of December 31, 2021.

	Payments Due by Period				
	Less than 1 year	1 to 2 years	2 to 5 years	More than 5 years	Total
	(In billions of Won)				
Borrowings [1]	₩ 3,182	₩ 3,352	₩ 8,824	₩ 3,462	₩ 18,820
Lease liabilities	323	219	475	605	1,622
Trade payables	1,359	–	–	–	1,359
Other payables	4,642	65	2,749	28	7,484
Other non-trade payables	2,230	9	15	8	2,263
Derivative liabilities	1	0	–	–	1
Other financial liabilities	130	–	–	–	130
Total	₩ 11,867	₩ 3,645	₩ 12,063	₩ 4,103	₩ 31,679

(1) Including payments of interest under terms and conditions of borrowing contracts and excluding the amount of lease liabilities as of December 31, 2021.

From time to time, the Company may make significant investments and acquisitions, including those in connection with pursuing strategic relationships. For example, as described in "Business – Strategic Alliances, Investments and Acquisitions," the Company participated as a member of the Bain Consortium in its purchase of a controlling stake in Kioxia from Toshiba Corporation in June 2018. As of September 30, 2022, the book value of the Company's investment in SPC 1 was ₩3,704 billion, and the book value of the Company's investment in the convertible bond issued by SPC 2 was ₩2,430 billion, which are accounted for as debt investments and classified as financial assets measured at fair value through profit or loss.

In October 2020, the Company agreed to acquire the NAND flash memory and storage business of Intel. In the first phase of such acquisition, the Company acquired Intel's NAND SSD business (including NAND SSD-related intellectual property and employees), as well as the Dalian Manufacturing Facility, for US$6.1 billion. The Company created a wholly-owned subsidiary in the United States called Solidigm to operate the acquired business. The Company paid an additional US$0.5 billion related to post-closing adjustments in the first nine months of 2022. In the second phase, the Company is expected to acquire the remaining assets, including the intellectual property related to the manufacture and design of NAND flash wafers, NAND flash wafers-related research and development employees and NAND flash wafers-related workforce at the Dalian Manufacturing Facility, for US$2.3 billion by March 2025. See "Business – Strategic Alliances, Investments and Acquisitions." The Company plans to finance the second closing of the Intel NAND Business Acquisition through cash and borrowings, as well as consider other financing options.

Cash Flow

The following table sets forth the Company's cash flows for the periods indicated.

	For the Years Ended December 31,		For the Nine Months Ended September 30,	
	2020	2021	2021	2022
	(In billions of Won)			
Net cash inflow from operating activities	₩ 12,315	₩ 19,798	₩ 14,023	₩ 13,596
Net cash outflow from investing activities	(11,840)	(22,392)	(15,720)	(14,576)
Net cash inflow from financing activities	252	4,492	1,318	103
Effects of exchange rate changes on cash and cash equivalents	(56)	184	165	538
Net increase (decrease) in cash and cash equivalents	670	2,082	(214)	(339)
Cash and cash equivalents at beginning of the period	2,306	2,976	2,976	5,058
Cash and cash equivalents at end of the period	2,976	5,058	2,762	4,719

Cash Flows from Operating Activities

The Company's net cash inflow from operating activities decreased from ₩14,023 billion in the first nine months of 2021 to ₩13,596 billion in the first nine months of 2022, primarily reflecting an increase in cash outflow related to income tax paid from ₩894 billion in the first nine months of 2021 to ₩2,910 billion in the first nine months of 2022, which was partially offset by an increase in cash generated from operations from ₩15,068 billion in the first nine months of 2021 to ₩16,763 billion in the first nine months of 2022. The Company's gross cash flow from its sales activities increased as discussed above. In addition, the Company recorded cash outflow of ₩1,775 billion related to an increase in trade receivables in the first nine months of 2021 compared to cash inflow of ₩203 billion related to a decrease in trade receivables in the first nine months of 2022, and the Company recorded cash outflow of ₩298 billion related to a decrease in trade payables in the first nine months of 2021 compared to cash inflow of ₩1,143 billion related to an increase in trade payables in the first nine months of 2022. However, the aggregate impact from such increases in cash inflows was offset in large part by cash used in buildup of inventories reflecting a slowdown in demand for the Company's products in recent months. The Company's cash outflow related to buildup of inventories increased from ₩356 billion in the first nine months of 2021 to ₩4,970 billion in the first nine months of 2022.

The Company's net cash inflow from operating activities increased from ₩12,315 billion in 2020 to ₩19,798 billion in 2021, primarily reflecting an increase in cash generated from operating activities from ₩12,917 billion in 2020 to ₩20,951 billion in 2021, which was partially offset by an increase in cash outflows related to income tax paid from ₩371 billion in 2020 to ₩1,015 billion in 2021. The Company's gross cash flow from its sales activities significantly increased as discussed above. However, the Company's cash outflows related to increase in trade receivables increased from ₩935 billion in 2020 to ₩2,526 billion in 2021.

Cash Flows from Investing Activities

The Company's net cash outflow from investing activities decreased from ₩15,720 billion in the first nine months of 2021 to ₩14,576 billion in the first nine months of 2022. This decrease was attributable primarily to net cash used in acquisition of short-term investment assets of ₩5,178 billion in the first nine months of 2021 compared to net proceeds from sale of short-term investment assets of ₩1,267 billion in the first nine months of 2022, the impact of which was partially offset by an increase in cash used for acquisition of property, plant and equipment from ₩9,732 billion in the first nine months of 2021 to ₩14,873 billion in the first nine months of 2022.

The Company's net cash outflow from investing activities significantly increased from ₩11,840 billion in 2020 to ₩22,392 billion in 2021. This increase was attributable primarily to (i) net cash used in acquisitions of business of ₩7,250 billion in 2021 that related primarily to the Company's acquisition of the NAND SSD business as well as the Dalian Manufacturing Facility from Intel, (ii) an increase in cash used for acquisition of property, plant and equipment from ₩10,069 billion in 2020 to ₩12,487 billion in 2021 and (iii) an increase in net cash used in acquisition of short-term investment assets from ₩115 billion in 2020 to ₩1,548 billion in 2021.

Cash Flows from Financing Activities

The Company's net cash inflow from financing activities decreased from ₩1,318 billion in the first nine months of 2021 to ₩103 billion in the first nine months of 2022. This decrease was attributable primarily to a decrease in net proceeds from borrowings from ₩2,355 billion in the first nine months of 2021 to ₩1,781 billion in the first nine months of 2022. In addition, cash used for the Company's dividend payments increased from ₩800 billion in the first nine months of 2021 to ₩1,475 billion in the first nine months of 2022.

The Company's net cash inflow from financing activities increased from ₩252 billion in 2020 to ₩4,492 billion in 2021. This change was attributable primarily to an increase in net proceeds from borrowings from ₩1,252 billion in 2020 to ₩5,613 billion in 2021. Partially offsetting such impact, cash used for the Company's dividend payments increased from ₩684 billion in 2020 to ₩805 billion in 2021.

Liquidity

The Company had a working capital surplus (defined as current assets net of current liabilities) of ₩7,499 billion as of December 31, 2020, ₩12,101 billion as of December 31, 2021 and ₩13,514 billion as of September 30, 2022. The Company manages its liquidity risk to maintain adequate net working capital by constantly managing projected cash flows. The Company also aims to mitigate liquidity risk by contracting with financial institutions with respect to bank overdrafts, cash pooling and banking facility agreements for efficient management of funds. The Company believes that cash from its operations, current and future financing arrangements (including short-term and long-term borrowing facilities and issuances of debentures) and cash and cash equivalents are likely to be sufficient to satisfy its operating cash requirements, capital expenditure needs and debt service requirements for the foreseeable future.

The Company strives to maintain a sound capital structure, and it monitors capital on the basis of its debt-to-equity ratio and net borrowing ratio. The following table sets forth the Company's debt-to-equity ratio and net borrowing ratio as of the dates indicated:

	As of December 31,		As of September 30, 2022
	2020	2021	
	(In billions of Won, except percentages)		
Total liabilities	₩ 19,265	₩ 34,195	₩ 40,823
Total equity	51,909	62,191	68,723
Cash and cash equivalents, short-term financial instruments and short-term investment assets	4,948	8,673	7,212
Total borrowings	11,252	17,624	22,022
Debt-to-equity ratio (1)	37.11%	54.98%	59.40%
Net borrowing ratio (2)	12.14%	14.39%	21.55%

(1) Ratio of total liabilities divided by total equity.

(2) Ratio of (i) total borrowings minus cash and cash equivalents, short-term financial instruments and short-term investment assets divided by (ii) total equity.

The Company believes that it has various options to meet its financing needs, including short-term and long-term borrowing facilities and issuances of debentures. However, the ability of the Company to continue to obtain debt financing at a reasonable cost will depend on several factors, some of which may be outside its control, including general economic conditions, the liquidity of the Korean and international capital markets and commercial banking markets and the Government's policies regarding Won and foreign currency borrowings. These policies can affect the Company's ability to borrow and gain access to domestic and foreign capital markets and commercial banking markets or restrict the use of proceeds of any financing, and can require the Company to incur indebtedness from other sources that entail higher interest rates or shorter maturities.

From time to time, the Company may also generate cash from sale of its treasury shares. As of September 30, 2022, the Company held 40,351,325 treasury shares, representing approximately 5.5% of the total issued common shares of the Company.

Market Risks

Market risk is the risk of loss related to adverse changes in market prices, including (i) foreign exchange risk, (ii) interest rate risk and (iii) price risk associated with the Company's investments in equity and debt securities. The Company's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance. Risk management is carried out by the Company's corporate finance division in accordance with policies approved by the board of directors. The Company's corporate finance division identifies, evaluates and hedges financial risks in close cooperation with the Company's operating units. The board of directors provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments and investment of excess liquidity.

Foreign Exchange Risk

The Company operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the U.S. dollar, Chinese RMB, Euro and Japanese Yen. The foreign exchange risk of the Company primarily arises from future commercial transactions, recognized assets and liabilities in foreign currencies, and net investments in foreign operations. From time to time, the Company also uses derivative instruments to partially hedge its foreign exchange risk. In the past, the Company has selectively entered into fixed-to-fixed cross-currency swaps and floating-to-fixed cross-currency interest rate swaps to partially hedge foreign exchange risk relating to bonds and borrowings.

As of September 30, 2022, the effect on the Company's profit before income tax as a result of strengthening or weakening of the foreign currencies by 10% is as follows:

	If Strengthened by 10%	If Weakened by 10%
	(In billions of Won)	
U.S. dollar	₩ (254)	₩ 254
Japanese Yen	(50)	50
Chinese RMB	(24)	24
Euro	(16)	16

Interest Rate Risk

Interest rate risk is defined as the risk that the interest expenses arising from borrowings will fluctuate because of changes in future market interest rates. The Company is exposed to interest rate risk on its existing floating rate borrowings and on additional debt financings that the Company may periodically undertake for various reasons, including capital expenditures and refinancing of the Company's existing borrowings. A rise in interest rates will increase the cost of its existing variable rate borrowings.

As of September 30, 2022, if interest rates on borrowings were 100 basis points higher/lower with all other variables held constant, profit before income tax for the nine-month period would have been ₩80 billion lower/higher, mainly as a result of higher/lower interest expense on floating rate borrowings (except for floating-rate borrowings amounting to ₩717 billion under floating-to-fixed cross-currency interest rate swap agreements and ₩143 billion under an interest rate swap agreement) and interest income on floating rate financial assets.

Security Price Risk

The Company's investment portfolio consists of direct and indirect investments in listed and non-listed equity securities as well as debt securities. Such securities are exposed to security price risk. As of September 30, 2022, the book value of the Company's short-term investment assets was ₩1,925 billion. As of such date, the book value of the Company's long-term investment assets was ₩6,554 billion, which included assets related to the Company's participation as a member of the Bain Consortium in its purchase of a controlling stake in Kioxia from Toshiba Corporation in June 2018. As of September 30, 2022, the book value of the Company's investment in SPC 1 was ₩3,704 billion, and the book value of the Company's investment in the convertible bond issued by SPC 2 was ₩2,430 billion, which are accounted for as debt investments and classified as financial assets measured at fair value through profit or loss.

BUSINESS

Overview

The Company is one of the world's largest memory semiconductor companies and engages in the design, manufacture and sale of advanced memory semiconductors. In the DRAM market, the Company is ranked second globally based on revenue with a market share of 28.2% in the first nine months of 2022, according to market research conducted by Omdia. In addition, the Company was the second largest supplier of NAND flash memory in terms of revenue, with a worldwide market share of 19.4% in the first nine months of 2022, according to Omdia. The Company's memory products can be used in virtually all electronic devices, including PCs, servers, graphic cards, mobile devices such as smartphones and tablets, and other consumer electronics products. The Company's product portfolio also includes non-memory semiconductors, including CMOS image sensors that are used to perform the role of electronic film in digital photographing devices such as smartphones, tablets, PC laptops and surveillance cameras. The Company has also been engaging in the foundry business through SK hynix system ic, a wholly-owned subsidiary, and Key Foundry, a wholly-owned subsidiary acquired by the Company in August 2022.

The Company sells a wide variety of DRAM and NAND flash memory products with various configuration options, architectures and performance characteristics tailored to meet application- and customer-specific needs. The Company believes that it is one of the world's leading companies in developing DRAM with advanced specifications, particularly those relating to higher density, faster data-processing speed and lower power consumption. The Company is continually developing higher-density modules, SSDs and other customized DRAM and NAND flash memory products that are optimized for use in specific applications. The Company believes that offering customized products provides opportunities to mitigate the negative effects of the cyclicality of the memory products market, and its customized products typically command higher prices than commodity DRAM because of their superior performance and specifically tailored characteristics.

The Company owns and operates fabs in Icheon and Cheongju, Korea and Wuxi and Dalian, China. The Company also owns and operates assembly and testing facilities for back-end processing of its products in Icheon and Cheongju, Korea and Chongqing, China. As part of the Company's efforts to reduce unit manufacturing costs, improve manufacturing yields and enhance its profitability, the Company periodically phases out the operations of its older fabs as well as upgrading them to new fabs that implement more advanced processing technologies. In addition to regular maintenance and enhancement of existing fabs, the Company began mass production operations of its M16 fab in Icheon, Korea starting in the first quarter of 2021. In October 2022, the Company began construction of a new extension fab called M15X in Cheongju with targeted completion in early 2025. As part of its efforts to ensure its long-term competitiveness, the Company has also announced initiatives to construct an integrated industrial complex in Yongin, Korea for its next generation of fabs and research and development facilities.

In order to maintain its technological leadership, as well as to access new markets for its products, the Company engages in strategic initiatives, including entering into joint ventures and joint product development and supply agreements. From time to time, the Company may also acquire equity stakes in other industry players to further strengthen its business relationships as well as acquire complementary businesses that further strengthen the Company's leading position in the industry. In October 2020, the Company agreed to acquire the NAND flash memory and storage business of Intel. In the first phase of such acquisition, the Company acquired Intel's NAND SSD business (including NAND SSD-related intellectual property and employees), as well as the Dalian Manufacturing Facility, for US$6.1 billion. The Company created a wholly-owned subsidiary in the United States called Solidigm to operate the acquired business. The Company paid an additional US$0.5 billion related to post-closing adjustments in the first nine months of 2022. In the second phase, the Company is expected to acquire the remaining assets, including the intellectual property related to the manufacture and design of NAND flash wafers, NAND flash wafers-related research and development employees and NAND flash wafers-related workforce at the Dalian Manufacturing Facility, for US$2.3 billion by March 2025. See "Business – Strategic Alliances, Investments and Acquisitions."

The Company's revenue was ₩31,900 billion in 2020, ₩42,998 billion in 2021, ₩30,621 billion in the first nine months of 2021 and ₩36,950 billion in the first nine months of 2022. The Company recorded profit for the year of ₩4,759 billion in 2020 and ₩9,616 billion in 2021, and profit for the period of ₩6,296 billion in the first nine months of 2021 and ₩5,962 billion in the first nine months of 2022. The Company had total assets of ₩96,386 billion and total equity of ₩62,191 billion as of December 31, 2021 and total assets of ₩109,546 billion and total equity of ₩68,723 billion as of September 30, 2022.

History

In 1983, the Company's predecessor, Hyundai Electronics Industries Co., Ltd. ("Hyundai Electronics Industries"), entered the memory semiconductor industry with the construction of its first fab in Icheon, Korea. In December 1996, Hyundai Electronics Industries became a public company through an initial public offering and listing of its common shares on the KRX KOSPI Market. In May 1999, Hyundai Electronics Industries acquired the memory semiconductor business of the LG Group, and such business was subsequently merged into Hyundai Electronics Industries.

In response to a substantial decline in global DRAM prices as a result of worldwide oversupply, Hyundai Electronics Industries underwent a corporate restructuring starting in 2001, including divestment of non-core businesses and a restructuring of its debt through debt cancellations, extensions of maturities and reductions of interest rates as well as a debt-to-equity swap with its creditors. In March 2001, Hyundai Electronics Industries changed its name to Hynix Semiconductor Inc. ("Hynix Semiconductor"), and the Korea Fair Trade Commission approved its disaffiliation from the former Hyundai Group in August 2001. In February 2012, the former creditors of Hynix Semiconductor sold their remaining interest in the Company to SK Telecom Co., Ltd. ("SK Telecom"). Hynix Semiconductor changed its name to SK hynix Inc. in March 2012. As of September 30, 2022, SK Square Co., Ltd., which was demerged from SK Telecom in 2021, held a 20.1% interest in the Company.

Products and Applications

The Company sells a wide variety of DRAM and NAND flash memory products with various configuration options, architectures and performance characteristics tailored to meet application- and customer-specific needs. The Company's product portfolio also includes non-memory semiconductors, including CMOS image sensors that are used to perform the role of electronic film in digital photographing devices such as smartphones, tablets, PC laptops and surveillance cameras. The Company has also been engaging in the foundry business through SK hynix system ic, a wholly-owned subsidiary, and Key Foundry, a wholly-owned subsidiary acquired by the Company in August 2022.

The following table sets forth the Company's revenue by principal product category and related percentage data for the periods indicated.

	Year Ended December 31,				Nine Months Ended September 30,			
	2020		2021		2021		2022	
	(in billions of Won, except percentages)							
DRAM	₩ 22,536	70.6%	₩ 30,600	71.2%	₩ 21,881	71.5%	₩ 23,594	63.9%
NAND Flash	7,471	23.4	10,529	24.5	7,357	24.0	11,819	32.0
Other Products	1,893	5.9	1,869	4.3	1,383	4.5	1,536	4.2
Total	₩ 31,900	100.0%	₩ 42,998	100.0%	₩ 30,621	100.0%	₩ 36,950	100.0%

DRAM

DRAM is a type of random access memory semiconductor and is the highest density and lowest cost per bit memory component available for high-speed digital data storage and retrieval. Sales of DRAM accounted for 70.6% of the Company's total revenue in 2020, 71.2% in 2021 and 63.9% in the first nine months of 2022. The Company offers a wide range of commodity DRAM as well as customized DRAM for applications with higher performance requirements that are sold at higher prices. The Company's customized DRAM is used primarily in servers as well as graphics, mobile and other consumer electronics applications.

PC Memory. The Company offers commodity DRAM that is primarily used in the PC industry. The Company's representative memory module products are offered in densities ranging from (i) 4 gigabyte ("GB") to 32 GB in a Double Data Rate 4 Synchronous DRAM ("DDR4") configuration and (ii) 8 GB to 32 GB in a Double Data Rate 5 Synchronous DRAM ("DDR5") configuration that offers higher performance, lower power consumption and better resiliency compared to DDR4. In the past, the introduction of new or updated Windows operating systems has resulted in upgrading of PCs, which in turn has increased demand for commodity DRAM. In recent years, the increase in popularity of chromebooks that are designed for the education market, PCs specifically designed for online games and multi-function ultrabook laptops that require higher density memory has contributed to an increase in demand for the Company's PC memory products.

Server Memory. In recent years, increases in demand from data centers that provide cloud computing services contributed to a significant increase in the Company's sales of high-density customized DRAM memory modules that are specifically designed for servers. Such increase has also been driven by the growing popularity of analytics applications based on artificial intelligence and machine learning technologies that require sophisticated big data cloud computing, as well as the build-out of 5G mobile infrastructure utilizing edge computing paradigms that bring computation and data storage closer to the location where they are needed to improve response time and save bandwidth. The Company's representative server memory module products are offered in densities ranging from 16 GB to 256 GB in a DDR4 and DDR5 configuration.

Graphic Memory. In recent years, the increasing popularity of high-resolution online games and 4K and 8K video content streaming as well as production of online media content and cinematic 3D motion graphics have contributed to a steady increase in demand for graphic memory products that are primarily used in graphics processing units ("GPU") and other graphics cards. The Company's representative graphic memory products are offered in densities ranging from 8 gigabit ("Gb") to 16 Gb in a Graphics DDR 6 Synchronous DRAM ("GDDR6") configuration. The Company also offers next-generation graphic memory products with densities ranging from 8 GB to 24 GB in a high bandwidth memory ("HBM") configuration, including HBM2E (generation 2 extension) and HBM3 (generation 3). HBM is designed to meet greater data-processing speed requirements of graphics applications that incorporate virtual reality, deep leading and artificial intelligence technologies. The Company seeks to strengthen its relationships with leading GPU, PC and game console manufacturers to more effectively meet their needs for high-bandwidth graphics memory solutions.

Mobile Memory. The Company's mobile memory products are designed to have low-power and high-bandwidth features that are optimized for use in mobile devices such as smartphones and tablets. Although growth in global sales volume of smartphones has decreased in recent years, the Company believes that increases in memory density per device will continue to contribute to growth in demand for mobile memory products. The Company's representative mobile memory products are offered in densities ranging from (i) 4 GB to 12 GB in a Low-Power Double Data Rate ("LPDDR") 4X configuration and (ii) 8 GB to 18 GB in a LPDDR5 configuration that provides faster data-processing speed while consuming less power. The demand for high-density mobile memory products is expected to increase in the future, driven by artificial intelligence and augmented reality applications and expansion of other content offered through 5G mobile services, as well as enhancements of functions in high-end smartphones such as the use of multiple cameras. The Company also offers a lineup of package-on-package and multi-chip package solutions to more effectively address the requirements of next-generation mobile devices.

Consumer Memory. The Company offers customized DRAM for use in various consumer electronics devices such as digital televisions, set-top boxes for Internet protocol televisions ("IP-TV"), smart speakers, car navigation systems and other digital appliances that connect to the Internet. The Company designs its consumer memory products to meet the specific requirements of its customers and offers a full lineup of standardized to highly customized products in various specifications, including densities of 4 Gb in a DDR3 configuration, from 4 Gb to 32 Gb in a DDR4 configuration, as well as LPDDR4, LPDDR4X and LPDDR5 configurations and specialty industrial temperature and automotive temperature models. The Company believes that the increasing popularity of high-resolution video content and the launch of 5G mobile services will contribute to growth in demand for consumer memory products that are necessary for digital devices.

NAND Flash Memory

NAND flash memory is a non-volatile memory device, which retains memory content even when power is turned off. Sales of NAND flash memory products accounted for 23.4% of the Company's total revenue in 2020, 24.5% in 2021 and 32.0% in the first nine months of 2022. In the past, the Company sold NAND flash memory products for use in portable devices with storage needs, such as USB drives, digital still cameras and MP3 players. In more recent years, the increasing popularity of more advanced smartphones and tablets with multimedia functions as well as increases in consumption of high-resolution content have contributed to growth in demand for NAND flash memory products. In addition, NAND flash memory-based SSDs, which provide faster and more reliable data access and consume less power compared to hard disk drives, have started to replace hard disk drives as the main storage device for laptops and servers. Enterprise use of SSDs is expected to increase further as cloud computing services offered by data centers and "Internet of Things" ("IoT") applications with higher storage requirements and real-time data-processing needs continue to evolve.

The Company offers a wide range of NAND flash memory products in various formats, including Universal Flash Storage ("UFS") formats in densities ranging from 64 GB to 1 terabyte ("TB"), embedded Multi Media Card formats in densities ranging from 8 GB to 64 GB, and raw NAND in single-level cell, multi-level cell and triple-level cell formats. In order to more effectively respond to evolving market trends, the Company continues to invest in enhancing its 3D NAND technology, which enables NAND flash memory cells to be stacked vertically in multiple layers, and is working toward transitioning its mass production of NAND flash memory products from utilizing 3D 128 layers and 3D 176 layers technology. In the SSD market, the Company's representative SSD products for enterprise customers are offered in densities ranging from 480 GB to 15.36 TB, and the Company's representative SSD products for manufacturers are offered in densities ranging from 128 GB to 2 TB.

In December 2021, the Company completed the first phase of its acquisition of the NAND flash memory and storage business of Intel, which includes the NAND SSD business and the NAND component and wafer business as well as the Dalian Manufacturing Facility. With the Intel NAND Business Acquisition, the Company believes it has enhanced the competitiveness of its storage solution (including enterprise SSDs) capabilities in the rapidly growing NAND flash memory market. The Company created a wholly-owned subsidiary in the United States called Solidigm to operate the acquired business. Solidigm utilizes its industry-leading NAND SSD and quadruple level cell NAND flash memory technology and manufacturing capability to offer a portfolio of advanced 3D NAND flash memory solutions, particularly high-end enterprise SSDs. In April 2022, the Company and Solidigm unveiled enterprise SSD P5330, their first technology and product collaboration that combines the Company's 128-layer NAND flash with Solidigm's SSD controller and firmware expertise.

CMOS Image Sensors

CMOS image sensors are a type of imaging device that performs the role of electronic film in digital photographing devices such as smartphones, tablets, PC laptops and surveillance cameras. Cost and image quality are key to success in the image sensor market. CMOS image sensors offer a distinct form factor, cost, speed and operating power advantage over charge-coupled devices, and enhancements in image quality have led to applications in additional devices such as medical equipment, DSLR cameras, camcorders and automobiles. In recent years, the increasing sophistication of camera functions in smartphones, including use of triple and quadruple cameras in high-end models, has also contributed to growth in demand for CMOS image sensors.

The Company is currently focused on the smartphone market and the PC laptop market, which share similar specifications and requirements. The Company's representative CMOS image sensor products are offered in resolutions ranging from 5 megapixels to 64 megapixels utilizing advanced back-side illumination technology. The Company developed 0.64um pixel technology in 2022 and has further narrowed the technological gap with global industry leaders in the CMOS image sensors market, as well as to continue to expand the Company's portfolio of higher-resolution products. The Company is also pursuing additional growth opportunities and striving to diversify applications of its products in new markets such as biotechnology, surveillance cameras and automobiles. In the second half of 2019, the Company initiated conversion of DRAM production lines in its M10 fab in Icheon, Korea in order to increase production of CMOS image sensors in response to an increase in demand for such products.

Customers, Sales and Marketing

The Company has a global customer base consisting of leading manufacturers and original equipment manufacturers ("OEMs") of consumer electronics products, communications equipment, PCs, servers and workstations. In 2021, two of the Company's customers each represented more than 10%, and in the aggregate 22.3%, of the Company's total revenue. In the first nine months of 2022, two of the Company's customers each represented more than 10%, and in the aggregate 22.5%, of the Company's total revenue. In addition to establishing a strong long-term customer base, the Company actively seeks to expand its customer base by targeting emerging markets.

The following table sets forth the Company's revenue by region based on the location of selling entities and related percentage data for the periods indicated.

	Year Ended December 31,				Nine Months Ended September 30,			
	2020		2021		2021		2022	
	(in billions of Won, except percentages)							
United States	₩ 12,686	39.8%	₩ 17,144	39.9%	₩ 11,687	38.2%	₩ 19,248	52.1%
China	12,218	38.3	15,730	36.6	11,583	37.8	10,778	29.2
Asia (1)	4,322	13.5	7,023	16.3	5,148	16.8	4,689	12.7
Europe	1,223	3.8	1,638	3.8	1,138	3.7	1,289	3.5
Korea	1,452	4.6	1,462	3.4	1,065	3.5	944	2.6
Total	₩ 31,900	100.0%	₩ 42,998	100.0%	₩ 30,621	100.0%	₩ 36,950	100.0%

(1) Other than China and Korea.

Sales outside of Korea are primarily conducted through the Company's ten overseas sales subsidiaries located in the United States, Germany, the United Kingdom, Japan, Singapore, India, Taiwan and China. The sales subsidiaries typically sell directly to the end users of the Company's products. The Company also relies on semiconductor product distributors depending on the characteristics of the customer base and geographic location. Such distributors typically carry a wide variety of different products, including the Company's products as well as those of its competitors, in inventory for onward sale to their customers. The Company's sales subsidiaries have significantly reduced their dependence on distributors, relying more on their internal sales and marketing teams to sell directly to the Company's end customers.

In line with the increase in segmentation within the DRAM market and the growth of applications that require tailored memory solutions, the Company has focused its sales and marketing activities on expanding its base of long-term customers who look to the Company as their preferred supplier of customized memory products. The Company believes having a diversified portfolio makes it less susceptible to variations in demand in different market segments, especially in the commodity DRAM market. The Company's customers look for reliability, scale and timely delivery, and the Company believes that its close relationships with strategic customers who are leaders in their respective fields enable the Company to anticipate market trends and evolving customer product needs. The Company typically enters into mutually non-binding long-term supply agreements of one to three years with its customers, which usually do not establish fixed pricing and volume commitments. The Company's existing long-term arrangements do not restrict the Company from entering into similar arrangements with other customers.

The Company manages its accounts receivable and credit exposure to customers by establishing credit limits for each customer in accordance with the Company's internal credit guidelines. The Company maintains three general categories of customer accounts:

- Strategic accounts for global OEMs: the Company's chief financial officer conducts a comprehensive review of all strategic account customers at least once each year. The chief financial officer has discretion to adjust credit limits for all strategic account customers, including downgrades.

- Core accounts for leading OEMs: core accounts are monitored, and credit limits adjusted, by the respective core account managers at the Company's headquarters who report directly to the chief financial officer at least once each year.

- Local accounts for smaller-scale OEMs and distributors: local accounts are required to pay in cash and customers are typically unable to obtain credit in excess of the value of the collateral provided, such as letters of credit.

The Company considers each customer's current and potential contribution to its overall sales, industry leadership and product technology as well as other quantitative and qualitative criteria to determine individual credit limits. The Company also takes certain measures, such as factoring arrangements and procurement of insurance for trade receivables, to protect the Company from excessive exposure to credit risks. To date, the Company has not experienced any material problems relating to customer payments.

Product Warranty

Despite the Company's quality control efforts, because the design and manufacturing process for memory semiconductors is highly complex, the Company may ship products that do not fully comply with customer specifications, contain defects or are otherwise incompatible with their intended uses. Under the Company's general terms and conditions of sale and in accordance with industry practice, the Company provides a one-year warranty that is usually limited to repair or replacement of defective items or return of, or a credit with respect to, amounts paid for such items. From time to time, the Company may provide more extensive warranty coverage to certain customers.

Strategic Alliances, Investments, and Acquisitions

The Company continually seeks out opportunities to further its strategic objectives, including by entering into joint ventures and joint product development and supply agreements, to further solidify its market position as a leading semiconductor company in the world. Cooperation in product design, manufacturing and sales and marketing between partner companies has increased in response to the growing diversity and complexity of memory semiconductors and applications, demand for technological enhancements and increasing costs associated with keeping pace with industry developments. The Company believes that its strategic initiatives will not only assist in maintaining and growing its presence in existing markets but also provide the Company with a cost-effective means of accessing new markets, products and technologies.

As part of the efforts to expand the Company's foundry business, the Company acquired Key Foundry in August 2022. From time to time, the Company has also acquired equity stakes in other industry players to further strengthen its business relationships and may do so again in the future. For example, in June 2018, the Company participated as a member of the Bain Consortium in its purchase of a controlling stake in Kioxia from Toshiba Corporation. As a member of the Bain Consortium, the Company invested ₩2,637 billion for an indirect limited partnership interest in SPC 1, which in turn holds an equity interest in Kioxia. In addition, the Company invested ₩1,279 billion to acquire a convertible bond issued by a second special purpose company, SPC 2, which is convertible into an approximately 15.0% equity interest in SPC 2 upon the occurrence of certain specified events. SPC 2 in turn holds an equity interest in Kioxia. As of September 30, 2022, the book value of the Company's investment in SPC 1 was ₩3,704 billion, and the book value of the Company's investment in the convertible bond issued by SPC 2 was ₩2,430 billion, which are accounted for as debt investments and classified as financial assets measured at fair value through profit or loss.

The Company may also pursue acquisition of complementary businesses and technologies rather than through internal development in response to changing competitive pressures.

Intel NAND Business Acquisition

In December 2021, the Company completed the first phase of its acquisition of the NAND flash memory and storage business of Intel, which includes the NAND SSD business and the NAND component and wafer business as well as the Dalian Manufacturing Facility. With the Intel NAND Business Acquisition, the Company believes it has enhanced the competitiveness of its storage solution (including enterprise SSDs) capabilities in the rapidly growing NAND flash memory market. The Company created a wholly-owned subsidiary in the United States called Solidigm to operate the acquired business. Solidigm utilizes its industry-leading NAND SSD and quadruple level cell NAND flash memory technology and manufacturing capability to offer a portfolio of advanced 3D NAND flash memory solutions, particularly high-end enterprise SSDs.

First Phase. In the first phase, the Company acquired Intel's NAND SSD business (including NAND SSD-related intellectual property and employees), as well as the Dalian Manufacturing Facility, for US$6.1 billion. In connection with closing of the first phase, the Chinese State Administration for Market Regulation granted a conditional business combination approval with certain conditions, including the obligation to maintain a reasonable pricing policy and production level and support the entry of third-party competitors in the Chinese SSD market during the next five years. The Company may apply to waive such conditions after expiration of the five-year period.

Second Phase. In the second phase, the Company is expected to acquire the remaining assets, including the intellectual property related to the manufacture and design of NAND flash wafers, NAND flash wafers-related research and development employees and NAND flash wafers-related workforce at the Dalian Manufacturing Facility, for US$2.3 billion in March 2025. The second closing is subject to governmental approvals as well as other customary closing conditions and customary termination fees, which may be significant, if the transaction is terminated under certain specified circumstances.

Competition

The Company operates in an intensely competitive market, which has been characterized by erosion of selling prices, frequent product enhancements from changes in technology and relatively short product life cycles. During the past decade, the memory semiconductor industry has experienced consolidation as well as the formation of strategic alliances, such as a joint venture between Kioxia and Western Digital targeting the NAND flash memory market. The Company's major competitors in the DRAM market include Samsung Electronics and Micron Technology. The Company's major competitors in the NAND flash memory market include Samsung Electronics, Kioxia, Micron Technology and Western Digital.

The Company competes in its principal product lines based on the following factors:

- pricing;
- manufacturing costs, yields and product availability;
- product performance, quality and reliability;
- successful and timely development of new products and manufacturing processes;
- ability to deliver in large volumes on a timely basis and the ability to meet changes in the customers' demands;
- marketing and distribution capability;
- customer service, including technical support; and
- brand recognition and financial strength.

Entry into memory semiconductor manufacturing requires substantial capital expenditures and significant technological and manufacturing expertise. Although the Company believes that its existing investment, experience and technological expertise provide "time to market" and economies of scale advantages, the Company faces increasing competition from emerging companies that may significantly expand the scale of their operations, as well as from potential repositioning and expansion by storage solution companies and existing customers that develop memory solutions in-house. In addition, in recent years, various industrialized nations have taken measures to promote high-technology industries, which may intensify the competitive landscape of the semiconductor industry. For example, in August 2022, the U.S. Government enacted the CHIPS and Science Act of 2022, which provides federal aid to promote emerging industries in the United States, including strengthening its domestic semiconductor manufacturing capabilities. Such efforts may incentivize U.S. semiconductor companies to invest in the expansion of their production capabilities. As part of its efforts to promote a robust semiconductor supply chain, the U.S. Government also initiated the Chip 4 Alliance, a new U.S.-Asian semiconductor partnership among the United States, Korea, Japan and Taiwan. Such alliance may lead China and other nations to take measures to more actively develop their semiconductor manufacturing capabilities, which may further intensify competition in the global semiconductor industry.

Equipment and Suppliers

Like other memory semiconductor manufacturers, the Company depends on a limited number of manufacturers in the Netherlands, the United States and Japan for its key equipment. The principal pieces of equipment the Company uses to manufacture its semiconductors include steppers, scanners, tracks, etchers, furnaces, wet stations, implanters, chemical vapor deposition, metrology inspection and chemical mechanical planarization equipment. The Company also seeks to maintain testers with the ability to test a variety of different memory semiconductors. In addition to specialized testing equipment, the Company maintains a variety of other types of equipment which are also used in the testing process, such as automated handlers and probers (with special handlers for wafer probing), reformers and PC workstations for use in software development.

The Company generally seeks to obtain testing equipment with similar functionality from various vendors. However, the Company's purchases of high-end equipment are limited to several manufacturers. In periods of high market demand, the lead times from order to delivery of such equipment can be as long as six to twenty-four months. The Company seeks to manage this process through early reservation of appropriate delivery slots and constant communication with its equipment suppliers.

Raw Materials and Supplies

The raw materials used in the Company's semiconductor fabrication process include polished silicon wafers, chemicals, metals such as titanium and aluminum, gases and subsidiary materials. Wafers are the most significant raw material in terms of cost, representing approximately 10% of the Company's cost of sales in recent years. The other principal raw materials used in assembly include substrates, gold wire, wafer backside lamination tape and printed circuit boards. The Company sources most of its raw materials, including wafers, from suppliers in Korea, Japan and the United States. In addition, the Company's manufacturing processes also require a significant amount of electricity and purified water. In order to obtain reliable electric power and water suppliers, the Company maintains back-up power facilities and water storage facilities.

The Company is not dependent on any one supplier for a substantial portion of its raw material requirements for assembly and testing, and the Company believes that it generally has access to alternative sources of supply for its principal raw materials. However, from time to time, the Company and other semiconductor manufacturers have experienced shortages and increases in lead times for delivery of raw materials, which in turn have resulted in interruptions in production and delivery of products in the past. To minimize the potential for significant interruptions of supplies of principal raw materials, the Company has entered into multi-year supply agreements with its key material suppliers and plans to enter into similar agreements with other major suppliers, as well as diversify the geographic location of key international suppliers and increase sourcing from suppliers in Korea.

The Company's purchasing policy focuses on the capability of a supplier to meet its development and mass production requirements. The Company's principal raw material suppliers are selected on the basis of internal regulations by its engineers, quality control staff and purchase staff. The Company's purchases are generally planned at the end of the year based on the non-binding forecasts provided by its customers. To improve material quality, the Company has also undertaken regular information exchange and joint research and product development with strategic suppliers of raw materials.

Manufacturing

Manufacturing Processes

The manufacturing process for DRAM involves etching a hole into the substrate. The front-end production of a semiconductor begins with the mask-making process, in which each layer of the pattern of the circuit is duplicated on a photographic negative, known as a mask, by an electron beam generator. Next, raw silicon wafers are oxidized and modified to form transistors, and semiconductor materials are applied to the wafer in multiple layers through a series of patterning, etching, deposition and implantation processes. Each of these processes is conducted in a highly controlled, clean environment. Dust particles, equipment errors, minute impurities in materials or defects in photo masks cause wafers to be discarded or chips to be non-functional.

The back-end production process involves inspection of individual semiconductors, called "chips" or "dies." Chips that fail this test are either scrapped or repaired by laser trimming. A wafer is then cut into individual dies. Good chips are connected to a conductive lead frame through wire bonding and the bonded semiconductors are then encapsulated using a plastic mold compound or a ceramic casing. These packaged semiconductors are fully tested for functionality and reliability by specialized testing equipment.

The manufacturing process for NAND flash memory is substantially similar to that of DRAM, but does not include the capacitor manufacturing step. Consequently, NAND flash memory production, as compared to that of DRAM, results in increased efficiency in utilizing fab space, reduced yield risk and reduced turn-around time.

Due to the competitive nature of the memory semiconductor market, manufacturers are continually seeking the most optimal production methods. The five most important determinants of competitive advantage are:

Yield. Yield means the percentage of "good dies" per wafer. Manufacturing processes and quality control need to be optimized to generate maximum yield.

Line width/layer. Line width is the minimum feature size or distance between two features (lines) on a chip. Transitioning to finer line-widths is important in order to increase the number of dies per wafer and eventually reduce cost per bit. Leading manufacturers are currently manufacturing at line widths of 1z nanometer class and 1a nanometer class technology for DRAM and 3D 176 layers technology for NAND flash memory products. Different manufacturers define line width differently and there may be slight variations in feature size for any given line-width process technology.

Wafer size. The number of chips produced depends on the technology used and the size of the wafer. Most semiconductor manufacturers, including the Company, are currently manufacturing using wafers with a diameter of 12 inches.

Density. Density is measured by the number of memory cells per chip. For a given wafer size, assuming the same process technology, doubling the density doubles the area used on the wafer and the price received upon selling the chip. The assembly and final testing costs remain the same.

Cycle time. Semiconductor manufacturing is composed of several hundred wafer processing steps. As more advanced technology such as finer line width is adopted, additional manufacturing process steps are required, which results in lengthened cycle time. Controlling the level of cycle time is becoming more critical in order to maintain competitiveness.

Manufacturing Facilities

The Company owns and operates fabs located in Icheon and Cheongju, Korea and Wuxi and Dalian, China. The Icheon facility is located approximately 80 kilometers from Seoul. The Cheongju facility is located approximately 140 km from Seoul. The Wuxi facility is located approximately 140 kilometers from Shanghai. The Dalian facility, which was purchased from Intel in December 2021 and is operated by the Company's wholly-owned subsidiary, Solidigm, is located in the third-most populous city of Northeast China on the southern tip of the Liaodong peninsula.

The following table sets forth information regarding the Company's fabs as of September 30, 2022:

Fab	Product Category	Commencement of Operations
Icheon, Korea		
M10	CMOS image sensors and DRAM	Third quarter of 2005
M14	DRAM and NAND flash	Third quarter of 2015
M16	DRAM	First quarter of 2021
Cheongju, Korea		
M11.	NAND flash	Second quarter of 2008
M12	NAND flash	Second quarter of 2012
M15	NAND flash	Fourth quarter of 2018
Wuxi, China		
C2	DRAM	Third quarter of 2006
C2F	DRAM	First quarter of 2019
Dalian, China		
Dalian	NAND	Purchased from Intel in December 2021 (1)

(1) For a discussion of the Intel NAND Business Acquisition, see "Business – Strategic Alliances, Investments and Acquisitions – Intel NAND Business Acquisition."

The Company's fabs operate 365 days a year, 24 hours a day on a three-shift, eight hours per shift basis. Maintenance at each facility is performed concurrently with production. The Company's fabs are staffed with engineers, technicians and other employees whose duty is to monitor design and production processes to ensure high quality. These employees include line inspectors who work with members of the production staff to conduct examination, testing and fine-tuning of products during the production process. Quality control personnel are involved from initial design to production. The Company may periodically adjust its production capacity based on market demand for the Company's products, the production outlook of the global memory semiconductor industry as well as global economic conditions in general.

The Company also owns and operates assembly and testing facilities for back-end processing of its products in Icheon and Cheongju, Korea and Chongqing, China. The Company also utilizes a factory operated by HITECH Semiconductor (Wuxi) Co., Ltd. ("HITECH Semiconductor") in Wuxi, China, a joint venture company established by the Company and Wuxi Taiji Industry Co., Ltd. ("Wuxi Taiji Industry"). The Company holds a 45.0% interest in the joint venture.

As part of the Company's efforts to reduce unit manufacturing costs, improve manufacturing yields and enhance its profitability, the Company periodically phases out the operations of its older fabs as well as upgrading them to new fabs that implement more advanced processing technologies. In addition to regular maintenance and enhancement of existing fabs, the Company began mass production operations of its M16 fab in Icheon, Korea starting in the first quarter of 2021. In August 2020, the Company began mass production at an 8-inch foundry plant in Wuxi, China, in which it owns a 50.1% interest. In October 2022, the Company began construction of a new extension fab called M15X in Cheongju with targeted completion in early 2025. As part of its efforts to ensure its long-term competitiveness, the Company has also announced initiatives to construct an integrated industrial complex in Yongin, Korea for its next generation of fabs and research and development facilities.

The Company's cash outflows for acquisition of property, plant and equipment amounted to ₩10,069 billion in 2020, ₩12,487 billion in 2021 and ₩14,873 billion in the first nine months of 2022. The Company currently expects its capital expenditures in 2022 to be within ₩20 trillion. In 2023, the Company plans to reduce its capital expenditures by at least half compared to 2022. The Company periodically adjusts its capital expenditure plans on an ongoing basis subject to market demand for the Company's products, the production outlook of the global memory semiconductor industry as well as global economic conditions in general. The Company may delay or not implement some of its announced capital expenditure plans based on its assessment of such market conditions.

Research and Development

The Company competes in an industry characterized by rapid technological changes. The Company believes that it must continue to develop technologically advanced products and manufacturing processes in order to remain competitive in the memory semiconductor industry. The Company's main research and development facilities are located in Icheon, Korea and the Company engages in various research and development activities, including in the areas of advanced process development, circuit and layout design, enhancement of manufacturing processes, process integration, photo mask design and development, physical and electrical analysis and simulation and modeling. The Company incurred expenditures on research and development of ₩3,370 billion in 2020, ₩3,914 billion in 2021 and ₩3,563 billion in the first nine months of 2022. Of such amounts, the Company capitalized development costs of ₩259 billion in 2020, ₩363 billion in 2021 and ₩199 billion in the first nine months of 2022 as intangible assets.

The Company has entered into a number of licensing and cross-licensing agreements with other manufacturers pursuant to which it obtains access to advanced technologies for incorporation into its own manufacturing processes. See "– Patents and Licensed Technologies."

Patents and Licensed Technologies

Both the Company's ability to develop its own technologies as well as its access, through licenses or other arrangements, to technologies of other leading international companies are important to the Company's ability to design and manufacture competitive products. The Company's success depends in part on its ability to obtain patents, licenses and other intellectual property rights relating to its products. As of September 30, 2022, the Company and three of its subsidiaries (SK hynix memory solutions America Inc., SK hynix system ic and Solidigm) owned 3,278 patents and 88 trademarks in Korea and 14,964 patents and 205 trademarks outside Korea. As of the same date, the Company and its three subsidiaries had 11,589 patent and trademark applications pending in Korea and abroad. The Company's patents are related primarily to semiconductors and semiconductor manufacturing processes.

The Company also licenses a number of patented technologies and processes from third parties under cross-licensing, technical assistance and other agreements. These agreements generally grant the Company a non-exclusive license to manufacture products in return for payment of royalties or a cross-license to manufacture and sell certain products both in Korea and overseas during a fixed but usually renewable term. The Company considers its technical assistance and licensing agreements to be important to its business and believes that it will be able to negotiate additional licenses as needed and renew existing agreements on commercially reasonable terms that will not adversely affect the Company's ability to use the related technology.

Environmental Matters

The Company's manufacturing operations use and generate a variety of chemicals and gases, and the Company is subject to certain regulations relating to the use, storage, discharge and disposal of such chemicals and gases and other emissions and waste. The Company is vigorous in its efforts to engage in environmentally responsible management of, and to protect the environment from damage resulting from, its operations. The Company believes that its levels of pollution control are higher than those mandated by Korean and Chinese government standards. The Company employs licensed environmental specialists for various environmental areas, including air quality, water quality, toxic materials and radiation. The Company also operates a comprehensive environmental management system to eliminate or minimize the possible negative effects of its manufacturing processes on the environment and employees. The Company educates and trains its employees in environmental issues and the proper handling of hazardous substances and requires adherence to corporate guidelines on environmental protection measures.

The Company undergoes periodic inspection by both internal and external inspectors in accordance with ISO 14001 standards to monitor the operation and maintenance of its environmental management system. In order to continue certification, the Company is required to meet annual requirements in environmental policy, compliance, planning, management, structure and responsibility, training, communication, document control, operational control, emergency preparedness and response, record keeping and management review. The Company also undergoes periodic inspection by both internal and external inspectors in accordance with ISO45001 and KOSHA 18001 standards to monitor the operation and maintenance of its occupational health and safety management systems.

In addition, the Company has taken measures to ensure that it is proactively addressing ESG issues. In 2022, the Company developed an ESG strategy framework called "PRISM." The goals for each of PRISM's five pillars by 2030 (unless specified otherwise below) are as follows:

- P – Pursue a brighter future: generate cumulative social contribution value of ₩1 trillion; increase gender/nationality diversity of the board of directors to 30%; and lower the rate of metabolic syndrome by 10%.

- R – Restore the environment: maintain direct and indirect greenhouse gas emissions at 2020 levels; reduce greenhouse gas emissions intensity by 57% (by 2026); achieve renewable energy use rate of 33%; conserve cumulative 600 million tons of water; and reduce water withdrawal intensity by 35% (by 2026).

- I – Innovate technology: reduce process gas emissions by 40%; improve destruction and removal efficiency of abatement systems to 95%; and double the energy efficiency of high bandwidth memory products.

- S – Synchronize sustainability efforts: ensure all new suppliers sign the Company's Supplier Code of Conduct; ensure all tier 1 suppliers complete an online ESG self-assessment; and invest ₩3 trillion in technological cooperation to promote shared growth.

- M – Motivate our people: triple the ratio of women in executive positions; ensure 10% representation of women in team leader positions; and achieve 200 hours of annual self-development education per employee.

Insurance

The Company maintains property insurance policies with reputable insurance companies covering its equipment, manufacturing facilities, research and development facilities and inventory. These insurance policies cover losses due to fire, earthquake, flood and other natural disasters. The Company also maintains liability and casualty insurance policies that cover various incidents, including work-related injuries to employees, product liability, environmental pollution liability and director and officer liability. The Company considers its insurance coverage to be consistent with market practice in the Korean semiconductor industry.

Employees

As of September 30, 2022, the Company, on a stand-alone basis, had 31,337 full-time employees. As of December 31, 2021, the Company, on a stand-alone basis, had 30,135 full-time employees, and, on a consolidated basis, had 38,021 full-time employees. The Company's success depends to a significant extent upon its ability to attract, retain and motivate qualified employees. Such employees, particularly engineers, production managers and technicians in the memory semiconductor industry, are in high demand, and the Company devotes significant resources to identifying, hiring, training, successfully integrating and retaining these employees. The Company seeks to leverage the SK Group's brand-recognition to attract top-tier talent from both Korea and abroad and strives to maintain an entrepreneurial, productive and innovation-focused culture.

The Company grants annual increases in basic wages and pays periodic bonuses. The Company also provides benefits such as medical insurance, employment insurance and workers' compensation to its employees as well as providing fringe benefits including housing loans, periodic health checkups and the provision of childcare and recreational facilities. As of September 30, 2022, the Company had three labor unions, all of which have collective bargaining agreements with the Company. As of such date, the two largest of such labor unions had 14,058 of the Company's employees as their members. In recent years, the Company has not experienced a strike or other material work stoppage and considers labor relations with its workforce to be good.

The Company's full-time employees in Korea, including executive officers as well as non-executive employees, are subject to a pension insurance system pursuant to the National Pension Act of Korea, under which the Company makes monthly contributions to the pension accounts of the employees, and upon retirement, such employees are paid from their pension accounts. The Company contributes an amount equal to 4.5% of an employee's standard monthly wages, and each employee contributes 4.5% of his or her standard monthly wages, into his or her personal pension account. The Company also operates defined benefit and defined contribution retirement pension plans for its employees. For further information regarding the Company's obligations under its retirement pension plans, see Note 21 of the notes to the Annual Financial Statements and Note 19 of the notes to the Interim Financial Statements, appearing elsewhere in this Offering Circular.

Litigation and Regulatory Proceedings

The Company is subject to a number of claims and is a party to a number of legal and regulatory proceedings, including those that are incidental to the normal course of its business.

Class Action Lawsuit in the U.S. and Canada

In April 2018, a class-action lawsuit was filed by direct and indirect DRAM purchasers against the Company, SK hynix America Inc. and other DRAM manufacturers at the U.S. District Court for the Northern District of California (the "U.S. District Court"), asserting claims based on alleged price-fixing of DRAM from June 1, 2016 to February 1, 2018. Similar lawsuits were subsequently filed at courts in Canada and Israel.

United States. In December 2020 and September 2021, the U.S. District Court dismissed all lawsuits filed by direct and indirect purchasers in the United States. Both the direct and indirect purchasers subsequently appealed. In March 2022, the U.S. 9th Federal Court of Appeals maintained the U.S. District Court's decision to dismiss the lawsuit filed by indirect purchasers in the United States. In June 2022, the direct purchaser plaintiffs in the United States voluntarily agreed to dismiss their appeal.

Canada. In June and November 2021, the Quebec District Court and the Ontario Federal Court decided to dismiss the certification motions filed by the purchasers in Canada. Both the direct and indirect purchasers subsequently appealed. Such appeals are still in progress, and the Company intends to vigorously defend against such lawsuits.

Israel. In May 2021, the lawsuits filed by the buyers in Israel were dismissed due to the plaintiffs' repeated failure to serve.

Anti-trust Investigation in China

In May 2018, the State Administration for Market Regulation of China initiated an investigation into alleged violation of antitrust laws relating to the Company's sales of DRAM in China. The investigation is ongoing, and the Company is currently unable to predict the outcome of the investigation.

MANAGEMENT

Board of Directors

The board of directors has ultimate responsibility for the management of the Company's business affairs. The Company is required to have six or more directors but the number of directors may not exceed ten directors, and independent directors must constitute a majority of the total number of directors in accordance with the Company's articles of incorporation. All directors are required to be elected by an affirmative vote of a majority of shares present at the general meeting of shareholders, provided that such affirmative votes may not be less than one-fourth of the total issued and outstanding shares. In the election of an Audit Committee member who is also an independent director, shareholders who own voting shares in excess of 3% of the total voting shares may not exercise their voting rights with respect to such excess shares under the Korean Commercial Code and the Company's articles of incorporation. The term of office of a director will expire upon the close of the third ordinary general meeting of shareholders to be convened after his or her inauguration.

Independent directors are non-standing directors elected from among those persons who do not have a special relationship with the Company that would interfere with the exercise of their independent judgment. The Independent Director Nomination Committee recommends the candidates for independent directors to the general meeting of shareholders. The Company's articles of incorporation require that candidates for independent directors have professional knowledge or experience in management, economy, law or relevant technologies and satisfy the eligibility requirements under the Korean Commercial Code and other relevant laws and regulations.

The representative director is a director elected by a majority of the board of directors and is empowered to make decisions regarding the Company's day-to-day business as its chief executive officer. Noh-Jung Kwak and Jung-Ho Park serve as the Company's representative directors.

Directors and Executive Officers

The tables below set forth information regarding the Company's directors and executive officers as of the date of this Offering Circular. The business address of each of the Company's directors and executive officers is at the Company's registered office at 2091, Gyeongchung-daero, Bubal-eub, Icheon-si, Gyeonggi-do, Korea.

Directors

Name	Position	First Elected	End of Current Term
Jung-Ho Park.	Chief Executive Officer and Vice Chairman	March 2017	March 2024
Noh-Jung Kwak	Chief Executive Officer and President	March 2022	March 2025
Jong-Won Noh	President	March 2022	March 2025
Yung-Ku Ha	Independent Director; Chairman of the Board	March 2019	March 2025
Chang-Hwan Shin	Independent Director	March 2017	March 2023
Ho-Keun Song	Independent Director	March 2018	March 2024
Hyun-Jae Cho	Independent Director	March 2018	March 2024
Tae-Hwa Yoon	Independent Director	March 2018	March 2024
Ae-Ra Han	Independent Director	March 2020	March 2023

Executive Officers (Other than Directors)

Name	Position	First Elected/ Appointed	Office/Department
Tae-Won Chey	Chairman	February 2012	Chairman
Sung-Wook Park	Vice Chairman	March 2009	Future Technology
Dong-Sub Kim	President	August 2018	Communication and External Affairs
Gyo-Won Jin	President	December 2016	CEO Office

Committees of the Board of Directors

The Company currently has five committees that serve under its board of directors:

- Audit Committee;
- Independent Director Nomination Committee;
- Sustainability Committee;
- Compensation Committee; and
- Strategy Committee.

The Company's board of directors may establish other committees if it deems them necessary. The Company's board of directors appoints each member of these committees, except for members of the Audit Committee.

Audit Committee

Under Korean law and the Company's articles of incorporation, the Company is required to have an Audit Committee consisting of three or more directors at least two-thirds of whom must be independent directors. Members of the Audit Committee are elected by the Company's shareholders at the general meeting of shareholders.

The Company's Audit Committee is responsible for reviewing the Company's business affairs and accounts and monitoring the various matters carried out by the board of directors. The Audit Committee also has the right to request the board of directors to convene an extraordinary general meeting of shareholders by presenting a written statement to the board that sets forth the agenda of the meeting and grounds for convening the meeting. The Company is required to appoint independent auditors selected by its Audit Committee and to report such appointment to the Company's shareholders at the general meeting of shareholders or to notify the shareholders as of the latest record date of such appointment in writing or by electronic mail or by disclosure on the Company's website. Currently, the Company's Audit Committee consists of four directors: Yung-Ku Ha, Tae-Hwa Yoon, Chang-Hwan Shin and Ae-Ra Han. The chairman of the committee is Tae-Hwa Yoon.

The committee holds meetings at least once each quarter, and more frequently as needed.

Independent Director Nomination Committee

The Company's Independent Director Nomination Committee is responsible for reviewing and recommending candidates for independent directors for election at the general meeting of shareholders. Currently, the Company's Independent Director Nomination Committee consists of three members: Yung-Ku Ha, Ho-Keun Song and Hyun-Jae Cho.

The committee holds regular meetings prior to the annual general meeting of shareholders, and more frequently as needed.

Sustainability Committee

The Company's Sustainability Committee is responsible for overseeing the Company's compliance management system as well as reviewing and resolving matters regarding contributions exceeding ₩1 billion and sustainability management strategies and results. Currently, the Substantiality Committee consists of four members: Noh-Jung Kwak, Ho-Keun Song, Hyun-Jae Cho and Ae-Ra Han. The chairman of the committee is Ho-Keun Song.

The committee holds meetings at least once each quarter, and more frequently as needed.

Compensation Committee

The Company's Compensation Committee is responsible for reviewing and resolving matters related to compensation of the Company's management. Currently, the Compensation Committee consists of seven members: Jung-Ho Park, Ho-Keun Song, Yung-Ku Ha, Hyun-Jae Cho, Tae-Hwa Yoon, Chang-Hwan Shin and Ae-Ra Han.

The committee holds meetings prior to the annual general meeting of shareholders and more frequently as needed.

Strategy Committee

The Company's Strategy Committee is responsible for reviewing important strategic partnerships and investments such as equity investments and key licenses. Currently, the Strategy Committee consists of five members: Jung-Ho Park, Jong-Won Noh, Yung-Ku Ha, Hyun-Jae Cho and Chang-Hwan Shin.

The committee holds meetings at least semi-annually, and more frequently as needed.

Compensation of Directors

The aggregate compensation, consisting of salaries, defined benefit plan expenses and share-based payment expenses, to the Company's directors, including directors who also held executive officer positions at the Company, was approximately ₩5 billion in 2021.

As of September 30, 2022, there were no outstanding transactions other than in the ordinary course of business undertaken by the Company in which its directors or executive officers were interested parties. As of September 30, 2022, there were no loans granted by the Company or its subsidiaries to any of its directors and executive officers.

Stock Option Plan

The Company believes that the use of stock options is an important element of its strategy to maintain a highly motivated management team and to align the interests of senior management with those of the Company's shareholders. Under Korean law, subject to certain exceptions, the Company may by special resolution of the shareholders grant stock options to its officers and employees who have contributed or are expected to contribute to the management and technical innovation of the Company, up to an aggregate of 15% of the total number of its then-issued and outstanding shares. Stock options to officers and employees other than directors may also be granted pursuant to a resolution of the Company's board of directors in an amount not exceeding the upper limit provided in the applicable laws, which is within 10% of the total number of Company's then-issued and outstanding shares. In such case, the Company is required to obtain the approval for the granting of stock options by the first general meeting of the shareholders that is convened after such granting of stock options. As of September 30, 2022, the Company had outstanding stock options in respect of an aggregate of 683,158 common shares.

SHARE OWNERSHIP

The following table sets forth information relating to the Company's shareholder composition as of September 30, 2022:

Shareholder	Number of Common Shares	Ownership Percentage
SK Square Co., Ltd.	146,100,000	20.1%
National Pension Service	54,908,381	7.5
The Capital Group Companies, Inc.	36,811,727	5.1
Others	449,830,932	61.8
Treasury shares	40,351,325	5.5
Total issued and outstanding common shares	728,002,365	100.0%

Except as described above, no other person or entity known by the Company to be acting in concert, directly or indirectly, jointly or severally, owned 5% or more of the Company's issued and outstanding common shares or exercised control or could exercise control over the Company as of the date of this Offering Circular.

SK GROUP

The SK Group is Korea's second largest business group in terms of combined assets as of December 31, 2021, according to the Korea Fair Trade Commission, and is comprised of approximately 186 companies. As of December 31, 2021, the total assets of the member companies of the SK Group amounted to approximately ₩292 trillion, according to the Korea Fair Trade Commission. The SK Group has played a key part in the development of the Korean economy, encouraged by the Government's focus on export-oriented industrialization.

Founded in the early 1950s as a textile manufacturer, the SK Group has evolved into a major business group, with interests in the energy, chemical, semiconductor, information technology, telecommunications, construction, logistics and service industries. SK Holdings became the holding company of the group on July 1, 2007. Member companies of the SK Group are organized into four sub-groups: the green group, the digital group, the advanced materials group and the biopharmaceuticals group. The following chart shows select member companies of the SK Group as of September 30, 2022:

Green	Digital	Advanced Materials	Biopharmaceuticals
SK Innovation	SK Square	SK hynix	SK Biopharmaceuticals
SK E&S	SK Telecom	SK Siltron	SK Pharmteco
SKC	SK Networks	SK Inc. Materials	SK Bioscience
SK Ecoplant	SK Inc. C&C		
SK Discovery	SK Broadband		
SK Chemicals	SK Planet		
SK Gas	11Street Co., Ltd.		
SK Energy	SK Shieldus		
SK Geo Centric	SK Telink		
SK On	SK Magic		
SK Enmove	SK Rent-a-Car		
SK IE Technology			
SK Incheon Petrochem			
SK Trading International			
SK Earthon			

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The Company engages from time to time in various transactions with related parties. The Company believes that it has conducted its transactions with related parties as it would in comparable arm's-length transactions with a non-related party, on a basis substantially as favorable to the Company as would be obtainable in such transactions.

Under the Korean Commercial Code, in the event the Company enters into a transaction with any of its directors, major shareholders or certain related parties of such directors or major shareholders, (i) material terms about the transaction shall be disclosed to the Company's board of directors and (ii) the transaction must be approved by the Company's board of directors (by the affirmative vote of two-thirds or more of the directors).

In addition, in the event that the Company enters into any of the following transactions with its specially-related parties such as its affiliates where the transaction value (in case of the fourth item below, the aggregate amount incurred over a fiscal quarter) exceeds (i) 5% of the greater of the Company's total equity or paid-in capital or (ii) ₩5 billion, the Company is required to (i) obtain approval from its board of directors and (ii) disclose such transaction pursuant to the Monopoly Regulation and Fair Trade Act.

- providing funds for or dealing with provisional payment or loan payment;
- providing or dealing with securities such as stocks or corporate bonds;
- providing or dealing with assets such as real estate or intangible assets; and
- providing services or products for or dealing with certain affiliates which satisfy the requirements under the Enforcement Decree of the Monopoly Regulation and Fair Trade Act, as a counterpart or on behalf of such affiliate.

A summary of the Company's material transactions with related parties is set forth below.

Transactions with SK ecoplant Co., Ltd.

The Company's transactions with SK ecoplant Co., Ltd. ("SK ecoplant" and formerly SK Engineering & Construction Co., Ltd.) consist primarily of SK ecoplant's construction of facilities and the Company's acquisition of such assets. SK ecoplant is a subsidiary of SK Holdings Co., Ltd. and a leading construction company in Korea. The Company's acquisition of assets from SK ecoplant amounted to ₩1,375 billion in 2020, ₩1,981 billion in 2021 and ₩1,333 billion in the first nine months of 2022.

Transactions with ESSENCORE Limited

The Company's transactions with ESSENCORE Limited ("ESSENCORE") consist primarily of sales of the Company's NAND flash memory products. ESSENCORE is a subsidiary of SK Holdings Co., Ltd. Operating revenues and others received from ESSENCORE amounted to ₩676 billion in 2020, ₩824 billion in 2021 and ₩504 billion in the first nine months of 2022.

Transactions with HITECH Semiconductor

The Company's transactions with HITECH Semiconductor consist primarily of provision by HITECH Semiconductor of back-end processing services for the Company's products. HITECH Semiconductor is a provider of integrated circuit packaging and testing services for semiconductors and was established in November 2009 as a joint venture between the Company and Wuxi Taiji Industry. As of September 30, 2022, the Company held a 45.0%

interest in HITECH Semiconductor. Operating expenses and others paid to HITECH Semiconductor amounted to ₩544 billion in 2020, ₩558 billion in 2021 and ₩495 billion in the first nine months of 2022.

For further information relating to the Company's transactions with related parties, see Note 34 of the notes to the Annual Financial Statements and Note 31 of the notes to the Interim Financial Statements, appearing elsewhere in this Offering Circular.

TERMS AND CONDITIONS OF THE 2026 NOTES AND THE GREEN NOTES

The following is a description of the Terms and Conditions of the Notes (as defined below), which (subject to modification and except for the paragraphs in italics) will be endorsed on the Notes in definitive form (if issued).

*Each of the 2026 Notes and the Green Notes (collectively, the "**Notes**") will be issued by SK hynix Inc. (the "**Company**") (or any successor to the Company) subject to and with the benefit of a separate Fiscal Agency Agreement dated January 17, 2023 (such agreement, as amended and/or supplemented and/or restated from time to time, respectively, the "**2026 Notes Fiscal Agency Agreement**" and the "**Green Notes Fiscal Agency Agreement**" and collectively, the "**Fiscal Agency Agreements**") made among the Company, Citicorp International Limited as the fiscal agent (the "**Fiscal Agent**") and Citibank, N.A., London Branch as paying agent (the "**Paying Agent**"), registrar (the "**Registrar**") and transfer agent (the "**Transfer Agent**") and any other agent or agents appointed from time to time with respect to each series of the Notes.*

*The statements in these Terms and Conditions include summaries of, and are subject to, the detailed provisions of and definitions in the Fiscal Agency Agreements. Copies of the Fiscal Agency Agreements are available for inspection during normal business hours (being between 9:00 a.m. to 3:00 p.m.) by the holders of the Notes following prior written request and satisfactory proof of holding at the specified office of the Paying Agent or any other paying agent that the Company may appoint, as may be required from time to time (references herein to "**Paying Agents**" shall refer to the Paying Agent and any paying agents so appointed). The holders are entitled to the benefit of, are bound by, and are deemed to have notice of, all the provisions of the Fiscal Agency Agreements. In these Terms and Conditions, references to the Agents (as defined below) shall include any successor appointed under the Fiscal Agency Agreements, and references to the Company shall include any successor company or business entity succeeding to obligations under the Notes.*

*In acting under the Fiscal Agency Agreements, the Paying Agent, the Registrar, the Transfer Agent and any other agent or agents appointed by the Company (the "**Agents**" and each an "**Agent**") thereunder are acting solely as agents for the Company and do not assume any obligation or relationship of agency or trust for or with the Noteholders.*

1 FORM, DENOMINATION AND TITLE

1.1 Form and Denomination

The Notes are issued in minimum denomination of US$200,000 and integral multiples of US$1,000 in excess thereof. A registered certificate (a "**Certificated Note**") will be issued to each Holder (as defined below) in respect of its registered holding of the Notes (unless Notes will be issued in global form). Each Certificated Note will be numbered serially with an identifying number which will be recorded on the relevant Certificated Note and in the register of Holders (the "**Register**") which the Company will procure to be kept by the Registrar. Upon issuance, the Notes will initially be represented by one or more fully registered global notes (the "**Global Notes**") and the depositary for such Global Notes (the "**Depositary**") shall be a clearing agency registered under the United States Securities Exchange Act of 1934, as amended (the "**Exchange Act**"). The Notes shall be tradeable only in principal amounts of at least US$200,000 and integral multiples of US$1,000 in excess thereof. For so long as the Notes are listed on the Singapore Exchange Securities Trading Limited (the "**SGX-ST**") and the rules of the SGX-ST so require, the Notes, if traded on the SGX-ST, will be traded in a minimum board lot size of S$200,000 (or its equivalent in foreign currencies). Each such Global Note may bear a legend relating to limitations on the transferability of such Global Note in such form as may be required by the Depository Trust Company ("**DTC**") unless the Company appoints a successor Depositary. Except in the limited circumstances described in Condition 1.3 below, owners of beneficial interests in the Global Notes will not be entitled to receive physical delivery of certificates representing their Notes. The laws of certain jurisdictions require that certain purchasers of the Notes take physical delivery of such Notes in certificated form. Accordingly, the ability of beneficial owners to own, transfer or pledge beneficial interests in the Global Notes may be limited by such laws.

1.2 Title

Title to the Notes passes only by registration in the Register. The holder of any Note will (except as otherwise required by law) be treated as its absolute owner for all purposes (regardless of any notice of ownership, trust or any interest or any writing on, or the theft or loss of, the Certificated Notes issued in respect of it) and no person will be liable for so treating the holder. In these Conditions, "**Holder**" and (in relation to a Note) "**holder**" and "**Noteholder**" means the person in whose name a Note is registered in the Register (or, in the case of a joint holding, the first named thereof).

1.3 Certificated Notes

If (i) at any time DTC notifies the Company in writing that it is unwilling or unable to continue as depositary or ceases to be a "clearing agency" under the Exchange Act, and a successor Depositary is not appointed by the Company within 90 days after the Company is notified by DTC or becomes aware of such condition, or (ii) the Notes have become immediately due and payable pursuant to Condition 10 below, the Company will issue Certificated Notes in registered form in exchange for the Global Notes representing such Notes.

For so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, in the event that the Global Note is exchanged for Certificated Notes, the Company will appoint and maintain a paying agent in Singapore (the "**Singapore Paying Agent**"), where the Certificated Notes may be presented or surrendered for payment or redemption. In addition, in the event that the Global Note is exchanged for Certificated Notes, an announcement of such exchange will be made by or on behalf of the Company through the SGX-ST and such announcement will include all material information with respect to the delivery of the Certificated Notes, including details of the Singapore Paying Agent.

2 STATUS

The Notes constitute direct, unconditional, unsubordinated and, subject to the provisions of Condition 3, unsecured obligations of the Company and shall at all times rank *pari passu* and without any preference or priority among themselves and, subject to the provisions of Condition 3, with all other present and future direct, unconditional, unsubordinated and unsecured obligations of the Company, except as may be required by mandatory provisions of law.

3 CERTAIN COVENANTS

3.1 Negative Pledge

So long as any of the Notes remains outstanding, the Company will not create or permit to be outstanding any mortgage, charge, lien, pledge or other security interest (each a "**Security Interest**") upon the whole or any part of its property, assets or revenues, present or future, to secure for the benefit of the holders of any International Investment Securities (as defined below):

(a) any payment of any sum owing in respect of any such International Investment Securities; or

(b) any payment under any guarantee or other like obligation of any such International Investment Securities; or

(c) any payment under any indemnity or other like obligation relating to any such International Investment Securities,

without in any such case at the same time, according to the Notes, either (i) the same Security Interest as is granted to or is outstanding in respect of such International Investment Securities or (ii) with respect to any guarantee, indemnity or other like obligation, such other arrangement (whether or not comprising a Security Interest) as shall be approved by an Extraordinary Resolution (as defined below).

3.2 Consolidation, Merger and Sale of Assets

The Company will not consolidate with, or merge or amalgamate into, or sell, transfer, lease or convey all or substantially all of its property or assets to any person, except as provided herein. The Company, without the consent of the holders of any of the Notes, may consolidate with, or merge into, or sell, transfer, lease or convey all or substantially all of its property as an entirety to any corporation or business entity organized under the laws of the Republic of Korea; *provided that* (a) any successor corporation or business entity expressly assumes the Company's obligations under the Notes and the Fiscal Agency Agreement (including the obligation to pay Additional Amounts under Condition 8), (b) immediately after giving effect to the transaction, no Event of Default and no event which, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing, (c) if, as a result of any such transaction, the properties or assets of the Company or any successor corporation or business entity would become subject to any Security Interest which would not be permitted by the Notes, the Company or such successor corporation or business entity, as the case may be, shall take such steps as shall be necessary to secure the Notes equally and ratably with (or prior to) all indebtedness secured thereby, and (d) the Company has delivered to the Fiscal Agent a certificate executed by a duly authorized officer of the Company and an opinion of counsel as to matters of law stating that such consolidation, merger, sale, transfer, lease or conveyance and, if any supplemental agreement(s) is/are required in connection with such transaction, such supplemental agreement(s) comply with the Fiscal Agency Agreement and the Notes and that all conditions precedent herein provided for relating to such transaction have been complied with. The Fiscal Agent shall be entitled to accept and conclusively rely upon such certificate and opinion (without further investigation or enquiry) as sufficient and conclusive evidence of such compliance and the Fiscal Agent shall be protected and shall have no liability to any holder or any person for so accepting and relying on such certificate or opinion.

3.3 Interpretation

For the purposes of these Conditions:

"**International Investment Securities**" means bonds, debentures, notes or investment securities of the Company which:

(a) either are by their terms payable, or confer a right to receive payment, in any currency other than Korean Won or are denominated in Korean Won and more than 50% of the aggregate principal amount thereof is initially distributed outside Korea by or with the authorization of the Company; and

(b) are, for the time being, quoted, listed, or ordinarily dealt in or traded on any stock exchange or over-the-counter or other securities market outside Korea.

4 INTEREST

4.1 Interest Payment Dates

The 2026 Notes will be issued in an initial aggregate principal amount of US$750,000,000 and will mature at a price equal to 100% of the principal amount on January 17, 2026 (the "**2026 Notes Maturity Date**"). The 2026 Notes will bear interest at a rate of 6.250% per annum from and including January 17, 2023 or from the most recent interest payment date to which interest has been paid or provided for.

The Green Notes will be issued in an initial aggregate principal amount of US$750,000,000 and will mature at a price equal to 100% of the principal amount on January 17, 2033 (the "**Green Notes Maturity Date**"). The Green Notes will bear interest at a rate of 6.500% per annum from and including January 17, 2023 or from the most recent interest payment date to which interest has been paid or provided for.

Interest on the Notes will be payable semi-annually in arrears on January 17 and July 17 of each year (each an "**Interest Payment Date**") with the first interest payment to be made on July 17, 2023.

4.2 Interest Accrual

Each Note will cease to bear interest from and including its due date for redemption unless, upon due presentation, payment of the principal in respect of the Note is improperly withheld or refused or unless default is otherwise made in respect of payment. In such event, interest will continue to accrue until whichever is the earlier of:

(a) the date on which all amounts due in respect of such Note have been paid; and

(b) five days after the date on which the full amount of the moneys payable in respect of such Notes has been received by the Fiscal Agent and notice to that effect has been given to the Noteholders in accordance with Condition 12.

4.3 Calculation of Broken Interest

When interest is required to be calculated in respect of a period of less than a full year, it shall be 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 number of days elapsed on the basis of a month of 30 days.

Interest in respect of any Note shall be calculated per US$1,000 in principal amount of the Notes (the "**Calculation Amount**"). The amount of interest payable per Calculation Amount for any period shall be equal to the product of the rate of interest specified above, the Calculation Amount and the day-count fraction for the relevant period, rounding the resulting figure to the nearest cent (half a cent being rounded upwards).

5 PAYMENTS

5.1 Payment

Payments in respect of each Note will be made by transfer to the registered account of the Holder and will be paid to the Holder shown on the Register at the close of business on the date (the "**record date**") that is the fifteenth day before the due date for such payments.

For the purposes of this Condition 5.1, a Holder's "**registered account**" means the U.S. dollar account maintained by or on behalf of it with a bank in the United States that processes payments in U.S. dollar, details of which appear on the Register at the close of business on the relevant record date, and a Holder's registered address means its address appearing on the Register at that time.

Where payment is to be made by transfer to a registered account, payment instructions (for value on the due date or, if that is not a Payment Business Day, for value the first following day which is a Payment Business Day) will be initiated on the due date for payment, or if that is not a Payment Business Day, on the next succeeding Payment Business Day, without any interest or payment in respect of such delay.

5.2 Agents

The names of the initial Agents and their specified offices are set out in the Fiscal Agency Agreement. The Company reserves the right under and in accordance with the terms of the Fiscal Agency Agreement at any time to remove any Agent, and to appoint other or further agents or a replacement Registrar, *provided that* it will at all times maintain (i) a Fiscal Agent, (ii) a Paying Agent, (iii) a Registrar, (iv) a Transfer Agent and (v) a Singapore Paying Agent (for so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, in the event that the Global Note is exchanged for Certificated Notes). Notice of any such removal or appointment and of any change in the specified office of any Agent will be given promptly by the Company to the Noteholders in accordance with Condition 12.

5.3 Payment subject to fiscal laws

All payments in respect of the Notes are subject in all cases to any applicable fiscal or other laws and regulations, but without prejudice to the provisions of Condition 8. No commissions or expenses shall be charged to the Noteholders in respect of such payments.

5.4 Payment date convention

If any Interest Payment Date or any of the 2026 Notes Maturity Date or the Green Notes Maturity Date would fall on a day that is not a Payment Business Day, that Interest Payment Date, the 2026 Notes Maturity Date or the Green Notes Maturity Date will be postponed to the following day that is a Payment Business Day, and no interest shall be payable in respect of any such delay.

5.5 Payment Business Day

In these Conditions, "**Payment Business Day**" means a day (other than a Saturday or Sunday) on which commercial banks and financial institutions are generally open for business in New York City, London, Seoul, the city where the specified office of the Paying Agent is located and (for so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST require the Company to maintain a Singapore Paying Agent) Singapore and, in the case of the surrender of a Certificated Note, in the place of the Transfer Agent or Registrar where the Certificated Note is surrendered.

6 TRANSFERS OF NOTES

6.1 Transfers

Subject as provided in Condition 6.2, a Note may be transferred by depositing the Certificated Note issued in respect of that Note, with the form of transfer on the back duly completed and signed, at the specified office of the Transfer Agent (or, in the case of a Note represented by a Global Note, delivery of a duly executed form of transfer as set forth in the Fiscal Agency Agreement), together with such evidence as the Registrar or the Transfer Agent may require to prove title to the Notes that are the subject of the transfer and the authority of the individuals who have executed the form of transfer. Legal title to the Notes will pass upon registration of such transfer in the Register.

All transfers of Notes and entries in the Register will be made subject to the terms concerning transfers of the Notes provided in the Fiscal Agency Agreement.

6.2 Closed Periods

If Certificated Notes are to be issued in exchange for the Global Note, no Noteholder may require the transfer of a Certificated Note to be registered (i) during the period of 15 days preceding the due date for any payment of principal of, or interest (if any) on, the Notes or (ii) after such Note has been selected or deposited for redemption pursuant to Condition 7.2 or 7.3.

6.3 Regulations

All transfers of Certificated Notes will be made subject to the detailed provisions concerning transfer of Notes set forth in Clause 4(b)(iv) of the Fiscal Agency Agreement. The provisions may be changed by the Company with the prior written approval of the Registrar.

7 REDEMPTION AND PURCHASE

7.1 Redemption at Maturity

Unless the 2026 Notes have been previously redeemed or repurchased and cancelled as provided below, the Company will redeem the 2026 Notes at 100% of their principal amount in U.S. dollars on the 2026 Notes Maturity Date. The 2026 Notes may be redeemed prior to that date only as provided in Conditions 7.2 and 7.3 below, but without prejudice to Condition 10.

Unless the Green Notes have been previously redeemed or repurchased and cancelled as provided below, the Company will redeem the Green Notes at 100% of their principal amount in U.S. dollars on the Green Notes Maturity Date. The Green Notes may be redeemed prior to that date only as provided in Conditions 7.2 and 7.3 below, but without prejudice to Condition 10.

7.2 Redemption for Taxation Reasons

At any time, the Company may, having given not less than 30 or more than 60 days' notice to the holders of the Notes (which notice shall be irrevocable and delivered in accordance with Condition 12), redeem the Notes in whole, but not in part, at 100% of their principal amount plus accrued and unpaid interest, if any, to the date fixed for redemption, *provided that* prior to the delivery of any notice of redemption pursuant to this Condition 7.2, the Company shall deliver to the Fiscal Agent (1) a certificate signed by an authorized officer stating that the obligation to pay Additional Amounts (as defined in Condition 8.1) is as a result of any change in, or amendment to, the laws or regulations of a Relevant Jurisdiction (as defined in Condition 8.2), or any change in the general application or official interpretation of such laws or regulations, which change or amendment is announced and becomes effective after the date of the original issuance of the Notes (or if the Relevant Jurisdiction became a Relevant Jurisdiction after the date of original issuance, after the date such jurisdiction became a Relevant Jurisdiction) and cannot be avoided by the Company taking reasonable measures available to it and (2) an opinion addressed to the Fiscal Agent by an independent law firm of recognized standing admitted to practice in the Relevant Jurisdiction to the effect that the Company has or will become obliged to pay such Additional Amounts as a result of a change or amendment referred to above, and the Fiscal Agent shall be entitled to accept and conclusively rely upon such certificate and opinion (without further investigation or enquiry) as sufficient and conclusive evidence of the conditions precedent referred to in this Condition 7.2, in which event it shall be conclusive and binding on the holders of the Notes and the Fiscal Agent shall be protected and shall have no liability to any holder or any person for so accepting and relying on such certificate or opinion.

7.3 Change of Control Put Right

If a Change of Control Triggering Event occurs, Noteholders will have the right (the "**Change of Control Put Right**") to require the Company to redeem all or any part (equal to US$200,000 or an integral multiple of US$1,000 in excess thereof) of their Notes pursuant to the offer described below (the "**Change of Control Offer**"). In the Change of Control Offer, the Company will be required to offer payment in cash equal to 100% of the aggregate principal amount of the Notes redeemed plus accrued and unpaid interest, if any, on the Notes redeemed, to the date of redemption (the "**Change of Control Payment**"). Within 30 days following any Change of Control Triggering Event, the Company will provide notice to the Noteholders, with a copy to the Agents, describing the events that constitute the Change of Control Triggering Event and offering to redeem the Notes on the date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date of such notice (the "**Change of Control Payment Date**"), pursuant to the provisions of this Condition 7.3. To exercise the Change of Control Put Right, the Holder of the relevant Note must deposit at the specified office of the Fiscal Agent a duly completed and signed Change of Control Put Notice (as defined in the Fiscal Agency Agreement), in the form for the time being current, obtainable from the specified office of the Fiscal Agent during usual business hours (being between 9:00 am to 3:00 pm), together with, in the case of Certificated Notes, the Certificate evidencing the Note to be redeemed, by no later than 10 days prior to the Change of Control Payment Date. To the extent that the provisions of any securities laws (including, without limitation, the Financial Investment Services and Capital Markets Act of Korea) or regulations conflict with this Condition 7.3, the Company will be required to comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under this Condition 7.3 by complying with such laws and regulations.

On the Change of Control Payment Date, the Company will be required, to the extent lawful, to:

(a) accept for redemption and payment all Notes or portions of Notes properly tendered pursuant to a duly completed Change of Control Put Notice; and

(b) deposit with the Fiscal Agent an amount equal to the Change of Control Payment in respect of all Notes or portions of Notes properly tendered.

For so long as any Note remains outstanding, the Company shall use commercially reasonable efforts to cause at least two Rating Agencies to maintain ratings of the Notes.

For the purposes of this Condition 7.3:

"**Change of Control**" means the occurrence of any of the following: (1) the direct or indirect sale, transfer, conveyance or other disposition, in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its subsidiaries taken as a whole to any person other than the Company or one of its subsidiaries (other than for the purposes of, or pursuant to and followed by, a consolidation, amalgamation, merger or reorganization permitted by Condition 3.2) or (2) if at any time SK Square Co., Ltd. and its affiliates cease to hold at least 20% of the Company's outstanding shares.

"**Change of Control Triggering Event**" means the occurrence of both a Change of Control and a Rating Event.

"**Moody's**" means Moody's Investors Service, Inc.

"**Rating Agencies**" means (1) each of Moody's and S&P and (2) if any of Moody's or S&P ceases to rate the Notes or fails to make a rating of the Notes publicly available for reasons outside of the Company's control, a "nationally recognized statistical rating organization" recognized by the United States Securities and Exchange Commission, selected by the Company (as certified by a resolution of the Company's board of directors) as a replacement agency for Moody's or S&P (a "**Replacement Agency**"), or both of them, as the case may be.

"**Rating Event**" means the Notes are rated (1) below an investment grade credit rating (Ba1, or equivalent, or worse) by Moody's (or a Replacement Agency therefor) or (2) below an investment grade credit rating (BB+, or equivalent, or worse) by S&P (or a Replacement Agency therefor) on any date from the date of the public announcement by the Company of an arrangement that could result in a Change of Control until the end of the 60-day period following public announcement by the Company of the occurrence of the Change of Control (which 60-day period shall be extended so long as the rating of the Notes is under publicly announced consideration for possible downgrade by any of the Rating Agencies).

"**S&P**" means S&P Global Ratings, a division of S&P Global, Inc.

None of the Agents shall have any duty or obligation to verify or be required to monitor or to take any steps to ascertain whether a Change of Control Triggering Event or any event which could lead to the occurrence of a Change of Control Triggering Event has occurred or whether this Condition 7.3 conflicts with any securities laws or regulations, and shall not be liable to any person for not doing so.

*The definition of "**Change of Control**" includes a phrase relating to the sale, transfer, conveyance or other disposition of "all or substantially all" of the property or assets of the Company and its subsidiaries taken as a whole. Although there is a developing body of case law interpreting the phrase "substantially all", there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a Holder to require the Company to repurchase Notes as a result of a sale, transfer, conveyance or other disposition of less than all of the property or assets of the Company and its subsidiaries taken as a whole to another person or group may be uncertain.*

7.4 Purchases

The Company or any of its subsidiaries may at any time and from time to time repurchase Notes in the open market or otherwise at any price. Such Notes may be held by the Company, resold or surrendered to the Registrar for cancellation. If purchases are made by tender, tenders must be available to all Noteholders alike.

7.5 Cancellations

All Notes that are redeemed, repurchased or converted and surrendered to the Registrar for cancellation shall forthwith be cancelled. Notes cancelled may not be reissued or resold.

7.6 Redemption Procedures

In the event that the Company is required to deliver a notice to the holders of the Notes under this Condition 7, the Company shall provide, or procure the provision by the Fiscal Agent of, the notice to each holder of the Notes in accordance with Condition 12 and the provisions of the Fiscal Agency Agreement, which notice shall state, to the extent applicable:

(a) the date fixed for redemption;

(b) the applicable redemption price of a Note on the redemption date; and

(c) the names and addresses of all Paying Agents and the Registrar.

7.7 Notices Final

Upon the expiry of any notice as is referred to in Condition 7.2 or 7.3 above, the Company shall be bound to redeem the Notes to which the notice refers in accordance with the terms of such Condition.

8 TAXATION

8.1 Additional Amounts

All payments of principal and interest in respect of the Notes, including any Additional Amounts (as defined below), by or on behalf of the Company shall be made free and clear of and without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature ("**Taxes**") imposed, levied, collected, withheld or assessed by or on behalf of the Relevant Jurisdiction, as defined in Condition 8.2 below, except as required by applicable law. In that event, the Company will, subject to the exceptions and limitations set forth below, pay to a holder of any Note such additional amounts (the "**Additional Amounts**") as may be necessary in order that every net payment by the Company or a Paying Agent of the principal of and interest on the Note and any other amounts payable on the Note after withholding or deduction for or on account of any present or future tax, duty, assessment or governmental charge imposed or levied by a Relevant Jurisdiction, as defined in Condition 8.2 below, will not be less than the amount provided for in the Note to be then due and payable under the Notes.

However, the obligation to pay Additional Amounts shall not apply:

(a) to the holder or beneficial owner of the Notes who would not be liable for or subject to such deduction or withholding by making a declaration of non-residence or other similar claim for exemption to the relevant tax authority if, after having been requested in writing by the Company to make such a declaration or claim, such holder or beneficial owner of the Notes fails to do so within 30 days; or

(b) to the holder or beneficial owner of the Notes who is subject to Taxes in respect of the Notes by reason of the existence of any present or former connection between the holder (or between a fiduciary, settlor, beneficiary, member or shareholder of the holder, if the holder is an estate, a trust, a partnership, a limited liability company or a corporation) and a Relevant Jurisdiction, other than merely holding a Note or receiving a payment in respect of a Note, including, without limitation, the holder (or such fiduciary, settlor, beneficiary, member or shareholder) being or having been a citizen or resident of a Relevant Jurisdiction or being or having been engaged in a trade or business or present in a Relevant Jurisdiction or having, or having had, a permanent establishment in a Relevant Jurisdiction; or

(c) to the holder or beneficial owner of the Notes who presents the relevant Notes, where presentation is required, for payment on a date more than 30 days after the Relevant Date; or

(d) to any estate, inheritance, gift, sales, transfer, capital gains or personal property tax or any similar tax, duty, assessment or governmental charge; or

(e) to any tax, duty, assessment or other governmental charge that is payable otherwise than by withholding or deduction from payments on or in respect of any Note; or

(f) to any tax, duty, assessment or other governmental charge that would not have been imposed but for the failure of the holder or beneficial owner to comply, upon written request by the Company addressed to the holder, with certification, information or other reporting requirements concerning the nationality, residence or identity of the holder or beneficial owner of that Note, if compliance is required by statute or by regulation of a Relevant Jurisdiction as a precondition to relief or exemption from the tax, duty, assessment or other governmental charge; or

(g) to any tax, duty, assessment or other governmental charge required to be withheld by any Paying Agent from any payment of the principal of, or interest on, any Note, to the extent such tax, duty, assessment or other governmental charge results from the presentation (where presentation is required) of any Note for payment and the payment can be made without such withholding or deduction by the presentation of the Note for payment by at least one other Paying Agent; or

(h) to any combination of the items listed above.

Nor will Additional Amounts be paid with respect to any payment on a Note to a holder who is a fiduciary, a partnership, a limited liability company or other than the sole beneficial owner of that payment to the extent that payment would be required by the laws of a Relevant Jurisdiction to be included in the income, for tax purposes, of a beneficiary or settlor with respect to the fiduciary, a member of that partnership, an interest holder in a limited liability company or a beneficial owner who would not have been entitled to the Additional Amounts had that beneficiary, settlor, member, interest holder or beneficial owner been the holder.

References in these Conditions to payments in respect of the Notes shall be deemed to refer to any Additional Amounts that may be payable in respect thereof under this Condition 8.1.

The Agent shall in no event be responsible for paying any tax, duty, charges, withholding or other payment referred to in this Condition 8 or for determining whether such amounts are payable or the amount thereof, and shall not be responsible or liable for any failure by the Company or the Noteholders or any other person to pay such tax, duty, charges, withholding or other payment or be responsible to provide any notice or information in relation to the Notes in connection with payment of such tax, duty, charges, withholding or other payment.

Notwithstanding any other provision of these Conditions, any amounts to be paid on the Notes by or on behalf of the Company will be paid net of any deduction or withholding imposed or required pursuant to an agreement described in Section 1471(b) of the U.S. Internal Revenue Code of 1986, as amended (the "**Code**"), or otherwise imposed pursuant to Sections 1471 through 1474 of the Code (or any regulations thereunder or official interpretations thereof) or an intergovernmental agreement between the United States and another jurisdiction facilitating the implementation thereof (or any fiscal or regulatory legislation, rules or practices implementing such an intergovernmental agreement) (any such withholding or deduction, a "**FATCA Withholding**"). Neither the Company nor any other person will be required to pay any additional amounts in respect of FATCA Withholding.

8.2 Interpretation

For the purposes of these Conditions:

(a) "**Relevant Date**" in relation to any Notes means (i) the due date for payment in respect thereof or (ii) if the full amount of the moneys payable on such due date has not been received by the Fiscal Agent or the Paying Agent on or prior to such due date, the date on which notice is duly given to the holders of the Notes that such moneys have been so received; and

(b) "**Relevant Jurisdiction**" means the Republic of Korea or any political subdivision or any authority thereof or therein having power to tax or any other jurisdiction or any political subdivision or any authority thereof or therein having power to tax to which the Company or any successor becomes subject in respect of payments made by it of principal and interest on the Notes (including, without limitation, any jurisdiction of incorporation, organization, tax residency and jurisdiction in which it is doing business).

9 PRESCRIPTION

Claims against the Company in respect of the payment of principal and interest on the Notes shall be prescribed unless made within 10 years (in the case of principal) and five years (in the case of interest) from the Relevant Date (as defined in Condition 8).

10 EVENTS OF DEFAULT

10.1 Events of Default

The holder of any Note may give written notice addressed to the Company and delivered to the Company with a copy to the Fiscal Agent that the Note is, and it shall accordingly forthwith become, immediately due and repayable at its principal amount, together with interest accrued to the date of repayment, if any of the following events (an "**Event of Default**") shall have occurred and be continuing:

(a) the Company fails to pay the principal or interest, if any, on, any of the Notes, and in the case of principal, the failure continues for a period of seven days and in the case of interest, the failure continues for a period of 30 days; or

(b) the Company fails to perform or observe any of its other obligations under these Conditions or in the Fiscal Agency Agreement and the failure continues for a period of 60 days following the service by any Noteholder on the Company of a notice requiring the same to be remedied; or

(c) if (i) any Indebtedness for Borrowed Money (as defined below) of the Company becomes due and repayable prematurely by reason of an event of default (however described); (ii) the Company fails to make any payment in respect of any Indebtedness for Borrowed Money on the due date for payment; (iii) any security given by the Company for any Indebtedness for Borrowed Money becomes enforceable or proceedings are commenced to enforce any security; or (iv) default is made by the Company in making any payment due under any guarantee and/or indemnity given by it in relation to any Indebtedness for Borrowed Money of any other person; *provided, that* no event described in this Condition 10.1(c) shall constitute an Event of Default unless the relevant amount of Indebtedness for Borrowed Money or other relative liability due and unpaid, either alone or when aggregated (without duplication) with other amounts of Indebtedness for Borrowed Money and/or other liabilities due and unpaid relative to all (if any) other events specified in (i) through (iv) above which have occurred and are continuing, amounts to at least US$30,000,000 (or its equivalent in any other currency); or

(d) if any order is made by any competent court or resolution is passed for the winding up or dissolution of the Company; or

(e) the Company ceases or threatens to cease to carry on the whole or a substantial part of its business save for the purposes of, or pursuant to and followed by, a consolidation, amalgamation, merger or reorganization permitted by Condition 3.2; or

(f) if (i) proceedings are initiated against the Company under any applicable liquidation, insolvency, composition, reorganization or other similar laws or an application is made (or documents filed with a court) for the appointment of an administrative or other receiver, manager, administrator or other similar official, or an administrative or other receiver, manager, administrator or other similar official is appointed, in relation to the Company or, as the case may be, in relation to the whole or any part of its undertaking or assets or an encumbrancer takes possession of the whole or any part of its undertaking or assets, or a distress, execution, attachment, sequestration or other process is levied, enforced upon, sued out or put in force against the whole or any part of its undertaking or assets and (ii) in any such case (other than the appointment of an administrator), unless initiated by the relevant company, is not discharged within 60 days; or

(g) if the Company (or any of its respective directors or shareholders) initiates or consents to juridical proceedings relating to itself under any applicable liquidation, insolvency, composition, reorganization or other similar laws (including the obtaining of a moratorium) or makes a conveyance or assignment for the benefit of, or enters into any composition or other arrangement with, its creditors generally (or any class of its creditors) or any meeting is convened to consider a proposal for an arrangement or composition with its creditors generally (or any class of its creditors); or

(h) any event occurs which under the laws of the Republic of Korea has an analogous effect to any of the events referred to in (a) through (g) above.

10.2 Interpretation

For the purposes of these Conditions:

"**Indebtedness for Borrowed Money**" means any indebtedness (whether being principal, premium, interest or other amounts) for or in respect of any notes, bonds, debentures, debenture stock, loan stock or other securities or any borrowed money or any liability under or in respect of any acceptance or acceptance credit.

11 REPLACEMENT OF CERTIFICATES

If any Certificated Note is lost, stolen, mutilated, defaced or destroyed it may be replaced at the specified office of the Registrar or such Transfer Agent upon payment by the claimant of the expenses incurred in connection with such replacement and on such terms as to evidence, security, indemnity, prefunding and otherwise as the Company, Registrar or Transfer Agent may require. Mutilated or defaced Certificated Notes must be surrendered before replacements will be issued.

12 NOTICES

All notices to holders of the Notes shall be validly given if mailed to them at their respective addresses in the record of holders of the Notes maintained by the Registrar and deemed to have been given on the fifth weekday (being a day other than a Saturday or a Sunday) after the date of mailing and by the participants, or published in a leading newspaper having general circulation in Asia (which is expected to be the *Asian Wall Street Journal*). Notwithstanding the foregoing, so long as the Notes are represented by the Global Note and the Global Note is held on behalf of DTC, notice to Noteholders may be given by delivery of the relevant notice to DTC, for communication by them to entitled accountholders in substitution for notification as required by the foregoing sentence. The Company shall also ensure that notices are duly given or published in a manner which complies with the rules and regulations of any stock exchange on which the Notes are for the time being listed. Any such notice shall be deemed to have been given on the seventh day after being so mailed or on the date of such publication.

13 MEETINGS OF NOTEHOLDERS, MODIFICATION AND WAIVER

13.1 Meetings of Noteholders

The Fiscal Agency Agreement contains provisions for convening meetings of the Noteholders to consider any matter affecting their interests, including the modification by Extraordinary Resolution (as defined below) of any of these Conditions or any of the provisions of the Fiscal Agency Agreement. Such a meeting may be convened by Noteholders holding not less than 10% of the principal amount of the Notes then outstanding. The quorum at any meeting for passing an Extraordinary Resolution will be one or more persons present holding or representing more than 50% of the principal amount of the Notes then outstanding, or, at any adjourned meeting, one or more persons present holding or representing more than 25% of the principal amount of the Notes then outstanding; *provided, however*, that no such meeting shall consider the modification, amendment or waiver to the Fiscal Agency Agreement or any Note to (i) change the stated maturity of the Notes or the scheduled dates for payment of principal of or interest on any Note; (ii) reduce the principal of or interest on any such Note; (iii) change the currency of payment of the principal of or interest on such Note; or (iv) reduce the above-stated percentage of the aggregate principal amount of the Notes outstanding or reduce the quorum requirements or the percentage of votes required for the taking of any action, in which case the necessary quorum for passing an Extraordinary Resolution will be one or more persons present holding or representing not less than two-thirds, or at any adjourned meeting not less than one-third, of the principal amount of the Notes for the time being outstanding. An Extraordinary Resolution passed at any meeting of the Noteholders will be binding on all Noteholders, whether or not they are present at the meeting.

"**Extraordinary Resolution**" means a resolution duly passed by either (i) a majority in aggregate principal amount of the Notes then outstanding pursuant to a written resolution of the Noteholders or (ii) 75% in aggregate principal amount of the Notes represented and voting at a duly convened meeting of the Noteholders.

13.2 Modification

The Company shall only permit any modification, without the consent of the Noteholders, to these Conditions or any of the provisions of the Fiscal Agency Agreement either (i) for the purpose of curing any ambiguity or of curing, correcting or supplementing any manifest or proven error or any other defective provision contained herein or therein or (ii) in any other manner which is not materially prejudicial to the interests of the Noteholders. Any determination as to prejudice applying to the interests of the Noteholders pursuant to this Condition shall be made by the Company and none of the Agents shall have any responsibility or liability whatsoever with respect to such determination. Any modification shall be binding on the Noteholders and shall be notified by the Company to the Noteholders as soon as practicable thereafter in accordance with Condition 12.

14 FURTHER ISSUANCES

The Company may from time to time, without notice to or the consent of the holders of the Notes, create and issue further debt securities ranking *pari passu* with the Notes in all respects (or in all respects except for the payment of interest accruing prior to the issue date of the additional Notes or except for the first payment of interest following the issue date of the additional Notes). The Company may consolidate such further debt securities with the outstanding Notes to form a single series to the extent permitted under applicable law. References in these Conditions to the Notes include (unless the context requires otherwise) any other securities issued pursuant to this Condition 14 and forming a single series with the Notes, provided, however, that any additional debt securities shall be issued under a separate CUSIP, ISIN and/or other identifying number, as applicable, unless the additional debt securities are issued pursuant to a "qualified reopening" of the original series, are otherwise treated as part of the same "issue" of debt instruments as the original series or are issued with less than a *de minimis* amount of original issue discount, in each case for U.S. federal income tax purposes.

15 GOVERNING LAW AND SUBMISSION TO JURISDICTION

15.1 Governing Law

The Fiscal Agency Agreement and the Notes are governed by, and shall be construed in accordance with, the laws of the State of New York.

15.2 Jurisdiction

The Company agrees that any legal suit, action or proceeding arising out of or based upon the Fiscal Agency Agreement or the Notes may be instituted in any state or federal court in the Borough of Manhattan, the State and City of New York.

The Company, to the fullest extent it is permissible to do so under applicable law, (a) waives any objection which it may have now or hereafter to the laying of the venue of any such suit, action or proceeding in any such court and (b) irrevocably submits to the non-exclusive jurisdiction of any such court in any suit, action or proceeding.

15.3 Appointment of Process Agent

The Company has agreed to irrevocably appoint SK hynix America Inc., located at 3101 North 1st Street, San Jose, CA 95134, as its authorized agent in the State of New York to receive service of process in any proceedings in the State of New York based on any of the Notes or the Fiscal Agency Agreement. The Company agrees that in the event of such agent ceasing so to act it will appoint such other person as its agent for that purpose.

16 Currency Indemnity

The Company's obligations under the Notes to make all payments in U.S. dollars will not be satisfied by any payment, recovery or any other realization of proceeds in any currency other than the U.S. dollar. If pursuant to any such judgment, conversion shall be made on a date (the "**Substitute Date**") other than the date of entry of judgment (the "**Judgment Date**") and there shall occur a change between the market exchange rate for the U.S. dollar as in effect on the Substitute Date and the market exchange rate as in effect on the Judgment Date, the Company agrees to pay such Additional Amounts (if any) in U.S. dollars as may be necessary to ensure that the amount paid is equal to the amount in such other currency or currency unit which, when converted at the market exchange rate as in effect on the Judgment Date, is the amount due under any Notes. To the extent permitted by applicable law, any amount due from the Company under this Condition 16 shall be due as a separate debt and is not to be affected by or merged into any judgment being obtained for any other sums due in respect of any Notes. In no event, however, shall the Company be required to pay more in U.S. dollars due under the Notes at the market exchange rate as in effect on the Judgment Date than the amount of U.S. dollars stated to be due under the Notes so that in any event the Company's obligations under the Notes will be effectively maintained as obligations in U.S. dollars and the Company shall be entitled to withhold (or be reimbursed for, as the case may be) any excess of the amount actually realized upon any such conversion on the Substitute Date over the amount due on the Judgment Date.

TERMS AND CONDITIONS OF THE SUSTAINABILITY-LINKED NOTES

The following is a description of the Terms and Conditions of the Notes (as defined below), which (subject to modification and except for the paragraphs in italics) will be endorsed on the Notes in definitive form (if issued).

*The Sustainability-Linked Notes (the "**Notes**") will be issued by SK hynix Inc. (the "**Company**") (or any successor to the Company) subject to and with the benefit of a Fiscal Agency Agreement dated, 2023 (such agreement as amended and/or supplemented and/or restated from time to time, the "**Fiscal Agency Agreement**") made among the Company, Citicorp International Limited as the fiscal agent (the "**Fiscal Agent**") and Citibank, N.A., London Branch as paying agent (the "**Paying Agent**"), registrar (the "**Registrar**") and transfer agent (the "**Transfer Agent**") and any other agent or agents appointed from time to time with respect to the Notes.*

*The statements in these Terms and Conditions include summaries of, and are subject to, the detailed provisions of and definitions in the Fiscal Agency Agreement. Copies of the Fiscal Agency Agreement are available for inspection during normal business hours (being between 9:00 a.m. to 3:00 p.m.) by the holders of the Notes following prior written request and satisfactory proof of holding at the specified office of the Paying Agent or any other paying agent that the Company may appoint, as may be required from time to time (references herein to "**Paying Agents**" shall refer to the Paying Agent and any paying agents so appointed). The holders are entitled to the benefit of, are bound by, and are deemed to have notice of, all the provisions of the Fiscal Agency Agreement. In these Terms and Conditions, references to the Agents (as defined below) shall include any successor appointed under the Fiscal Agency Agreement, and references to the Company shall include any successor company or business entity succeeding to obligations under the Notes.*

*In acting under the Fiscal Agency Agreement, the Paying Agent, the Registrar, the Transfer Agent and any other agent or agents appointed by the Company (the "**Agents**" and each an "**Agent**") thereunder are acting solely as agents for the Company and do not assume any obligation or relationship of agency or trust for or with the Noteholders.*

1 FORM, DENOMINATION AND TITLE

1.1 Form and Denomination

The Notes are issued in minimum denomination of US$200,000 and integral multiples of US$1,000 in excess thereof. A registered certificate (a "**Certificated Note**") will be issued to each Holder (as defined below) in respect of its registered holding of the Notes (unless Notes will be issued in global form). Each Certificated Note will be numbered serially with an identifying number which will be recorded on the relevant Certificated Note and in the register of Holders (the "**Register**") which the Company will procure to be kept by the Registrar. Upon issuance, the Notes will initially be represented by one or more fully registered global notes (the "**Global Notes**") and the depositary for such Global Notes (the "**Depositary**") shall be a clearing agency registered under the United States Securities Exchange Act of 1934, as amended (the "**Exchange Act**"). The Notes shall be tradeable only in principal amounts of at least US$200,000 and integral multiples of US$1,000 in excess thereof. For so long as the Notes are listed on the Singapore Exchange Securities Trading Limited (the "**SGX-ST**") and the rules of the SGX-ST so require, the Notes, if traded on the SGX-ST, will be traded in a minimum board lot size of S$200,000 (or its equivalent in foreign currencies). Each such Global Note may bear a legend relating to limitations on the transferability of such Global Note in such form as may be required by the Depository Trust Company ("**DTC**") unless the Company appoints a successor Depositary. Except in the limited circumstances described in Condition 1.3 below, owners of beneficial interests in the Global Notes will not be entitled to receive physical delivery of certificates representing their Notes. The laws of certain jurisdictions require that certain purchasers of the Notes take physical delivery of such Notes in certificated form. Accordingly, the ability of beneficial owners to own, transfer or pledge beneficial interests in the Global Notes may be limited by such laws.

1.2 Title

Title to the Notes passes only by registration in the Register. The holder of any Note will (except as otherwise required by law) be treated as its absolute owner for all purposes (regardless of any notice of ownership, trust or any interest or any writing on, or the theft or loss of, the Certificated Notes issued in respect of it) and no person will be liable for so treating the holder. In these Conditions, "**Holder**" and (in relation to a Note) "**holder**" and "**Noteholder**" means the person in whose name a Note is registered in the Register (or, in the case of a joint holding, the first named thereof).

1.3 Certificated Notes

If (i) at any time DTC notifies the Company in writing that it is unwilling or unable to continue as depositary or ceases to be a "clearing agency" under the Exchange Act, and a successor Depositary is not appointed by the Company within 90 days after the Company is notified by DTC or becomes aware of such condition, or (ii) the Notes have become immediately due and payable pursuant to Condition 10 below, the Company will issue Certificated Notes in registered form in exchange for the Global Notes representing such Notes.

For so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, in the event that the Global Note is exchanged for Certificated Notes, the Company will appoint and maintain a paying agent in Singapore (the "**Singapore Paying Agent**"), where the Certificated Notes may be presented or surrendered for payment or redemption. In addition, in the event that the Global Note is exchanged for Certificated Notes, an announcement of such exchange will be made by or on behalf of the Company through the SGX-ST and such announcement will include all material information with respect to the delivery of the Certificated Notes, including details of the Singapore Paying Agent.

2 STATUS

The Notes constitute direct, unconditional, unsubordinated and, subject to the provisions of Condition 3, unsecured obligations of the Company and shall at all times rank *pari passu* and without any preference or priority among themselves and, subject to the provisions of Condition 3, with all other present and future direct, unconditional, unsubordinated and unsecured obligations of the Company, except as may be required by mandatory provisions of law.

3 CERTAIN COVENANTS

3.1 Negative Pledge

So long as any of the Notes remains outstanding, the Company will not create or permit to be outstanding any mortgage, charge, lien, pledge or other security interest (each a "**Security Interest**") upon the whole or any part of its property, assets or revenues, present or future, to secure for the benefit of the holders of any International Investment Securities (as defined below):

(a) any payment of any sum owing in respect of any such International Investment Securities; or

(b) any payment under any guarantee or other like obligation of any such International Investment Securities; or

(c) any payment under any indemnity or other like obligation relating to any such International Investment Securities,

without in any such case at the same time, according to the Notes, either (i) the same Security Interest as is granted to or is outstanding in respect of such International Investment Securities or (ii) with respect to any guarantee, indemnity or other like obligation, such other arrangement (whether or not comprising a Security Interest) as shall be approved by an Extraordinary Resolution (as defined below).

3.2 Consolidation, Merger and Sale of Assets

The Company will not consolidate with, or merge or amalgamate into, or sell, transfer, lease or convey all or substantially all of its property or assets to any person, except as provided herein. The Company, without the consent of the holders of any of the Notes, may consolidate with, or merge into, or sell, transfer, lease or convey all or substantially all of its property as an entirety to any corporation or business entity organized under the laws of the Republic of Korea; *provided that* (a) any successor corporation or business entity expressly assumes the Company's obligations under the Notes and the Fiscal Agency Agreement (including the obligation to pay Additional Amounts under Condition 8), (b) immediately after giving effect to the transaction, no Event of Default and no event which, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing, (c) if, as a result of any such transaction, the properties or assets of the Company or any successor corporation or business entity would become subject to any Security Interest which would not be permitted by the Notes, the Company or such successor corporation or business entity, as the case may be, shall take such steps as shall be necessary to secure the Notes equally and ratably with (or prior to) all indebtedness secured thereby, and (d) the Company has delivered to the Fiscal Agent a certificate executed by a duly authorized officer of the Company and an opinion of counsel as to matters of law stating that such consolidation, merger, sale, transfer, lease or conveyance and, if any supplemental agreement(s) is/are required in connection with such transaction, such supplemental agreement(s) comply with the Fiscal Agency Agreement and the Notes and that all conditions precedent herein provided for relating to such transaction have been complied with. The Fiscal Agent shall be entitled to accept and conclusively rely upon such certificate and opinion (without further investigation or enquiry) as sufficient and conclusive evidence of such compliance and the Fiscal Agent shall be protected and shall have no liability to any holder or any person for so accepting and relying on such certificate or opinion.

3.3 Interpretation

For the purposes of these Conditions:

"**International Investment Securities**" means bonds, debentures, notes or investment securities of the Company which:

(a) either are by their terms payable, or confer a right to receive payment, in any currency other than Korean Won or are denominated in Korean Won and more than 50% of the aggregate principal amount thereof is initially distributed outside Korea by or with the authorization of the Company; and

(b) are, for the time being, quoted, listed, or ordinarily dealt in or traded on any stock exchange or over-the-counter or other securities market outside Korea.

4 INTEREST

4.1 Interest Payment Dates

The Notes will be issued in an initial aggregate principal amount of US$1,000,000,000 and will mature at a price equal to 100% of the principal amount on January 17, 2028 (the "**Maturity Date**"). The Notes will bear interest at a rate of 6.375% per annum (the "**Rate of Interest**") from and including January 17, 2023 or from the most recent interest payment date to which interest has been paid or provided for. Interest on the Notes will be payable semi-annually in arrears on January 17 and July 17 of each year (each an "**Interest Payment Date**") with the first interest payment to be made on July 17, 2023.

4.2 Interest Rate Adjustment upon Occurrence of Trigger Event

4.2.1 Upon the occurrence of the Trigger Event, the Rate of Interest will increase by 0.75% per annum with effect from (and including) the Coupon Reset Date to (but excluding) the date of redemption of the Notes. If, following an increase in the Rate of Interest after the Trigger Event, the Company achieves the Sustainability Performance Target and the Trigger Event is no longer continuing, the Rate of Interest will remain unchanged and there will not be any decrease to the Rate of Interest.

4.2.2 Any increase in the Rate of Interest pursuant to Condition 4.2.1 shall be notified by the Company to the Noteholders (in accordance with Condition 12) and the Fiscal Agent in writing no later than ten calendar days following the occurrence of the Trigger Event. Any determinations of the External Verifier in the calculation of the Sustainability Performance Target shall (in the absence of manifest error) be final and binding upon all parties and the Noteholders.

4.2.3 In the event of any Recalculation Event, the Sustainability Performance Target may be recalculated in good faith by the Company to reflect such change, provided that the External Verifier has confirmed that the proposed revision is consistent with the initial level of ambition of the Sustainability Performance Target taking into account the Recalculation Event. Each Noteholder accepts and agrees not to be consulted in respect of such changes. Any such change and the resulting recalculation to the Sustainability Performance Target will be communicated as soon as reasonably practicable by the Company to the Fiscal Agent and notified to the Noteholders in accordance with Condition 12. Any other changes to the Sustainability Performance Target will be made only with the prior approval of the Noteholders.

Sustainability Definitions:

"**Baseline**" means the Company's GHG emissions performance for the year ended December 31, 2020 published in the Sustainability-Linked Financing Framework, or 9,552 tCO2eq per unit of production (100 million gigabit);

"**Coupon Reset Date**" means the Interest Payment Date falling on July 17, 2027;

"**External Review Report**" means an independent external review report in relation to the Notes to be issued by the External Verifier for the year ended 31 December 2026 in accordance with the Sustainability-Linked Bond Principles 2020 published by the International Capital Market Association;

"**External Verifier**" means a qualified provider of third-party assurance or attestation services appointed by the Company to review the Company's statement of GHG emissions;

"**Sustainability-Linked Financing Framework**" means the Sustainability-Linked Financing Framework adopted by the Company in December 2022;

"**Recalculation Event**" means any exceptional events which occurs between the issue date of the Notes and the Target Observation Date (i) in the Company's perimeter (due to an acquisition, a merger or a demerger or other restructuring), an amalgamation, a consolidation or other form of reorganisation with similar effect, a spin-off, a disposal or a sale of assets, or (ii) a material change of market practice and/or relevant market standards, which, individually or in aggregate, has a significant impact on the Sustainability Performance Target or the Baseline;

"**Sustainability Performance Target**" means reducing direct (Scope 1) and indirect (Scope 2) GHG emissions intensity by a minimum of 57% compared to the Baseline (calculated on the same basis as the Company's scope of calculation of the Baseline using the Company's GHG emissions performance for the year 2026) by the Target Observation Date, calculation and summary of which will be published on the official website of the Company (https://www.skhynix.com) on or before the Verification Date. Such percentage is subject to verification by the External Verifier as set out in the Verification Assurance Confirmation;

"**Target Observation Date**" means December 31, 2026;

"**Trigger Event**" will be deemed to occur if the Company does not achieve the Sustainability Performance Target on or before the Target Observation Date as determined by the relevant External Verifier and confirmed in the Verification Assurance Confirmation;

"**Verification Assurance Confirmation**" means a verification assurance confirmation provided by the External Verifier, which shall be included in the appendix of the External Review Report and which shall confirm whether the Company has achieved the Sustainability Performance Target as of the Target Observation Date, and which shall be made available on or before the Verification Date on the official website of the Company (https://www.skhynix.com); and

"**Verification Date**" means June 28, 2027.

4.3 Interest Accrual

Each Note will cease to bear interest from and including its due date for redemption unless, upon due presentation, payment of the principal in respect of the Note is improperly withheld or refused or unless default is otherwise made in respect of payment. In such event, interest will continue to accrue until whichever is the earlier of:

(a) the date on which all amounts due in respect of such Note have been paid; and

(b) five days after the date on which the full amount of the moneys payable in respect of such Notes has been received by the Fiscal Agent and notice to that effect has been given to the Noteholders in accordance with Condition 12.

4.4 Calculation of Broken Interest

When interest is required to be calculated in respect of a period of less than a full year, it shall be 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 number of days elapsed on the basis of a month of 30 days.

Interest in respect of any Note shall be calculated per US$1,000 in principal amount of the Notes (the "**Calculation Amount**"). The amount of interest payable per Calculation Amount for any period shall be equal to the product of the rate of interest specified above, the Calculation Amount and the day-count fraction for the relevant period, rounding the resulting figure to the nearest cent (half a cent being rounded upwards).

5 PAYMENTS

5.1 Payment

Payments in respect of each Note will be made by transfer to the registered account of the Holder and will be paid to the Holder shown on the Register at the close of business on the date (the "**record date**") that is the fifteenth day before the due date for such payments.

For the purposes of this Condition 5.1, a Holder's "**registered account**" means the U.S. dollar account maintained by or on behalf of it with a bank in the United States that processes payments in U.S. dollar, details of which appear on the Register at the close of business on the relevant record date, and a Holder's registered address means its address appearing on the Register at that time.

Where payment is to be made by transfer to a registered account, payment instructions (for value on the due date or, if that is not a Payment Business Day, for value the first following day which is a Payment Business Day) will be initiated on the due date for payment, or if that is not a Payment Business Day, on the next succeeding Payment Business Day, without any interest or payment in respect of such delay.

5.2 Agents

The names of the initial Agents and their specified offices are set out in the Fiscal Agency Agreement. The Company reserves the right under and in accordance with the terms of the Fiscal Agency Agreement at any time to remove any Agent, and to appoint other or further agents or a replacement Registrar, *provided that* it will at all times maintain (i) a Fiscal Agent, (ii) a Paying Agent, (iii) a Registrar, (iv) a Transfer Agent and (v) a Singapore Paying Agent (for so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST so require, in the event that the Global Note is exchanged for Certificated Notes). Notice of any such removal or appointment and of any change in the specified office of any Agent will be given promptly by the Company to the Noteholders in accordance with Condition 12.

5.3 Payment subject to fiscal laws

All payments in respect of the Notes are subject in all cases to any applicable fiscal or other laws and regulations, but without prejudice to the provisions of Condition 8. No commissions or expenses shall be charged to the Noteholders in respect of such payments.

5.4 Payment date convention

If any Interest Payment Date or the Maturity Date would fall on a day that is not a Payment Business Day, that Interest Payment Date or the Maturity Date will be postponed to the following day that is a Payment Business Day, and no interest shall be payable in respect of any such delay.

5.5 Payment Business Day

In these Conditions, "**Payment Business Day**" means a day (other than a Saturday or Sunday) on which commercial banks and financial institutions are generally open for business in New York City, London, Seoul, the city where the specified office of the Paying Agent is located and (for so long as the Notes are listed on the SGX-ST and the rules of the SGX-ST require the

Company to maintain a Singapore Paying Agent) Singapore and, in the case of the surrender of a Certificated Note, in the place of the Transfer Agent or Registrar where the Certificated Note is surrendered.

6 TRANSFERS OF NOTES

6.1 Transfers

Subject as provided in Condition 6.2, a Note may be transferred by depositing the Certificated Note issued in respect of that Note, with the form of transfer on the back duly completed and signed, at the specified office of the Transfer Agent (or, in the case of a Note represented by a Global Note, delivery of a duly executed form of transfer as set forth in the Fiscal Agency Agreement), together with such evidence as the Registrar or the Transfer Agent may require to prove title to the Notes that are the subject of the transfer and the authority of the individuals who have executed the form of transfer. Legal title to the Notes will pass upon registration of such transfer in the Register.

All transfers of Notes and entries in the Register will be made subject to the terms concerning transfers of the Notes provided in the Fiscal Agency Agreement.

6.2 Closed Periods

If Certificated Notes are to be issued in exchange for the Global Note, no Noteholder may require the transfer of a Certificated Note to be registered (i) during the period of 15 days preceding the due date for any payment of principal of, or interest (if any) on, the Notes or (ii) after such Note has been selected or deposited for redemption pursuant to Condition 7.2 or 7.3.

6.3 Regulations

All transfers of Certificated Notes will be made subject to the detailed provisions concerning transfer of Notes set forth in Clause 4(b)(iv) of the Fiscal Agency Agreement. The provisions may be changed by the Company with the prior written approval of the Registrar.

7 REDEMPTION AND PURCHASE

7.1 Redemption at Maturity

Unless the Notes have been previously redeemed or repurchased and cancelled as provided below, the Company will redeem the Notes at 100% of their principal amount in U.S. dollars on the Maturity Date. The Notes may be redeemed prior to that date only as provided in Conditions 7.2 and 7.3 below, but without prejudice to Condition 10.

7.2 Redemption for Taxation Reasons

At any time, the Company may, having given not less than 30 or more than 60 days' notice to the holders of the Notes (which notice shall be irrevocable and delivered in accordance with Condition 12), redeem the Notes in whole, but not in part, at 100% of their principal amount plus accrued and unpaid interest, if any, to the date fixed for redemption, *provided that* prior to the delivery of any notice of redemption pursuant to this Condition 7.2, the Company shall deliver to the Fiscal Agent (1) a certificate signed by an authorized officer stating that the obligation to pay Additional Amounts (as defined in Condition 8.1) is as a result of any change in, or amendment to, the laws or regulations of a Relevant Jurisdiction (as defined in Condition 8.2), or any change in the general application or official interpretation of such laws or regulations, which change or amendment is announced and becomes effective after the date of the original issuance of the Notes (or if the Relevant Jurisdiction became a Relevant Jurisdiction after the date of original issuance, after the date such jurisdiction became a Relevant Jurisdiction) and cannot be avoided by the Company taking reasonable measures available to it and (2) an opinion addressed to the Fiscal Agent by an independent law firm of recognized standing admitted to practice in the Relevant Jurisdiction to the effect that the Company has or will become obliged to pay such Additional Amounts as a result of a change or amendment referred to above, and the Fiscal Agent shall be entitled to accept and conclusively rely upon such certificate and opinion (without further investigation or enquiry) as sufficient and conclusive evidence of the conditions precedent referred to in this Condition 7.2, in which event it shall be conclusive and binding on the holders of the Notes and the Fiscal Agent shall be protected and shall have no liability to any holder or any person for so accepting and relying on such certificate or opinion.

7.3 Change of Control Put Right

If a Change of Control Triggering Event occurs, Noteholders will have the right (the "**Change of Control Put Right**") to require the Company to redeem all or any part (equal to US$200,000 or an integral multiple of US$1,000 in excess thereof) of their Notes pursuant to the offer described below (the "**Change of Control Offer**"). In the Change of Control Offer, the Company will be required to offer payment in cash equal to 100% of the aggregate principal amount of the Notes redeemed plus accrued and unpaid interest, if any, on the Notes redeemed, to the date of redemption (the "**Change of Control Payment**"). Within 30 days following any Change of Control Triggering Event, the Company will provide notice to the Noteholders, with a copy to the Agents, describing the events that constitute the Change of Control Triggering Event and offering to redeem the Notes on the date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date of such notice (the "**Change of Control Payment Date**"), pursuant to the provisions of this Condition 7.3. To exercise the Change of Control Put Right, the Holder of the relevant Note must deposit at the specified office of the Fiscal Agent a duly completed and signed Change of Control Put Notice (as defined in the Fiscal Agency Agreement), in the form for the time being current, obtainable from the specified office of the Fiscal Agent during usual business hours (being between 9:00 am to 3:00 pm), together with, in the case of Certificated Notes, the Certificate evidencing the Note to be redeemed, by no later than 10 days prior to the Change of Control Payment Date. To the extent that the provisions of any securities laws (including, without limitation, the Financial Investment Services and Capital Markets Act of Korea) or regulations conflict with this Condition 7.3, the Company will be required to comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under this Condition 7.3 by complying with such laws and regulations.

On the Change of Control Payment Date, the Company will be required, to the extent lawful, to:

(a) accept for redemption and payment all Notes or portions of Notes properly tendered pursuant to a duly completed Change of Control Put Notice; and

(b) deposit with the Fiscal Agent an amount equal to the Change of Control Payment in respect of all Notes or portions of Notes properly tendered.

For so long as any Note remains outstanding, the Company shall use commercially reasonable efforts to cause at least two Rating Agencies to maintain ratings of the Notes.

For the purposes of this Condition 7.3:

"**Change of Control**" means the occurrence of any of the following: (1) the direct or indirect sale, transfer, conveyance or other disposition, in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its subsidiaries taken as a whole to any person other than the Company or one of its subsidiaries (other than for the purposes of, or pursuant to and followed by, a consolidation, amalgamation, merger or reorganization permitted by Condition 3.2) or (2) if at any time SK Square Co., Ltd. and its affiliates cease to hold at least 20% of the Company's outstanding shares.

"**Change of Control Triggering Event**" means the occurrence of both a Change of Control and a Rating Event.

"**Moody's**" means Moody's Investors Service, Inc.

"**Rating Agencies**" means (1) each of Moody's and S&P and (2) if any of Moody's or S&P ceases to rate the Notes or fails to make a rating of the Notes publicly available for reasons outside of the Company's control, a "nationally recognized statistical rating organization" recognized by the United States Securities and Exchange Commission, selected by the Company (as certified by a resolution of the Company's board of directors) as a replacement agency for Moody's or S&P (a "**Replacement Agency**"), or both of them, as the case may be.

"**Rating Event**" means the Notes are rated (1) below an investment grade credit rating (Ba1, or equivalent, or worse) by Moody's (or a Replacement Agency therefor) or (2) below an investment grade credit rating (BB+, or equivalent, or worse) by S&P (or a Replacement Agency therefor) on any date from the date of the public announcement by the Company of an arrangement that could result in a Change of Control until the end of the 60-day period following public announcement by the Company of the occurrence of the Change of Control (which 60-day period shall be extended so long as the rating of the Notes is under publicly announced consideration for possible downgrade by any of the Rating Agencies).

"**S&P**" means S&P Global Ratings, a division of S&P Global, Inc.

None of the Agents shall have any duty or obligation to verify or be required to monitor or to take any steps to ascertain whether a Change of Control Triggering Event or any event which could lead to the occurrence of a Change of Control Triggering Event has occurred or whether this Condition 7.3 conflicts with any securities laws or regulations, and shall not be liable to any person for not doing so.

*The definition of "**Change of Control**" includes a phrase relating to the sale, transfer, conveyance or other disposition of "all or substantially all" of the property or assets of the Company and its subsidiaries taken as a whole. Although there is a developing body of case law interpreting the phrase "substantially all", there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a Holder to require the Company to repurchase Notes as a result of a sale, transfer, conveyance or other disposition of less than all of the property or assets of the Company and its subsidiaries taken as a whole to another person or group may be uncertain.*

7.4 Purchases

The Company or any of its subsidiaries may at any time and from time to time repurchase Notes in the open market or otherwise at any price. Such Notes may be held by the Company, resold or surrendered to the Registrar for cancellation. If purchases are made by tender, tenders must be available to all Noteholders alike.

7.5 Cancellations

All Notes that are redeemed, repurchased or converted and surrendered to the Registrar for cancellation shall forthwith be cancelled. Notes cancelled may not be reissued or resold.

7.6 Redemption Procedures

In the event that the Company is required to deliver a notice to the holders of the Notes under this Condition 7, the Company shall provide, or procure the provision by the Fiscal Agent of, the notice to each holder of the Notes in accordance with Condition 12 and the provisions of the Fiscal Agency Agreement, which notice shall state, to the extent applicable:

(a) the date fixed for redemption;

(b) the applicable redemption price of a Note on the redemption date; and

(c) the names and addresses of all Paying Agents and the Registrar.

7.7 Notices Final

Upon the expiry of any notice as is referred to in Condition 7.2 or 7.3 above, the Company shall be bound to redeem the Notes to which the notice refers in accordance with the terms of such Condition.

8 TAXATION

8.1 Additional Amounts

All payments of principal and interest in respect of the Notes, including any Additional Amounts (as defined below), by or on behalf of the Company shall be made free and clear of and without withholding or deduction for, or on account of, any present or future taxes, duties, assessments or governmental charges of whatever nature ("**Taxes**") imposed, levied, collected, withheld or assessed by or on behalf of the Relevant Jurisdiction, as defined in Condition 8.2 below, except as required by applicable law. In that event, the Company will, subject to the exceptions and limitations set forth below, pay to a holder of any Note such additional amounts (the "**Additional Amounts**") as may be necessary in order that every net payment by the Company or a Paying Agent of the principal of and interest on the Note and any other amounts payable on the Note after withholding or deduction for or on account of any present or future tax, duty, assessment or governmental charge imposed or levied by a Relevant Jurisdiction, as defined in Condition 8.2 below, will not be less than the amount provided for in the Note to be then due and payable under the Notes.

However, the obligation to pay Additional Amounts shall not apply:

(a) to the holder or beneficial owner of the Notes who would not be liable for or subject to such deduction or withholding by making a declaration of non-residence or other similar claim for exemption to the relevant tax authority if, after having been requested in writing by the Company to make such a declaration or claim, such holder or beneficial owner of the Notes fails to do so within 30 days; or

(b) to the holder or beneficial owner of the Notes who is subject to Taxes in respect of the Notes by reason of the existence of any present or former connection between the holder (or between a fiduciary, settlor, beneficiary, member or shareholder of the holder, if the holder is an estate, a trust, a partnership, a limited liability company or a corporation) and a Relevant Jurisdiction, other than merely holding a Note or receiving a payment in respect of a Note, including, without limitation, the holder (or such fiduciary, settlor, beneficiary, member or shareholder) being or having been a citizen or resident of a Relevant Jurisdiction or being or having been engaged in a trade or business or present in a Relevant Jurisdiction or having, or having had, a permanent establishment in a Relevant Jurisdiction; or

(c) to the holder or beneficial owner of the Notes who presents the relevant Notes, where presentation is required, for payment on a date more than 30 days after the Relevant Date; or

(d) to any estate, inheritance, gift, sales, transfer, capital gains or personal property tax or any similar tax, duty, assessment or governmental charge; or

(e) to any tax, duty, assessment or other governmental charge that is payable otherwise than by withholding or deduction from payments on or in respect of any Note; or

(f) to any tax, duty, assessment or other governmental charge that would not have been imposed but for the failure of the holder or beneficial owner to comply, upon written request by the Company addressed to the holder, with certification, information or other reporting requirements concerning the nationality, residence or identity of the holder or beneficial owner of that Note, if compliance is required by statute or by regulation of a Relevant Jurisdiction as a precondition to relief or exemption from the tax, duty, assessment or other governmental charge; or

(g) to any tax, duty, assessment or other governmental charge required to be withheld by any Paying Agent from any payment of the principal of, or interest on, any Note, to the extent such tax, duty, assessment or other governmental charge results from the presentation (where presentation is required) of any Note for payment and the payment can be made without such withholding or deduction by the presentation of the Note for payment by at least one other Paying Agent; or

(h) to any combination of the items listed above.

Nor will Additional Amounts be paid with respect to any payment on a Note to a holder who is a fiduciary, a partnership, a limited liability company or other than the sole beneficial owner of that payment to the extent that payment would be required by the laws of a Relevant Jurisdiction to be included in the income, for tax purposes, of a beneficiary or settlor with respect to the fiduciary, a member of that partnership, an interest holder in a limited liability company or a beneficial owner who would not have been entitled to the Additional Amounts had that beneficiary, settlor, member, interest holder or beneficial owner been the holder.

References in these Conditions to payments in respect of the Notes shall be deemed to refer to any Additional Amounts that may be payable in respect thereof under this Condition 8.1.

The Agent shall in no event be responsible for paying any tax, duty, charges, withholding or other payment referred to in this Condition 8 or for determining whether such amounts are payable or the amount thereof, and shall not be responsible or liable for any failure by the Company or the Noteholders or any other person to pay such tax, duty, charges, withholding or other payment or be responsible to provide any notice or information in relation to the Notes in connection with payment of such tax, duty, charges, withholding or other payment.

Notwithstanding any other provision of these Conditions, any amounts to be paid on the Notes by or on behalf of the Company will be paid net of any deduction or withholding imposed or required pursuant to an agreement described in Section 1471(b) of the U.S. Internal Revenue Code of 1986, as amended (the "**Code**"), or otherwise imposed pursuant to Sections 1471 through 1474 of the Code (or any regulations thereunder or official interpretations thereof) or an intergovernmental agreement between the United States and another jurisdiction facilitating the implementation thereof (or any fiscal or regulatory legislation, rules or practices implementing such an intergovernmental agreement) (any such withholding or deduction, a "**FATCA Withholding**"). Neither the Company nor any other person will be required to pay any additional amounts in respect of FATCA Withholding.

8.2 Interpretation

For the purposes of these Conditions:

(a) "**Relevant Date**" in relation to any Notes means (i) the due date for payment in respect thereof or (ii) if the full amount of the moneys payable on such due date has not been received by the Fiscal Agent or the Paying Agent on or prior to such due date, the date on which notice is duly given to the holders of the Notes that such moneys have been so received; and

(b) "**Relevant Jurisdiction**" means the Republic of Korea or any political subdivision or any authority thereof or therein having power to tax or any other jurisdiction or any political subdivision or any authority thereof or therein having power to tax to which the Company or any successor becomes subject in respect of payments made by it of principal and interest on the Notes (including, without limitation, any jurisdiction of incorporation, organization, tax residency and jurisdiction in which it is doing business).

9 PRESCRIPTION

Claims against the Company in respect of the payment of principal and interest on the Notes shall be prescribed unless made within 10 years (in the case of principal) and five years (in the case of interest) from the Relevant Date (as defined in Condition 8).

10 EVENTS OF DEFAULT

10.1 Events of Default

The holder of any Note may give written notice addressed to the Company and delivered to the Company with a copy to the Fiscal Agent that the Note is, and it shall accordingly forthwith become, immediately due and repayable at its principal amount, together with interest accrued to the date of repayment, if any of the following events (an "**Event of Default**") shall have occurred and be continuing:

(a) the Company fails to pay the principal or interest, if any, on, any of the Notes, and in the case of principal, the failure continues for a period of seven days and in the case of interest, the failure continues for a period of 30 days; or

(b) the Company fails to perform or observe any of its other obligations under these Conditions or in the Fiscal Agency Agreement and the failure continues for a period of 60 days following the service by any Noteholder on the Company of a notice requiring the same to be remedied; or

(c) if (i) any Indebtedness for Borrowed Money (as defined below) of the Company becomes due and repayable prematurely by reason of an event of default (however described); (ii) the Company fails to make any payment in respect of any Indebtedness for Borrowed Money on the due date for payment; (iii) any security given by the Company for any Indebtedness for Borrowed Money becomes enforceable or proceedings are commenced to enforce any security; or (iv) default is made by the Company in making any payment due under any guarantee and/or indemnity given by it in relation to any Indebtedness for Borrowed Money of any other person; *provided, that* no event described in this Condition 10.1(c) shall constitute an Event of Default unless the relevant amount of Indebtedness for Borrowed Money or other relative liability due and unpaid, either alone or when aggregated (without duplication) with other amounts of Indebtedness for Borrowed Money and/or other liabilities due and unpaid relative to all (if any) other events specified in (i) through (iv) above which have occurred and are continuing, amounts to at least US$30,000,000 (or its equivalent in any other currency); or

(d) if any order is made by any competent court or resolution is passed for the winding up or dissolution of the Company; or

(e) the Company ceases or threatens to cease to carry on the whole or a substantial part of its business save for the purposes of, or pursuant to and followed by, a consolidation, amalgamation, merger or reorganization permitted by Condition 3.2; or

(f) if (i) proceedings are initiated against the Company under any applicable liquidation, insolvency, composition, reorganization or other similar laws or an application is made (or documents filed with a court) for the appointment of an administrative or other receiver, manager, administrator or other similar official, or an administrative or other receiver, manager, administrator or other similar official is appointed, in relation to the Company or, as the case may be, in relation to the whole or any part of its undertaking or assets or an encumbrancer takes possession of the whole or any part of its undertaking or assets, or a distress, execution, attachment, sequestration or other process is levied, enforced upon, sued out or put in force against the whole or any part of its undertaking or assets and (ii) in any such case (other than the appointment of an administrator), unless initiated by the relevant company, is not discharged within 60 days; or

(g) if the Company (or any of its respective directors or shareholders) initiates or consents to juridical proceedings relating to itself under any applicable liquidation, insolvency, composition, reorganization or other similar laws (including the obtaining of a moratorium) or makes a conveyance or assignment for the benefit of, or enters into any composition or other arrangement with, its creditors generally (or any class of its creditors) or any meeting is convened to consider a proposal for an arrangement or composition with its creditors generally (or any class of its creditors); or

(h) any event occurs which under the laws of the Republic of Korea has an analogous effect to any of the events referred to in (a) through (g) above.

10.2 Interpretation

For the purposes of these Conditions:

"**Indebtedness for Borrowed Money**" means any indebtedness (whether being principal, premium, interest or other amounts) for or in respect of any notes, bonds, debentures, debenture stock, loan stock or other securities or any borrowed money or any liability under or in respect of any acceptance or acceptance credit.

11 REPLACEMENT OF CERTIFICATES

If any Certificated Note is lost, stolen, mutilated, defaced or destroyed it may be replaced at the specified office of the Registrar or such Transfer Agent upon payment by the claimant of the expenses incurred in connection with such replacement and on such terms as to evidence, security, indemnity, prefunding and otherwise as the Company, Registrar or Transfer Agent may require. Mutilated or defaced Certificated Notes must be surrendered before replacements will be issued.

12 NOTICES

All notices to holders of the Notes shall be validly given if mailed to them at their respective addresses in the record of holders of the Notes maintained by the Registrar and deemed to have been given on the fifth weekday (being a day other than a Saturday or a Sunday) after the date of mailing and by the participants, or published in a leading newspaper having general circulation in Asia (which is expected to be the *Asian Wall Street Journal*). Notwithstanding the foregoing, so long as the Notes are represented by the Global Note and the Global Note is held on behalf of DTC, notice to Noteholders may be given by delivery of the relevant notice to DTC, for communication by them to entitled accountholders in substitution for notification as required by the foregoing sentence. The Company shall also ensure that notices are duly given or published in a manner which complies with the rules and regulations of any stock exchange on which the Notes are for the time being listed. Any such notice shall be deemed to have been given on the seventh day after being so mailed or on the date of such publication.

13 MEETINGS OF NOTEHOLDERS, MODIFICATION AND WAIVER

13.1 Meetings of Noteholders

The Fiscal Agency Agreement contains provisions for convening meetings of the Noteholders to consider any matter affecting their interests, including the modification by Extraordinary Resolution (as defined below) of any of these Conditions or any of the provisions of the Fiscal Agency Agreement. Such a meeting may be convened by Noteholders holding not less than 10% of the principal amount of the Notes then outstanding. The quorum at any meeting for passing an Extraordinary Resolution will be one or more persons present holding or representing more than 50% of the principal amount of the Notes then outstanding, or, at any adjourned meeting, one or more persons present holding or representing more than 25% of the principal amount of the Notes then outstanding; *provided, however*, that no such meeting shall consider the modification, amendment or waiver to the Fiscal Agency Agreement or any Note to (i) change the stated maturity of the Notes or the scheduled dates for payment of principal of or interest on any Note; (ii) reduce the principal of or interest on any such Note; (iii) change the currency of payment of the principal of or interest on such Note; or (iv) reduce the above-stated percentage of the aggregate principal amount of the Notes outstanding or reduce the quorum requirements or the percentage of votes required for the taking of any action, in which case the necessary quorum for passing an Extraordinary Resolution will be one or more persons present holding or representing not less than two-thirds, or at any adjourned meeting not less than one-third, of the principal amount of the Notes for the time being outstanding. An Extraordinary Resolution passed at any meeting of the Noteholders will be binding on all Noteholders, whether or not they are present at the meeting.

"**Extraordinary Resolution**" means a resolution duly passed by either (i) a majority in aggregate principal amount of the Notes then outstanding pursuant to a written resolution of the Noteholders or (ii) 75% in aggregate principal amount of the Notes represented and voting at a duly convened meeting of the Noteholders.

13.2 Modification

The Company shall only permit any modification, without the consent of the Noteholders, to these Conditions or any of the provisions of the Fiscal Agency Agreement either (i) for the purpose of curing any ambiguity or of curing, correcting or supplementing any manifest or proven error or any other defective provision contained herein or therein or (ii) in any other manner which is not materially prejudicial to the interests of the Noteholders. Any determination as to prejudice applying to the interests of the Noteholders pursuant to this Condition shall be made by the Company and none of the Agents shall have any responsibility or liability whatsoever with respect to such determination. Any modification shall be binding on the Noteholders and shall be notified by the Company to the Noteholders as soon as practicable thereafter in accordance with Condition 12.

14 FURTHER ISSUANCES

The Company may from time to time, without notice to or the consent of the holders of the Notes, create and issue further debt securities ranking *pari passu* with the Notes in all respects (or in all respects except for the payment of interest accruing prior to the issue date of the additional Notes or except for the first payment of interest following the issue date of the additional Notes). The Company may consolidate such further debt securities with the outstanding Notes to form a single series to the extent permitted under applicable law. References in these Conditions to the Notes include (unless the context requires otherwise) any other securities issued pursuant to this Condition 14 and forming a single series with the Notes, provided, however, that any additional debt securities shall be issued under a separate CUSIP, ISIN and/or other identifying number, as applicable, unless the additional debt securities are issued pursuant to a "qualified reopening" of the original series, are otherwise treated as part of the same "issue" of debt instruments as the original series or are issued with less than a *de minimis* amount of original issue discount, in each case for U.S. federal income tax purposes.

15 GOVERNING LAW AND SUBMISSION TO JURISDICTION

15.1 Governing Law

The Fiscal Agency Agreement and the Notes are governed by, and shall be construed in accordance with, the laws of the State of New York.

15.2 Jurisdiction

The Company agrees that any legal suit, action or proceeding arising out of or based upon the Fiscal Agency Agreement or the Notes may be instituted in any state or federal court in the Borough of Manhattan, the State and City of New York.

The Company, to the fullest extent it is permissible to do so under applicable law, (a) waives any objection which it may have now or hereafter to the laying of the venue of any such suit, action or proceeding in any such court and (b) irrevocably submits to the non-exclusive jurisdiction of any such court in any suit, action or proceeding.

15.3 Appointment of Process Agent

The Company has agreed to irrevocably appoint SK hynix America Inc., located at 3101 North 1st Street, San Jose, CA 95134, as its authorized agent in the State of New York to receive service of process in any proceedings in the State of New York based on any of the Notes or the Fiscal Agency Agreement. The Company agrees that in the event of such agent ceasing so to act it will appoint such other person as its agent for that purpose.

16 Currency Indemnity

The Company's obligations under the Notes to make all payments in U.S. dollars will not be satisfied by any payment, recovery or any other realization of proceeds in any currency other than the U.S. dollar. If pursuant to any such judgment, conversion shall be made on a date (the "**Substitute Date**") other than the date of entry of judgment (the "**Judgment Date**") and there shall occur a change between the market exchange rate for the U.S. dollar as in effect on the Substitute Date and the market exchange rate as in effect on the Judgment Date, the Company agrees to pay such Additional Amounts (if any) in U.S. dollars as may be necessary to ensure that the amount paid is equal to the amount in such other currency or currency unit which, when converted at the market exchange rate as in effect on the Judgment Date, is the amount due under any Notes. To the extent permitted by applicable law, any amount due from the Company under this Condition 16 shall be due as a separate debt and is not to be affected by or merged into any judgment being obtained for any other sums due in respect of any Notes. In no event, however, shall the Company be required to pay more in U.S. dollars due under the Notes at the market exchange rate as in effect on the Judgment Date than the amount of U.S. dollars stated to be due under the Notes so that in any event the Company's obligations under the Notes will be effectively maintained as obligations in U.S. dollars and the Company shall be entitled to withhold (or be reimbursed for, as the case may be) any excess of the amount actually realized upon any such conversion on the Substitute Date over the amount due on the Judgment Date.

TAXATION

Korean Taxation

The information provided below does not purport to be a complete summary of Korean tax law and practice currently applicable. Prospective investors who are in any doubt as to their tax position should consult with their own professional advisors.

The taxation of non-resident individuals and non-Korean corporations ("Non-Residents") depends on whether they have a "permanent establishment" (as defined under Korean law and applicable tax treaty) in Korea to which the relevant Korean source income is attributable or with which such income is effectively connected. Non-Residents without a permanent establishment in Korea are taxed in the manner described below. Non-Residents with permanent establishments in Korea are taxed in accordance with different rules.

Tax on Interest

Interest on the Notes paid to Non-Residents, being foreign currency denominated bonds issued outside of Korea, is exempt from income tax and corporation tax (whether payable by withholding or otherwise) pursuant to the Special Tax Treatment Control Law (the "STTCL").

If the tax exemption under the STTCL referred to above were to cease to be in effect, the rate of income tax or corporation tax applicable to interest on the Notes, for a Non-Resident without a permanent establishment in Korea, would be 14% of income. In addition, a tax surcharge called a local income tax would be imposed at the rate of 10% of the income or corporation tax (raising the total tax rate to 15.4%).

The tax rates may be reduced by an applicable tax treaty, convention or agreement between Korea and the resident country of the recipient of the income. The relevant tax treaties are discussed below.

In addition, in order to obtain the benefit of a reduced rate available under applicable tax treaties, a Non-Resident holder must submit an application for entitlement to reduced tax rate to the party liable for the withholding before the receipt of the relevant interest payment (if there is no change in the contents of such application, it is not required to submit such application again within 3 years thereafter), together with a certificate of the Non-Resident holder's tax residence issued by a competent authority of the Non-Resident holder's resident country under certain circumstances. If the Non-Resident holder was unable to receive the benefit of a reduced rate due to his or her failure to timely submit the aforementioned application, the Non-Resident holder may still receive a tax return if the submission is made within five years thereafter. If interest is paid to an overseas investment vehicle, the overseas investment vehicle (subject to certain exceptions) must collect from each of its beneficial owners an application for entitlement to reduced tax rate and submit a report of overseas investment vehicle and a schedule of beneficial owners to the payer of the interest. Effective from January 1, 2022, an overseas investment vehicle is deemed to be a beneficial owner of Korean source income for income tax purposes, if (i) under the applicable tax treaty, the overseas investment vehicle bears tax liabilities in the country in which it is established and the overseas investment vehicle is deemed to be the owner of the Korean source income; or (ii) the Korean source income is eligible for treaty benefits under the tax treaty. The benefits under a tax treaty between Korea and the country of such overseas investment vehicle's residence will apply with respect to the relevant income paid to such overseas investment vehicle, subject to certain application requirements as prescribed by the Korean tax laws.

Tax on Capital Gains

Korean tax laws currently exclude from Korean taxation gains made by a Non-Resident without a permanent establishment in Korea from the sale of the Notes to other Non-Residents (other than to their permanent establishments in Korea). In addition, capital gains earned by Non-Residents with or without permanent establishments in Korea from the transfer taking place outside Korea of the Notes are currently exempt from taxation by virtue of STTCL, provided that the issuance of the Notes is deemed to be an overseas issuance under the STTCL.

If the exclusion or exemption from Korean taxation referred to above were to cease to be in effect, in the absence of an applicable treaty reducing or eliminating tax on capital gains, the applicable rate of tax would be the lower of 11% (including local income tax) of the gross realization proceeds or (subject to the production of satisfactory evidence of the acquisition cost and certain direct transaction costs of the relevant Note) 22% (including local income tax) of the realized gain (i.e., the excess of the gross realization proceeds over the acquisition cost and certain direct transaction costs) made. If such evidence shows that no gain (or a loss) was made on the sale, no Korean tax is payable. There is no provision under relevant Korean law to allow offsetting of gains and losses or otherwise aggregating transactions for the purpose of computing the net gain attributable to sales of Notes issued by Korean companies. The purchaser or any other designated withholding agent of Notes is obliged under Korean law to withhold the applicable amount of Korean tax and make payment thereof to the relevant Korean tax authority. Unless the seller can claim the benefit of an exemption from tax under an applicable tax treaty or on the failure of the seller to produce satisfactory evidence of his acquisition cost and certain direct transaction costs in relation to the instruments being sold, the purchaser or such withholding agent must withhold an amount equal to 11% of the gross realization proceeds. Any amounts withheld by the purchaser or such withholding agent must be paid to the competent Korean tax office. The purchaser or withholding agent must pay any withholding tax no later than the tenth day of the month following the month in which the payment for the purchase of the relevant instruments occurred. Failure to transmit the withheld tax to the Korean tax authorities in time subjects the purchaser or such withholding agent to penalties under Korean tax laws.

Furthermore, for a Non-Resident to obtain the benefit of a tax exemption on certain Korean source income (e.g., interest payments and capital gains) under an applicable tax treaty, Korean tax law requires such Non-Resident (or its agents) to submit to the payer of such Korean source income an application for tax exemption under a tax treaty along with a certificate of tax residency of such Non-Resident issued by a competent authority of the Non-Resident's country of tax residence, subject to certain exceptions. The payer of such Korean source income, in turn, is required to submit such application to the relevant district tax office by the ninth day of the month following the date of the first payment of such income. Subject to certain exceptions, where the relevant income is paid to an overseas investment vehicle, the overseas investment vehicle must collect from each of its beneficial owners an application for tax exemption, together with a certificate of tax residence of the beneficial owner and submit a report of overseas investment vehicle and a schedule of beneficial owners, together with its beneficial owner's application for tax exemption. Effective from January 1, 2022, an overseas investment vehicle is deemed to be a beneficial owner of Korean source income for income tax purposes, if (i) under the applicable tax treaty, the overseas investment vehicle bears tax liabilities in the country in which it is established and the overseas investment vehicle is deemed to be the owner of the Korean source income; or (ii) the Korean source income is eligible for treaty benefits under the tax treaty. The benefits under a tax treaty between Korea and the country of such overseas investment vehicle's residence will apply with respect to the relevant income paid to such overseas investment vehicle, subject to certain application requirements as prescribed by the Korean tax laws.

Inheritance and Gift Tax

Korean inheritance tax is imposed upon (a) all assets (wherever located) of the deceased if at the time of his death he was domiciled in Korea or had resided in Korea continuously for at least 183 days immediately prior to his death and (b) all property located in Korea that passes on death (irrespective of the domicile of the deceased). Gift tax is imposed in similar circumstances to the above. The taxes are imposed if the value of the relevant property is above a certain limit and the rate varies from 10% to 50% based on the value of the relevant property. At present, Korea has not entered into any tax treaties regarding its inheritance or gift taxes.

Under Korean inheritance and gift tax laws, bonds issued by Korean corporations are deemed located in Korea irrespective of where they are physically located or by whom they are owned, and, consequently, the Korean inheritance and gift taxes will be imposed on transfers of the Notes by inheritance or gift. Prospective purchasers should consult their personal tax advisors regarding the consequences of the imposition of the Korean inheritance or gift tax.

Stamp Duty and Securities Transaction Tax

No stamp, issue or registration duties will be payable in Korea by the holders of the Notes in connection with the issue of the Notes except for a nominal amount of stamp duty on certain documents executed in Korea which will be paid by the Company. No securities transaction tax will be imposed upon the transfer of the Notes.

Tax Treaties

At the date of this Offering Circular, Korea has tax treaties with, *inter alia*, Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, The Netherlands, New Zealand, Norway, Singapore, Sweden, Switzerland, the United Kingdom and the United States of America, under which the rate of withholding tax on interest is reduced, generally to between 10 and 16.5% (including local income tax), and the tax on capital gains is often eliminated.

Each holder of the Notes should inquire whether such holder is entitled to the benefit of a tax treaty with respect to any transaction involving the Notes. It is the responsibility of the party claiming the benefits of a tax treaty in respect of interest payments and capital gains to file with the payer or the Company a certificate as to his tax residence. In the absence of sufficient proof, the payer or the Company must withhold taxes in accordance with the above discussion.

Withholding and Gross Up

As mentioned above, interest on the Notes paid to Non-Residents without a permanent establishment in Korea is exempt from any withholding or deduction on account of income tax or corporation tax pursuant to STTCL if the Notes are deemed to be issued outside Korea under the STTCL. However, in the event that the payer or the Company is required by law to make any withholding or deduction for or on account of any Korean taxes (as more fully described in "Terms and Conditions of the 2026 Notes and the Green Notes – Taxation" and "Terms and Conditions of the Sustainability-Linked Notes – Taxation") the Company has agreed to pay (subject to the customary exceptions as set out in "Terms and Conditions of the 2026 Notes and the Green Notes – Taxation" and "Terms and Conditions of the Sustainability-Linked Notes – Taxation") such Additional Amounts as may be necessary in order that the net amounts received by the holder of any Note after such withholding or deduction shall equal the respective amounts which would have been received by such holder in the absence of such withholding or deduction.

United States Federal Income Taxation

The following is a summary of certain U.S. federal income tax considerations that may be relevant to a U.S. Holder (as defined below) of a Note. This summary is based on provisions of the Internal Revenue Code of 1986, as amended (the "Code"), applicable Treasury regulations, laws, rulings and decisions as of the date hereof, all of which are subject to change, possibly with retroactive effect. This summary deals only with beneficial owners of Notes that will hold Notes as capital assets and that acquire the Notes in this offering at their issue price. It does not address particular tax considerations that may be applicable to investors that are subject to special tax rules, such as banks and other financial institutions, tax-exempt entities, insurance companies, individual retirement accounts and other tax-deferred accounts, regulated investment companies, dealers in securities or currencies, traders in securities electing to mark to market, persons that will hold Notes as a position in a "straddle," hedging, or conversion transaction, or as part of a "synthetic security" or other integrated financial transaction, persons holding the Notes in connection with a trade or business outside the United States, entities or arrangements taxed as partnerships for U.S. federal income tax purposes or the partners therein, nonresident alien individuals present in the United States for more than 182 days during the taxable year, persons that have ceased to be U.S. citizens or lawful permanent residents of the United States or persons that have a "functional currency" other than the U.S. dollar.

This summary addresses only U.S. federal income tax consequences and does not address consequences arising under state, local, non-U.S. tax laws, any alternative minimum tax, the Medicare tax on net investment income, the special timing rules prescribed under section 451(b) of the Code or U.S. federal gift or estate tax laws. Investors should consult their own tax advisors in determining the tax consequences to them of holding Notes under such tax laws, as well as the application to their particular situation of the U.S. federal income tax considerations discussed below.

As used herein, a "U.S. Holder" is a beneficial owner of a Note that is, for U.S. federal income tax purposes, an individual citizen or resident of the United States or a U.S. domestic corporation or that otherwise will be subject to U.S. federal income taxation on a net income basis in respect of the Note.

Investors should consult their tax advisors concerning the particular U.S. federal income tax consequences of the purchase, ownership and disposition of the Notes, as well as the consequences under the laws of any other taxing jurisdiction.

Certain Payments on the Sustainability-Linked Notes

Upon the occurrence of a Trigger Event, the Rate of Interest on the Sustainability-Linked Notes will increase with effect from (and including) the Coupon Reset Date (see "Terms and Conditions of the Sustainability-Linked Notes"). This potential interest rate change may implicate the provisions of the U.S. Treasury regulations relating to "contingent payment debt instruments." Under these U.S. Treasury regulations, however, one or more contingencies will not cause a debt instrument to be treated as a contingent payment debt instrument, if, as of the issue date, such contingencies in the aggregate are considered "remote" or "incidental" or if certain other standards are satisfied. Although not free from doubt, the Company intends to take the position that the possibility that the interest change discussed above should not cause the Sustainability-Linked Notes to be treated as contingent payment debt instruments for U.S. federal income tax purposes. The Company's determination generally is binding on a holder unless such holder discloses its contrary position in the manner required by the applicable U.S. Treasury regulations. The Company's determination is not, however, binding on the Internal Revenue Service (the "IRS"). It is possible that the IRS may take a different position from that described above, in which case, if such position is sustained, the timing and amount of income included and the character of the income recognized with respect to the Sustainability-Linked

Notes may be materially and adversely different from the consequences discussed herein. The remainder of this discussion assumes that the Sustainability-Linked Notes will not be treated as contingent payment debt instruments for U.S. federal income tax purposes. Prospective investors should consult their own tax advisors regarding the possible application of the contingent payment debt instrument rules to the Sustainability-Linked Notes.

Payments of Interest and Additional Amounts

General. The gross amount of stated interest and any Additional Amounts (i.e., without reduction for Korean withholding taxes, if any), will be taxable to a U.S. Holder as ordinary interest income at the time it accrues or is actually or constructively received, in accordance with the U.S. Holder's method of accounting for U.S. federal income tax purposes. Interest and Additional Amounts will constitute income from sources without the United States.

It is expected, and this discussion assumes, that the Notes will be issued without OID for U.S. federal income tax purposes. In general, however, if the Notes are issued with OID at or above a de minimis threshold, a U.S. Holder will be required to include OID in gross income, as ordinary income, under a "constant-yield method" before the receipt of cash attributable to such income, regardless of the U.S. Holder's regular method of accounting for U.S. federal income tax purposes. Prospective investors should consult their tax advisors concerning the applicability of the foreign tax credit rules to income from the Notes in case any Korean withholding taxes are imposed on interest payments.

Sale, Exchange and Retirement of Notes

Upon the sale, exchange or retirement of a Note, a U.S. Holder generally will recognize gain or loss equal to the difference between the amount realized on the sale, exchange or retirement (less any accrued interest, which will be taxable as such) and the U.S. Holder's tax basis in such Note. A U.S. Holder's tax basis in a Note will generally equal the cost of the Note to the U.S. Holder.

Gain or loss recognized upon a sale, exchange or retirement of a Note generally will be long-term capital gain or loss if the U.S. Holder has held the Note for more than one year at the time of disposition. Long-term capital gains recognized by an individual holder generally are subject to tax at a lower rate than short-term capital gains or ordinary income. The deduction of capital losses is subject to limitations.

Specified Foreign Financial Assets

Certain U.S. Holders that own "specified foreign financial assets" with an aggregate value in excess of $50,000 on the last day of the taxable year or $75,000 at any time during the taxable year are generally required to file an information statement along with their tax returns, currently on Form 8938, with respect to such assets. "Specified foreign financial assets" include any financial accounts held at a non-U.S. financial institution, as well as securities issued by a non-U.S. issuer (which may include Notes issued in certificated form) that are not held in accounts maintained by financial institutions. Higher reporting thresholds apply to certain individuals living abroad and to certain married individuals. Regulations extend this reporting requirement to certain entities that are treated as formed or availed of to hold direct or indirect interests in specified foreign financial assets based on certain objective criteria. U.S. Holders who fail to report the required information could be subject to substantial penalties. In addition, the statute of limitations for assessment of tax would be suspended, in whole or part. Prospective investors should consult their own tax advisors concerning the application of these rules to their investment in the Notes, including the application of the rules to their particular circumstances.

Information Reporting and Backup Withholding

Information returns will be filed with the IRS in connection with payments on the Notes made to, and the proceeds of sales or other dispositions of Notes effected by, certain U.S. Holders. In addition, certain U.S. persons may be subject to backup withholding in respect of such amounts if they do not provide their taxpayer identification numbers to the person from whom they receive payments. Holders who are not U.S. persons may be required to comply with applicable certification procedures to establish that they are not U.S. persons in order to avoid the application of such information reporting requirements and backup withholding. The amount of any backup withholding from a payment to a holder will be allowed as a credit against the holder's U.S. federal income tax liability and may entitle the holder to a refund, provided that the required information is timely furnished to the IRS. Investors should consult their tax advisors about these rules and any other reporting obligations that may apply to their ownership or disposition of Notes.

Proposed Financial Transaction Tax ("FTT")

On February 14, 2013, the European Commission published a proposal (the "Commission's Proposal") for a Directive for a common FTT in Belgium, Germany, Estonia, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia (the "Participating Member States"), which, if enacted, could apply under certain circumstances, to transactions involving the Notes. The issuance and subscription of Notes should be exempt. Estonia has officially announced its withdrawal from the negotiations.

The mechanism by which the tax would be applied and collected is not yet known, but if the proposed directive or any similar tax is adopted, transactions in the Notes would be subject to higher costs, and the liquidity of the market for the Notes may be diminished.

Following the lack of consensus in the negotiations on the Commission's Proposal, the Participating Member States (excluding Estonia which withdrew) have agreed to continue negotiations on a new proposal based on the French model of the tax which would only concern listed shares of EU companies whose market capitalization exceeds €1 billion as of December 1 of the year preceding the taxation year. According to this new proposal, the applicable tax rate would be at least 0.2%. Primary market transactions should be exempt. However, this new proposal could be subject to changes before any implementation, the timing of which remains unclear.

Additional EU Member States may decide to participate and/or certain of the Participating Member States may decide to withdraw (in addition to Estonia which already withdrew).

Prospective holders of the Notes are advised to seek their own professional advice in relation to the consequences of the FTT that could be associated with subscribing for, purchasing, holding and disposing of the Notes.

PLAN OF DISTRIBUTION

Subject to the terms and conditions stated in the purchase agreement dated January 10, 2023, (the "Purchase Agreement"), each initial purchaser named below (each, an "Initial Purchaser" and collectively, the "Initial Purchasers") has severally agreed to purchase from the Company, and the Company has agreed to sell to such Initial Purchaser, the principal amount of the 2026 Notes, the Sustainability-Linked Notes and the Green Notes set forth opposite the name of such Initial Purchaser.

Initial Purchasers	Principal Amount of the 2026 Notes	Principal Amount of the Sustainability-Linked Notes	Principal Amount of the Green Notes
BNP Paribas	US$ 107,143,000	US$ 142,857,000	US$ 107,143,000
Merrill Lynch International	107,143,000	142,857,000	107,143,000
Citigroup Global Markets Inc.	107,143,000	142,858,000	107,143,000
Crédit Agricole Corporate and Investment Bank	107,143,000	142,857,000	107,143,000
The Hongkong and Shanghai Banking Corporation Limited	107,143,000	142,857,000	107,143,000
MUFG Securities Asia Limited	107,143,000	142,857,000	107,143,000
Standard Chartered Bank	107,142,000	142,857,000	107,142,000
Total	US$ 750,000,000	US$ 1,000,000,000	US$ 750,000,000

The Purchase Agreement provides that the obligations of each of the Initial Purchasers to purchase the Notes are subject to approval of certain legal matters by counsel and to certain other conditions. Each of the Initial Purchasers must purchase all the Notes set forth opposite its name if they purchase any of the Notes. The Purchase Agreement also provides that if an Initial Purchaser defaults, the purchase commitments of non-defaulting Initial Purchasers may be increased or the offering may be terminated.

If a jurisdiction requires that the offering be made by a licensed broker or dealer and the Initial Purchasers or any affiliate of the Initial Purchasers is a licensed broker or dealer in that jurisdiction, the offering shall be deemed to be made by that Initial Purchaser or its affiliate on behalf of the Company in such jurisdiction.

The Initial Purchasers and their affiliates are full service financial institutions engaged in various activities which may include securities trading, commercial and investment banking, financial advice, investment management, principal investment, hedging, financing and brokerage activities. Each of the Initial Purchasers may have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with the Company or its subsidiaries, jointly controlled entities or associated companies and may be paid fees in connection with such services from time to time. In the ordinary course of their various business activities, the Initial Purchasers and their affiliates may make or hold (on their own account, on behalf of clients or in their capacity of investment advisers) a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments and enter into other transactions, including credit derivatives (such as asset swaps, repackaging and credit default swaps) in relation thereto. Such transactions, investments and securities activities may involve securities and instruments of the Company or its subsidiaries, jointly controlled entities or associated companies, including the Notes, may be entered into at the same time or proximate to offers and sales of Notes or at other times in the secondary market and be carried out with counterparties that are also purchasers, holders or sellers of the Notes and could adversely affect the trading price and liquidity of the Notes. The Notes issued hereunder may be purchased by or be allocated to any Initial Purchaser or an affiliate for asset management and/or proprietary purposes but not with a view to distribution. Such persons do not intend to disclose the extent of any such investment or transactions other than in accordance with any legal or regulatory obligation to do so.

Commissions and Discounts

The purchase price for each of the Notes will be the applicable offering price set forth on the cover page of this Offering Circular net of a combined management and underwriting commission. After the initial offering, the offering price or any other selling term may be changed.

New Issue of Notes

The Notes are a new issue of securities with no established trading market. The Initial Purchasers may make a market in the Notes after completion of the offering. However, they are under no obligation to do so and may discontinue any market-making activities at any time without any notice. The Company cannot assure the liquidity of the trading market for the Notes. If an active trading market for the Notes does not develop, the market price and liquidity of the Notes may be adversely affected. If the Notes are traded, they may trade at a discount from their initial offering price, depending on prevailing interest rates, the market for similar securities, the Company's operating performance and financial condition, general economic conditions and other factors.

Settlement

Delivery of the Notes is expected on or about January 17, 2023.

No Sales of Similar Securities

The Company has agreed that it will not issue, offer, sell or contract to sell, or otherwise dispose of or enter into any transaction which is designed to, or might reasonably be expected to, result in the offer of, or announce the offering of, any non-Won denominated debt securities issued or guaranteed by the Company (other than the Notes), without the prior written consent of the Initial Purchasers for a period of 15 days following the date of this Offering Circular.

Short Positions

In connection with the offering, the Initial Purchasers may purchase and sell the Notes in the open market. These transactions may include short sales and purchases on the open market to cover positions created by short sales. Short sales involve the sale by the Initial Purchasers of a greater principal amount of Notes than they are required to purchase in the offering. The Initial Purchasers must close out any short position by purchasing Notes in the open market. A short position is more likely to be created if the Initial Purchasers are concerned that there may be downward pressure on the price of the Notes in the open market after pricing that could adversely affect investors who purchase in the offering.

Similar to other purchase transactions, the Initial Purchasers' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of the Notes or preventing or retarding a decline in the market price of the Notes. As a result, the price of the Notes may be higher than the price that might otherwise exist in the open market.

None of the Company and the Initial Purchasers make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the Notes. In addition, none of the Company and the Initial Purchasers make any representation that the Initial Purchasers will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

It is expected that the delivery of the Notes will be made against payment therefor on or about the date specified on the cover page of this Offering Circular, which will be the fourth business day following the date of pricing of the Notes (such settlement cycle being herein referred to as "T+4"). Under Rule 15c6-1 under the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. Accordingly, if purchasers of the Notes wish to trade in the Notes on any day prior to the second business day before the settlement date, because the Notes will initially settle in T+4, the purchasers of the Notes may be required to specify an alternate settlement cycle at the time of such trade to prevent a failed settlement. Purchasers of the Notes who wish to trade the Notes prior to their date of delivery hereunder should consult their advisors.

Important Notice to CMIs (including private banks)

This notice to CMIs (including private banks) is a summary of certain obligations the SFC Code imposes on CMIs, which require the attention and cooperation of other CMIs (including private banks). Certain CMIs may also be acting as OCs for this offering and are subject to additional requirements under the SFC Code.

Prospective investors who are the directors, employees or major shareholders of the Company, a CMI or its group companies would be considered under the SFC Code as having an Association with the Company, the CMI or the relevant group company. CMIs should specifically disclose whether their investor clients have any Association when submitting orders for the Notes. In addition, private banks should take all reasonable steps to identify whether their investor clients may have any Associations with the Company or any CMI (including its group companies) and inform the Initial Purchasers accordingly.

CMIs are informed that, unless otherwise notified, the marketing and investor targeting strategy for this offering includes institutional investors, sovereign wealth funds, pension funds, hedge funds, family offices and high net worth individuals, in each case, subject to the selling restrictions set out elsewhere in this Offering Circular.

CMIs should ensure that orders placed are bona fide, are not inflated and do not constitute duplicated orders (i.e. two or more corresponding or identical orders placed via two or more CMIs). CMIs should enquire with their investor clients regarding any orders which appear unusual or irregular. CMIs should disclose the identities of all investors when submitting orders for the Notes (except for omnibus orders where underlying investor information may need to be provided to any OCs when submitting orders). Failure to provide underlying investor information for omnibus orders, where required to do so, may result in that order being rejected. CMIs should not place "X-orders" into the order book.

CMIs should segregate and clearly identify their own proprietary orders (and those of their group companies, including private banks as the case may be) in the order book and book messages.

CMIs (including private banks) should not offer any rebates to prospective investors or pass on any rebates provided by the Company. In addition, CMIs (including private banks) should not enter into arrangements which may result in prospective investors paying different prices for the Notes.

The SFC Code requires that a CMI disclose complete and accurate information in a timely manner on the status of the order book and other relevant information it receives to targeted investors for them to make an informed decision. In order to do this, those Initial Purchasers in control of the order book should consider disclosing order book updates to all CMIs.

When placing an order for the Notes, private banks should disclose, at the same time, whether such order is placed other than on a "principal" basis (whereby it is deploying its own balance sheet for onward selling to investors). Private banks who do not provide such disclosure are hereby deemed to be placing their order on such a "principal" basis. Otherwise, such order may be considered to be an omnibus order pursuant to the SFC Code. Private banks should be aware that placing an order on a "principal" basis may require the relevant affiliated Initial Purchaser(s) (if any) to categorize it as a proprietary order and apply the "proprietary orders" requirements of the SFC Code to such order.

In relation to omnibus orders, when submitting such orders, CMIs (including private banks) that are subject to the SFC Code should disclose underlying investor information in respect of each order constituting the relevant omnibus order (failure to provide such information may result in that order being rejected). Underlying investor information in relation to omnibus orders should consist of:

- The name of each underlying investor;
- A unique identification number for each investor;
- Whether an underlying investor has any "Associations" (as used in the SFC Code);
- Whether any underlying investor order is a "Proprietary Order" (as used in the SFC Code);
- Whether any underlying investor order is a duplicate order.

Underlying investor information in relation to omnibus order should be sent to: *dl.asia.syndicate@asia.bnpparibas.com; bofa_dcm_syndicate_pb_orders@bofa.com; DCM.Omnibus@citi.com; hk_syndicate_omnibus@hsbc.com.hk; Asia-Syndicate@hk.sc.mufg.jp; synhk@sc.com*.

To the extent information being disclosed by CMIs and investors is personal and/or confidential in nature, CMIs (including private banks) agree and warrant: (A) to take appropriate steps to safeguard the transmission of such information to any OCs; and (B) that they have obtained the necessary consents from the underlying investors to disclose such information to any OCs. By submitting an order and providing such information to any OCs, each CMI (including private banks) further warrants that they and the underlying investors have understood and consented to the collection, disclosure, use and transfer of such information by any OCs and/or any other third parties as may be required by the SFC Code, including to the Company, relevant regulators and/or any other third parties as may be required by the SFC Code, for the purpose of complying with the SFC Code, during the bookbuilding process for this offering. CMIs that receive such underlying investor information are reminded that such information should be used only for submitting orders in this offering. The relevant Initial Purchaser may be asked to demonstrate compliance with their obligations under the SFC Code and may request other CMIs (including private banks) to provide evidence showing compliance with the obligations above (in particular, that the necessary consents have been obtained). In such event, other CMIs (including private banks) are required to provide the relevant Initial Purchaser with such evidence within the timeline requested.

Selling Restrictions

United States

The Notes have not been and will not be registered under the Securities Act and may not be offered or sold within the United States or to, or for the account or benefit of, U.S. persons except in certain transactions exempt from the registration requirements of the Securities Act. Terms used in this paragraph have the meanings given to them by Regulation S.

Each Initial Purchaser has agreed that, except as permitted by the Purchase Agreement, it will not offer or sell the Notes (i) as part of their distribution at any time or (ii) otherwise until 40 days after the later of the commencement of the offering of the Notes and the issue date, within the United States or to, or for the account or benefit of, U.S. persons, and it will have sent to each Initial Purchaser to which it sells the Notes (other than a sale pursuant to Rule 144A) during the distribution compliance period a confirmation or other notice setting forth the restrictions on offers and sales of the Notes within the United States or to, or for the account or benefit of, U.S. persons. Terms used in this paragraph have the meanings given to them by Regulation S.

The Notes are being offered and sold outside of the United States to non-U.S. persons in reliance on Regulation S. The Purchase Agreement provides that Initial Purchasers may directly or through their respective U.S. broker-dealer affiliates arrange for the offer and resale of Notes within the United States only to qualified institutional buyers in reliance on Rule 144A.

In addition, until 40 days after the commencement of the offering of the Notes, an offer or sale of Notes within the United States by a dealer that is not participating in the offering of the Notes may violate the registration requirements of the Securities Act if such offer or sale is made otherwise than in accordance with Rule 144A.

European Economic Area

In relation to each Member State of the EEA, each Initial Purchaser has represented and agreed that it has not made and will not make an offer of Notes which are the subject of the offering contemplated by this Offering Circular to the public in that Member State other than:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Regulation), subject to obtaining the prior consent of the relevant Initial Purchaser or Initial Purchasers nominated by the Company for any such offer; or

(c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of Notes shall require the Company or any Initial Purchaser to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer of Notes to the public" in relation to any Notes in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the Notes to be offered so as to enable an investor to decide to purchase or subscribe for the Notes, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129, as amended.

United Kingdom

Each Initial Purchaser has represented and agreed that:

(a) it has only communicated or caused to be communicated, and will only communicate or cause to be communicated, an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) received by it in connection with the issue or sale of any Notes in circumstances in which Section 21(1) of the FSMA does not apply to the Company; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to any Notes in, from or otherwise involving the United Kingdom.

Switzerland

This Offering Circular is not intended to constitute an offer or solicitation to purchase or invest in the Notes described herein. The Notes may not be publicly offered, sold or advertised, directly or indirectly, in, into or from Switzerland, and will not be listed on the SIX Swiss Exchange ("SIX") or on any other exchange or regulated trading facility in Switzerland. Neither this Offering Circular nor any other offering or marketing material relating to the Notes constitutes a prospectus as such term is understood pursuant to article 652a or article 1156 of the Swiss Code of Obligations or a listing prospectus within the meaning of the listing rules of the SIX or any other regulated trading facility in Switzerland or a simplified prospectus or a prospectus as such term is defined in the Swiss Collective Investment Scheme Act, and neither this Offering Circular nor any other offering or marketing material relating to the Notes may be publicly distributed or otherwise made publicly available in Switzerland. Neither this Offering Circular nor any other offering or marketing material relating to the offering, nor the Company or the Notes have been or will be filed with or approved by any Swiss regulatory authority. The Notes are not subject to the supervision by any Swiss regulatory authority, e.g., the Swiss Financial Markets Supervisory Authority, and investors in the Notes will not benefit from protection or supervision by such authority.

Hong Kong

Each Initial Purchaser has represented and agreed that:

(a) it has not offered or sold and will not offer or sell in Hong Kong, by means of any document, any Notes other than (a) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong (the "SFO") and any rules made under the SFO; or (b) in other circumstances which do not result in the document being a "prospectus" as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong (the "C(WUMP)O") or which do not constitute an offer to the public within the meaning of the C(WUMP)O; and

(b) it has not issued or had in its possession for the purposes of issue, and will not issue or have in its possession for the purposes of issue, whether in Hong Kong or elsewhere, any advertisement, invitation or document relating to the Notes, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong), other than with respect to the Notes which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" as defined in the SFO and any rules made under the SFO.

Japan

The Notes have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended, the "Financial Instruments and Exchange Act"). Accordingly, each Initial Purchaser has represented and agreed that it has not, directly or indirectly, offered or sold and will not, directly or indirectly, offer or sell any Notes in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan) or to others for re-offering or re-sale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and other relevant laws and regulations of Japan.

Singapore

Each Initial Purchaser has acknowledged that this Offering Circular has not been and will not be registered as a prospectus with the Monetary Authority of Singapore under the Securities and Futures Act 2001 of Singapore, as modified or amended from time to time (the "SFA"). Accordingly, each Initial Purchaser has represented and agreed that it has not offered or sold any Notes or caused the Notes to be made the subject of an invitation for subscription or purchase and will not offer or sell any Notes or cause the Notes to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this Offering Circular or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the Notes, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor (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 any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA and (where applicable) Regulation 3 of the Securities and Futures (Classes of Investors) Regulations 2018 of Singapore, or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

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

(a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in 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 months after that corporation or that trust has acquired the Notes pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor or to a relevant person or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(c)(ii) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018 of Singapore.

Italy

The offering of the Notes has not been registered with the *Commissione Nazionale per le Società e la Borsa* ("CONSOB") pursuant to Italian securities legislation and, accordingly, the Notes may not be offered, sold or delivered, nor may copies of this Offering Circular or of any other document relating to any Notes be distributed in Italy, except in accordance with any Italian securities, tax and other applicable laws and regulations.

Each Initial Purchaser has represented and agreed that it has not offered, sold or delivered, and will not offer, sell or deliver, any Notes or distribute any copy of this Offering Circular or any other document relating to the Notes in Italy except:

(a) to qualified investors (*investitori qualificati*), as defined pursuant to Article 100 of Legislative Decree No. 58 of 24 February 1998 (the "Financial Services Act") and Article 34-ter, paragraph 1, letter (b) of CONSOB Regulation No. 11971 of 14 May 1999 (the "Issuers Regulation"), all as amended from time to time; or

(b) in other circumstances which are exempted from the rules on public offerings pursuant to Article 100 of the Financial Services Act and Issuers Regulation.

In any event, any offer, sale or delivery of the Notes or distribution of copies of this Offering Circular or any other document relating to the Notes in Italy under paragraphs (a) or (b) above must be:

(i) made by an investment firm, bank or financial intermediary permitted to conduct such activities in Italy in accordance with the Financial Services Act, Legislative Decree No. 385 of 1 September 1993 (the "Banking Act") and CONSOB Regulation No. 20307 of 15 February 2018, all as amended from time to time;

(ii) in compliance with Article 129 of the Banking Act, as amended from time to time, and the implementing guidelines of the Bank of Italy, as amended from time to time; and

(iii) in compliance with any other applicable laws and regulations, including any limitation or requirement which may be imposed from time to time by CONSOB or the Bank of Italy or other competent authority.

Korea

Each Initial Purchaser severally but not jointly has represented, warranted and agreed that the Notes have not been and will not be registered with the Financial Services Commission of Korea (the "FSC") under the Financial Investment Services and Capital Markets Act of Korea (the "FSCMA"), as amended, and accordingly the Notes may not be offered, sold or delivered, directly or indirectly, in Korea or to, or for the account or benefit of, any Korean resident (as such term is defined in the Foreign Exchange Transaction Act of Korea and its Presidential Decree) at the time of issuance of the Notes, except (i) if Article 2-2-2, Paragraph 2, Item 3 of the Regulation on Issuance and Public Disclosure, Etc. of Securities of Korea is applicable, the Notes may be offered, sold or delivered to a Korean Qualified Institutional Buyer (a "Korean QIB") as specified in Article 2-2, Paragraph 2, Item 4 of the above-mentioned regulation and who is registered with the Korea Financial Investment Association as a Korean QIB, provided that at least 80% of the aggregate issue amount of the Notes shall be allocated to non-residents of Korea (as such term is defined in the Foreign Exchange Transaction Act of Korea and its Presidential Decree) (which applies only to the Notes acquired from the Issuer or any Initial Purchaser at the time of issuance of the Notes), and the other requirements as set forth in Article 2-2-2, Paragraph 2, Item 3 referred to above are satisfied, or (ii) as otherwise permitted by applicable Korean laws and regulations. Each Initial Purchaser severally but not jointly has undertaken to ensure that any securities dealer to which it sells Notes confirms that it is purchasing such Notes as principal and agrees with such Initial Purchaser that it will comply with the restrictions described above.

TRANSFER RESTRICTIONS

Because of the following restrictions, purchasers are advised to consult with legal counsel prior to making any offer, resale, pledge or other transfers of the Notes.

Transfer Restrictions under Korean Law

Each purchaser of the Notes, by accepting delivery of this Offering Circular, will be deemed to have represented, warranted and agreed as follows:

(a) The Notes have not been and will not be registered with the FSC under the FSCMA, as amended. Accordingly, the Notes may not be offered, sold or delivered, directly or indirectly, in Korea or to, or for the account or benefit of, any Korean resident (as such term is defined in the Foreign Exchange Transaction Act of Korea and its Presidential Decree) or to others for re-offering or resale, directly or indirectly, in Korea or to any Korean resident, except as otherwise permitted under applicable Korean laws and regulations. In addition, for a period of one year from the date of issuance of the Notes, the Notes may not be transferred to any Korean resident other than a Korean Qualified Institutional Buyer (a "Korean QIB") as specified in Article 2-2, Paragraph 2, Item 4 of the Regulation on Issuance and Public Disclosure, Etc. of Securities of Korea and who is registered with the Korean Financial Investment Association as a Korean QIB, provided that the Notes are issued as straight bonds other than equity-linked bonds, such as convertible bonds, bonds with warrants and exchangeable bonds, and all of the following requirements under Article 2-2-2, Paragraph 2, Item 3 of the above regulation are satisfied: (1) the Notes shall be issued in a currency other than Won and the principal and interest thereof shall be paid in a currency other than Won, (2) at least 80% of the aggregate issue amount of the Notes shall be allocated to non-residents of Korea (as such term is defined in the Foreign Exchange Transaction Act of Korea and its Presidential Decree) (which applies only to the Notes acquired from the Company or any Initial Purchaser at the time of issuance of the Notes), (3) the Notes shall be those listed on a major overseas securities market specified by the governor of the Financial Supervisory Service of Korea, those registered with or reported to a foreign financial investment supervisory agency of the country in which the above securities market is established, or those for which any other procedure that may be deemed a public offering is completed, (4) measures shall be taken to state the condition that the Notes shall not be transferred to any Korean resident other than Korean QIBs at the time of issuance or within one year from the date of issuance of the Notes on the face of such Notes (limited to the case where any physical instrument is issued), the purchase agreement and offering documents and (5) the Company and the manager(s) (limited to the case where any manager is appointed) shall take measures under foregoing items (1) through (4) and the Company and the managers shall severally or jointly preserve evidential documents in relation thereto, or (ii) as otherwise permitted by applicable Korean laws and regulations.

(b) The Notes will bear legends to the following effect:

THE NOTES HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKETS ACT OF KOREA. ACCORDINGLY, THE NOTES MAY NOT BE OFFERED, SOLD OR DELIVERED, DIRECTLY OR INDIRECTLY, IN KOREA OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, ANY RESIDENT OF KOREA (AS SUCH TERM IS DEFINED UNDER THE FOREIGN EXCHANGE TRANSACTIONS ACT OF KOREA AND ITS PRESIDENTIAL DECREE) OR TO OTHERS FOR RE-OFFERING OR RESALE, DIRECTLY OR INDIRECTLY, IN KOREA OR TO ANY RESIDENTS OF KOREA,

EXCEPT AS OTHERWISE PERMITTED UNDER APPLICABLE KOREAN LAWS AND REGULATIONS. IN ADDITION, DURING THE FIRST YEAR AFTER THE ISSUANCE OF THE NOTES, THE NOTES MAY NOT BE TRANSFERRED TO ANY RESIDENT OF KOREA OTHER THAN A KOREAN QUALIFIED INSTITUTIONAL BUYER (A "KOREAN QIB," AS DEFINED IN THE REGULATION ON ISSUANCE AND PUBLIC DISCLOSURE, ETC. OF SECURITIES OF KOREA) WHO IS REGISTERED WITH THE KOREA FINANCIAL INVESTMENT ASSOCIATION AS A KOREAN QIB, PROVIDED THAT THE AMOUNT OF THE NOTES ACQUIRED BY SUCH KOREAN QIBS IN THE PRIMARY MARKET IS LIMITED TO NO MORE THAN 20% OF THE AGGREGATE ISSUE AMOUNT OF THE NOTES.

Other Transfer Restrictions Applicable to the Notes

The Notes have not been and will not be registered under the Securities Act or any state securities laws and, subject to certain exceptions, may not be offered or sold directly or indirectly within the United States or to or for the account or benefit of U.S. persons, as defined in Regulation S. The Notes may be offered for sale only (i) in the United States, to QIBs within the meaning of, and in reliance on, Rule 144A or another available exemption from, or in a transaction not subject to, the registration requirements of the Securities Act; or (ii) outside the United States to non-U.S. persons in reliance on, and in accordance with, Regulation S, in each case, in compliance with applicable laws, regulations and directives.

Each purchaser of the Notes will be deemed to have represented and agreed as follows (terms used in this paragraph that are defined in Rule 144A or Regulation S under the Securities Act are used herein as defined therein):

1. The purchaser (A)(i) is a qualified institutional buyer, (ii) is aware that the sale to it is being made in reliance on Rule 144A and (iii) is acquiring the Notes for its own account or for the account of a qualified institutional buyer or (B) is a non-U.S. person purchasing the Notes in an offshore transaction pursuant to Regulation S.

2. The purchaser understands that the Notes are being offered in a transaction not involving any public offering in the United States within the meaning of the Securities Act, that the Notes have not been and will not be registered under the Securities Act and that, in the event of Notes sold in reliance on Rule 144A, if in the future it decides to offer, resell, pledge or otherwise transfer any of the Notes, such Notes may be offered, resold, pledged or otherwise transferred only (A)(i) to the Company, (ii) to a person whom the seller reasonably believes is a qualified institutional buyer in a transaction meeting the requirements of Rule 144A, (iii) to a non-U.S. person in an offshore transaction meeting the requirements of Rule 903 or Rule 904 under the Securities Act, (iv) pursuant to an exemption from registration under the Securities Act provided by Rule 144 under the Securities Act (if available), or (v) pursuant to another exemption from the Securities Act, provided that, as a condition to the registration of the transfer thereof, the Company or the Fiscal Agent may require the delivery of any documents, including an opinion of counsel that it, in its sole discretion, may deem necessary or appropriate to evidence compliance with such exemption, or (B) pursuant to an effective registration statement under the Securities Act, and, in each of such cases, in accordance with any applicable securities laws of any state of the United States. The purchaser will, and each subsequent holder is required to, notify any subsequent purchaser of the Notes from it of the resale restrictions referred to in (A) above.

3. The purchaser understands that the Notes will, unless the Company determines otherwise in compliance with applicable law, bear a legend substantially to the following effect:

THIS SECURITY HAS NOT BEEN REGISTERED UNDER THE U.S. SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”). THE HOLDER HEREOF, BY PURCHASING THIS SECURITY, AGREES FOR THE BENEFIT OF SK HYNIX INC. (THE “COMPANY”) THAT THIS SECURITY MAY BE OFFERED, RESOLD, PLEDGED OR OTHERWISE TRANSFERRED ONLY (A)(i) TO THE COMPANY, (ii) TO A PERSON WHOM THE SELLER REASONABLY BELIEVES IS A QUALIFIED INSTITUTIONAL BUYER, AS DEFINED IN RULE 144A UNDER THE SECURITIES ACT, IN A TRANSACTION MEETING THE REQUIREMENTS OF RULE 144A UNDER THE SECURITIES ACT, (iii) TO A NON-U.S. PERSON IN AN OFFSHORE TRANSACTION MEETING THE REQUIREMENTS OF RULE 903 OR 904 OF REGULATION S UNDER THE SECURITIES ACT, (iv) PURSUANT TO AN EXEMPTION FROM REGISTRATION UNDER THE SECURITIES ACT PROVIDED BY RULE 144 UNDER THE SECURITIES ACT (IF AVAILABLE) OR (v) PURSUANT TO ANOTHER EXEMPTION FROM THE SECURITIES ACT, PROVIDED THAT, AS A CONDITION TO THE REGISTRATION OF THE TRANSFER THEREOF, THE COMPANY OR THE FISCAL AGENT MAY REQUIRE THE DELIVERY OF ANY DOCUMENTS, INCLUDING AN OPINION OF COUNSEL THAT IT, IN ITS SOLE DISCRETION, MAY DEEM NECESSARY OR APPROPRIATE TO EVIDENCE COMPLIANCE WITH SUCH EXEMPTION, OR (B) PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT, AND, IN EACH OF SUCH CASES IN ACCORDANCE WITH ANY APPLICABLE SECURITIES LAWS OF ANY STATE OF THE UNITED STATES. THE HOLDER WILL, AND EACH SUBSEQUENT HOLDER IS REQUIRED TO, NOTIFY ANY SUBSEQUENT PURCHASER OF THE SECURITY FROM IT OF THE RESALE RESTRICTIONS REFERRED TO IN (A) ABOVE.

4. The purchaser understands that the offer or sale of the Notes sold in reliance on Regulation S may not be made to a U.S. person or for the account or benefit of a U.S. person (other than a distributor), until the expiration of 40 days after the later of the commencement of this offering and the completion of the distribution of the Notes, and unless otherwise agreed by the Company, will bear a legend substantially to the following effect:

   THIS SECURITY (OR ITS PREDECESSOR) WAS ORIGINALLY ISSUED IN A TRANSACTION EXEMPT FROM REGISTRATION UNDER THE UNITED STATES SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”), AND MAY NOT BE TRANSFERRED IN THE UNITED STATES OR TO, OR FOR THE ACCOUNT OR BENEFIT OF, ANY U.S. PERSON EXCEPT PURSUANT TO AN AVAILABLE EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND ALL APPLICABLE STATE SECURITIES LAWS. TERMS USED ABOVE HAVE THE MEANINGS GIVEN TO THEM IN REGULATION S UNDER THE SECURITIES ACT.

   PRIOR TO THE EXPIRATION OF 40 DAYS AFTER THE LATER OF THE COMMENCEMENT OF THE OFFERING OF THE NOTES AND THE LATEST CLOSING DATE (THE “DISTRIBUTION COMPLIANCE PERIOD”), THE NOTES MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED TO ANY U.S. PERSON OUTSIDE THE UNITED STATES OR ANY PERSON IN THE UNITED STATES. EACH HOLDER AND BENEFICIAL OWNER, BY ITS ACCEPTANCE OF THE NOTES EVIDENCED HEREBY, REPRESENTS THAT IT UNDERSTANDS AND AGREES TO THE FOREGOING AND FOLLOWING RESTRICTIONS.

THE FOREGOING PARAGRAPH WILL BE NO LONGER EFFECTIVE AFTER THE END OF THE DISTRIBUTION COMPLIANCE PERIOD WITH RESPECT TO THE NOTES, AFTER WHICH THE NOTES EVIDENCED HEREBY WILL NO LONGER BE SUBJECT TO THE RESTRICTIONS SET FORTH THEREIN, PROVIDED THAT AT SUCH TIME AND THEREAFTER THE OFFER OR SALE OF THE NOTES EVIDENCED HEREBY WOULD NOT BE RESTRICTED UNDER ANY APPLICABLE SECURITIES LAWS OF THE UNITED STATES OR OF THE STATES OR TERRITORIES OF THE UNITED STATES.

5. The Company, the Registrar, the Initial Purchasers and their affiliates, and others will rely upon the truth and accuracy of the foregoing acknowledgments, representations and agreements. If it is acquiring any Notes for the account of one or more QIBs, it represents that it has sole investment discretion with respect to each such account and that it has full power to make the foregoing acknowledgments, representations and agreements on behalf of each such account.

6. It understands that the Notes offered in reliance on Rule 144A will be represented by the Restricted Global Note. Before any interest in the Restricted Global Note may be offered, sold, pledged or otherwise transferred to a person who takes delivery in the form of an interest in the Unrestricted Global Note, it will be required to provide a Transfer Agent with a written certification (in the form provided in the Fiscal Agency Agreement) as to compliance with applicable securities laws.

Prospective purchasers are hereby notified that sellers of the Notes may be relying on the exemption from the provisions of Section 5 of the Securities Act provided by Rule 144A.

LEGAL MATTERS

Cleary Gottlieb Steen & Hamilton LLP, U.S. counsel to the Company, and Linklaters LLP, U.S. counsel to the Initial Purchasers, will pass upon certain legal matters as to United States law relating to the Notes. Shin & Kim LLC, the Company's Korean counsel, will pass upon certain matters as to Korean law for the Company. Cleary Gottlieb Steen & Hamilton LLP and Linklaters LLP may rely as to all matters of Korean law on Shin & Kim LLC. Shin & Kim LLC may rely on Cleary Gottlieb Steen & Hamilton LLP as to all matters of U.S. law.

INDEPENDENT ACCOUNTANTS

The consolidated financial statements of the Company as of and for the years ended December 31, 2021 and 2020 included in this Offering Circular have been audited by Samil PricewaterhouseCoopers, independent accountants, as stated in their report appearing herein.

With respect to the unaudited consolidated interim financial statements of the Company as of September 30, 2022 and for the three- and nine-month periods ended September 30, 2022 and 2021 included in this Offering Circular, Samil PricewaterhouseCoopers reported that they have applied limited procedures in accordance with professional standards for a review of such information. However, the separate report dated November 11, 2022 appearing herein states that they did not audit and they do not express an opinion on such interim financial information. Accordingly, the degree of reliance on their report on such information should be restricted in light of the limited nature of the review procedures applied.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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Report on Review of Consolidated Interim Financial Statements

(English Translation of a Report Originally Issued in Korean)

To the Shareholders and Board of Directors of
SK hynix Inc.

Reviewed Financial Statements

We have reviewed the accompanying consolidated interim financial statements of SK hynix Inc. and its subsidiaries (collectively referred to as the “Group”). These financial statements consist of the consolidated interim statement of financial position of the Group as at September 30, 2022, and the related consolidated interim statements of comprehensive income for the three-month and nine-month periods ended September 30, 2022 and 2021, and consolidated interim statements of changes in equity and cash flows for the nine-month periods ended September 30, 2022 and 2021, and a summary of significant accounting policies and other explanatory notes, expressed in Korean won.

Management’s Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated interim financial statements in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS) 1034 *Interim Financial Reporting,* and for such internal control as management determines is necessary to enable the preparation of consolidated interim financial statements that are free from material misstatement, whether due to fraud or error.

Auditors’ Responsibility

Our responsibility is to issue a report on these consolidated interim financial statements based on our review.

We conducted our review in accordance with quarterly or semi-annual review standards established by the Securities and Futures Commission of the Republic of Korea. A review of interim financial information consists of making inquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures. A review is substantially less in scope than an audit conducted in accordance with Korean Standards on Auditing and consequently does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

Conclusion

Based on our review, nothing has come to our attention that causes us to believe that the accompanying consolidated interim financial statements are not presented fairly, in all material respects, in accordance with Korean IFRS 1034 *Interim Financial Reporting*.

Other Matters

We have audited the consolidated statement of financial position of the Group as at December 31, 2021, and the related consolidated statements of comprehensive income, changes in equity and cash flows for the year then ended, in accordance with Korean Standards on Auditing. We expressed an unqualified opinion on those consolidated financial statements, not presented herein, in our audit report dated March 11, 2022. The consolidated statement of financial position as at December 31, 2021, presented herein for comparative purposes, is consistent, in all material respects, with the above audited statement of financial position as at December 31, 2021.

Review standards and their application in practice vary among countries. The procedures and practices used in the Republic of Korea to review such financial statements may differ from those generally accepted and applied in other countries.

/s/ Samil PricewaterhouseCoopers

Seoul, Korea
November 11, 2022

This report is effective as of November 11, 2022, the review report date. Certain subsequent events or circumstances, which may occur between the review report date and the time of reading this report, could have a material impact on the accompanying consolidated interim financial statements and notes thereto. Accordingly, the readers of the review report should understand that there is a possibility that the above review report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

SK hynix Inc. and Subsidiaries
Consolidated Interim Statements of Financial Position
September 30, 2022 and December 31, 2021

(In millions of Korean won)	Notes		September 30, 2022 (Unaudited)		December 31, 2021
Assets					
Current assets					
Cash and cash equivalents	5,6	₩	4,719,217	₩	5,057,982
Short-term financial instruments	5,6		568,249		474,637
Short-term investment assets	5,6		1,924,783		3,139,923
Trade receivables, net	5,6,7,31		8,519,642		8,267,111
Loans and other receivables, net	5,6,7,31		216,188		171,464
Inventories, net	8		14,664,974		8,916,605
Current tax assets			22,304		4,113
Other current assets	9		1,261,556		838,586
Other financial assets	5,6		-		30
			31,896,913		26,870,451
Non-current assets					
Investments in associates and joint ventures	10		1,551,631		1,410,428
Long-term investment assets	5,6,11		6,554,470		6,665,513
Loans and other receivables, net	5,6,7,31		356,205		339,517
Other financial assets	5,6,20		319,005		91,139
Property, plant and equipment, net	12,32		60,404,219		53,034,270
Right-of-use assets, net	13,31		1,758,255		1,597,344
Intangible assets, net	14		5,508,385		5,065,132
Investment property, net	15		1,260		164,197
Deferred tax assets			827,740		590,244
Employee benefit assets	19		261,206		428,962
Other non-current assets	9,31,32		106,511		129,277
			77,648,887		69,516,023
Total assets		₩	109,545,800	₩	96,386,474

SK hynix Inc. and Subsidiaries
Consolidated Interim Statements of Financial Position, Continued
September 30, 2022 and December 31, 2021

(In millions of Korean won)	Notes		September 30, 2022 (Unaudited)		December 31, 2021
Liabilities					
Current liabilities					
Trade payables	5,6,31	₩	2,476,315	₩	1,359,247
Other payables	5,6,23,31		5,744,001		4,640,677
Other non-trade payables	5,6,31		2,563,018		2,278,316
Borrowings	5,6,16,32,33		5,429,825		2,880,763
Provisions	18		487,319		10,167
Current tax liabilities			1,078,668		3,002,734
Lease liabilities	5,6,13,31,33		312,329		302,059
Other current liabilities	17		290,990		294,780
Other financial liabilities	5,6,20		650		613
			18,383,115		14,769,356
Non-current liabilities					
Long-term other payables	5,6		3,314,076		2,699,071
Other non-trade payables	5,6		65,428		32,433
Borrowings	5,6,16,32,33		16,591,648		14,743,046
Provisions	18		1,589		-
Defined benefit liabilities, net	19		119,395		1,200
Deferred tax liabilities			755,084		627,995
Lease liabilities	5,6,13,31,33		1,492,477		1,223,703
Other non-current liabilities	17		95,283		94,006
Other financial liabilities	5,6,20		4,519		4,606
			22,439,499		19,426,060
Total liabilities			40,822,614		34,195,416
Equity					
Equity attributable to owners of the Parent Company					
Capital stock	21		3,657,652		3,657,652
Capital surplus	21		4,336,170		4,334,643
Other equity	21,34		(2,315,171)		(2,294,562)
Accumulated other comprehensive income	22		2,762,757		675,271
Retained earnings	23		60,232,908		55,784,068
Total equity attributable to owners of the Parent Company			68,674,316		62,157,072
Non-controlling interests			48,870		33,986
Total equity			68,723,186		62,191,058
Total liabilities and equity		₩	109,545,800	₩	96,386,474

The above consolidated interim statements of financial position should be read in conjunction with the accompanying notes.

SK hynix Inc. and Subsidiaries
Consolidated Interim Statements of Comprehensive Income
Three-month and Nine-month periods ended September 30, 2022 and 2021

(In millions of Korean won, except per share information)

		Period Ended September 30			
		2022 (Unaudited)		2021 (Unaudited)	
	Notes	Three months	Nine months	Three Months	Nine months
Revenue	4,24,31	₩ 10,982,883	₩ 36,949,537	₩ 11,805,324	₩ 30,621,183
Cost of sales	26,31	7,110,221	21,324,758	5,974,270	17,722,137
Gross profit		3,872,662	15,624,779	5,831,054	12,899,046
Selling and administrative expense	25,26,31	2,217,102	6,916,988	1,659,233	4,708,230
Operating profit		1,655,560	8,707,791	4,171,821	8,190,816
Finance income	27	2,095,629	4,178,889	649,820	1,463,758
Finance expenses	27	2,064,165	4,615,888	274,108	1,080,315
Share of profit of equity-accounted investees	10	26,526	119,245	41,493	184,431
Other income	28	30,097	214,249	29,869	78,622
Other expenses	28	60,401	180,065	20,260	86,978
Profit before income tax		1,683,246	8,424,221	4,598,635	8,750,334
Income tax expense	29	580,593	2,461,820	1,283,383	2,454,019
Profit for the period		₩ 1,102,653	₩ 5,962,401	₩ 3,315,252	₩ 6,296,315
Other comprehensive income (loss)					
Item that will not be reclassified to profit or loss:					
Remeasurements of defined benefit liabilities, net of tax	19	(14,480)	(36,758)	(6,838)	(20,825)
Items that may be subsequently reclassified to profit or loss:					
Foreign operations – foreign currency translation differences, net of tax	22	977,252	1,884,216	475,308	823,918
Gain (loss) on valuation of derivatives, net of tax	22	(1,448)	9,228	513	10,264
Equity-accounted investees – share of other comprehensive income, net of tax	10,22	102,690	206,733	51,557	97,132
Other comprehensive income for the period, net of tax		1,064,014	2,063,419	520,540	910,489
Total comprehensive income for the period		₩ 2,166,667	₩ 8,025,820	₩ 3,835,792	₩ 7,206,804
Profit (loss) attributable to:					
Owners of the Parent Company		₩ 1,106,741	₩ 5,957,124	₩ 3,310,823	₩ 6,285,784
Non-controlling interests		(4,088)	5,277	4,429	10,531
Total comprehensive income attributable to:					
Owners of the Parent Company		₩ 2,162,438	₩ 8,007,852	₩ 3,829,176	₩ 7,193,099
Non-controlling interests		4,229	17,968	6,616	13,705
Earnings per share	30				
Basic earnings per share (in Korean won)		₩ 1,609	₩ 8,663	₩ 4,815	₩ 9,163
Diluted earnings per share (in Korean won)		₩ 1,609	₩ 8,661	₩ 4,813	₩ 9,159

The above consolidated interim statements of comprehensive income should be read in conjunction with the accompanying notes.

SK hynix Inc. and Subsidiaries
Consolidated Interim Statements of Changes in Equity
Nine-month periods ended September 30, 2022 and 2021

(In millions of Korean won)		Attributable to owners of the Parent Company							
	Notes	Capital stock	Capital surplus	Other equity	Accumulated other comprehensive income (loss)	Retained earnings	Total	Non-controlling interests	Total equity
Balance at January 1, 2021		₩ 3,657,652	₩ 4,143,736	₩ (2,503,122)	₩ (405,453)	₩ 46,995,728	₩ 51,888,541	₩ 20,556	₩ 51,909,097
Comprehensive income:									
Profit for the period		-	-	-	-	6,285,784	6,285,784	10,531	6,296,315
Remeasurements of defined benefit liabilities, net of tax	19	-	-	-	-	(20,825)	(20,825)	-	(20,825)
Other comprehensive income of associate, net of tax	10,22	-	-	-	97,132	-	97,132	-	97,132
Gain on valuation of derivatives	22	-	-	-	10,264	-	10,264	-	10,264
Foreign currency translation differences for foreign operations, net of tax	22	-	-	-	820,744	-	820,744	3,174	823,918
Total comprehensive income for the period		-	-	-	928,140	6,264,959	7,193,099	13,705	7,206,804
Transactions with owners of the Parent Company:									
Dividends paid	23	-	-	-	-	(800,282)	(800,282)	-	(800,282)
Disposal of treasury stock	21	-	191,247	206,308	-	-	397,555	-	397,555
Share-based payment transactions	34	-	(340)	1,612	-	-	1,272	-	1,272
Total transactions with owners of the Parent Company		-	190,907	207,920	-	(800,282)	(401,455)	-	(401,455)
Balance at September 30, 2021 (Unaudited)		₩ 3,657,652	₩ 4,334,643	₩ (2,295,202)	₩ 522,687	₩ 52,460,405	₩ 58,680,185	₩ 34,261	₩ 58,714,446

SK hynix Inc. and Subsidiaries
Consolidated Interim Statements of Changes in Equity, Continued
Nine-month periods ended September 30, 2022 and 2021

(In millions of Korean won)

		Attributable to owners of the Parent Company							
	Notes	Capital stock	Capital surplus	Other equity	Accumulated other comprehensive income	Retained earnings	Total	Non-controlling interests	Total equity
Balance at January 1, 2022		₩ 3,657,652	₩ 4,334,643	₩ (2,294,562)	₩ 675,271	₩ 55,784,068	₩ 62,157,072	₩ 33,986	₩ 62,191,058
Comprehensive income:									
Profit for the period		-	-	-	-	5,957,124	5,957,124	5,277	5,962,401
Remeasurements of defined benefit liability, net of tax	19	-	-	-	-	(36,758)	(36,758)	-	(36,758)
Other comprehensive income of associate, net of tax	10,22	-	-	-	206,733	-	206,733	-	206,733
Gain on valuation of derivatives	22	-	-	-	9,228	-	9,228	-	9,228
Foreign currency translation differences for foreign operations, net of tax	22	-	-	-	1,871,525	-	1,871,525	12,691	1,884,216
Total comprehensive income for the period		-	-	-	2,087,486	5,920,366	8,007,852	17,968	8,025,820
Transactions with owners of the Parent Company:									
Dividends paid	23	-	-	-	-	(1,471,526)	(1,471,526)	(3,084)	(1,474,610)
Share-based payment transactions	34	-	-	4,587	-	-	4,587	-	4,587
Changes in terms and conditions of share-based payment	21,34	-	-	(26,927)	-	-	(26,927)	-	(26,927)
Disposal of treasury shares	21	-	1,527	1,731	-	-	3,258	-	3,258
Total transactions with owners of the Parent Company		-	1,527	(20,609)	-	(1,471,526)	(1,490,608)	(3,084)	(1,493,692)
Balance at September 30, 2022 (Unaudited)		₩ 3,657,652	₩ 4,336,170	₩ (2,315,171)	₩ 2,762,757	₩ 60,232,908	₩ 68,674,316	₩ 48,870	₩ 68,723,186

The above consolidated interim statements of changes in equity should be read in conjunction with the accompanying notes.

SK hynix Inc. and Subsidiaries
Consolidated Interim Statements of Cash Flows
Nine-month periods ended September 30, 2022 and 2021

(In millions of Korean won)	Note		2022 (Unaudited)		2021 (Unaudited)
Cash flows from operating activities					
Cash generated from operating activities	33	₩	16,763,330	₩	15,067,954
Interest received			35,371		13,764
Interest paid			(312,697)		(187,335)
Dividends received			19,744		22,817
Income tax paid			(2,910,028)		(893,776)
Net cash inflow from operating activities			13,595,720		14,023,424
Cash flows from investing activities					
Decrease in short-term financial instruments			1,549,687		2,197,054
Increase in short-term financial instruments			(1,617,034)		(2,254,666)
Decrease (increase) in short-term investment assets, net			1,267,232		(5,177,980)
Decrease in loans and other receivables			30,017		37,408
Increase in loans and other receivables			(63,916)		(32,598)
Decrease in other financial assets			29,350		210
Increase in other financial assets			-		(425)
Acquisition of investments in associates			(35,147)		(40,062)
Proceeds from disposal of investments in associates			201,454		-
Proceeds from disposal of long-term investment assets			3,701		21,113
Acquisition of long-term investment assets			(97,656)		(73,605)
Proceeds from disposal of property, plant and equipment			314,748		61,310
Acquisition of property, plant and equipment			(14,873,038)		(9,732,259)
Proceeds from disposal of intangible assets			1,016		2,073
Acquisition of intangible assets			(521,587)		(731,064)
Proceeds from disposal of investment property			263,211		-
Net cash outflow from acquisitions of business			(1,027,663)		-
Others			-		3,007
Net cash outflow from investing activities			(14,575,625)		(15,720,484)
Cash flows from financing activities					
Proceeds from borrowings			6,392,515		5,428,149
Repayments of borrowings			(4,611,893)		(3,073,321)
Dividends paid			(1,474,610)		(800,282)
Exercise stock-option			3		-
Repayments of lease liabilities			(212,727)		(243,808)
Disposal of treasury stock			9,518		7,574
Net cash inflow from financing activities			102,806		1,318,312
Effects of exchange rate changes on cash and cash equivalents			538,334		164,736
Net decrease in cash and cash equivalents			(338,765)		(214,012)
Cash and cash equivalents at the beginning of the period			5,057,982		2,975,989
Cash and cash equivalents at the end of the period		₩	4,719,217	₩	2,761,977

The above consolidated interim statements of cash flows should be read in conjunction with the accompanying notes.

1. General Information

(1) General information about SK hynix Inc. (the "Parent Company") and its subsidiaries (collectively the "Group") is as follows:

The Parent Company manufactures, distributes and sells semiconductor products. The Parent Company was established on October 15, 1949 and its shares have been listed on the Korea Exchange since 1996. The Parent Company's headquarters is located at 2091 Gyeongchung-daero, Bubal-eup, Icheon-si, Gyeonggi-do, South Korea, and the Group has manufacturing facilities in Icheon-si and Cheongju-si, South Korea, and Wuxi, Chongqing and Dalian, China.

As of September 30, 2022, the shareholders of the Parent Company are as follows:

Shareholder	Number of shares	Percentage of ownership (%)
SK Square Co., Ltd.	146,100,000	20.07
Other investors	541,551,040	74.39
Treasury shares	40,351,325	5.54
	728,002,365	100.00

The Parent Company's common shares and depositary receipts (DRs) are listed on the Stock Market of Korea Exchange and the Luxembourg Stock Exchange, respectively.

1. General Information, Continued

(2) Details of the Group's consolidated subsidiaries as of September 30, 2022 and December 31, 2021 are as follows:

Company	Location	Business	Ownership (%) 2022	Ownership (%) 2021
SK hyeng Inc.	Korea	Construction and service	100	100
SK hystec Inc.	Korea	Business support and service	100	100
HappyNarae Co., Ltd.	Korea	Industrial material supply	100	100
Happymore Inc.	Korea	Semiconductor apparel manufacturing, baking and services	100	100
SK hynix system ic Inc.	Korea	Semiconductor research and development and business support	100	100
SK hynix America Inc.	U.S.A	Semiconductor sales	97.74	97.74
SK hynix Deutschland GmbH	Germany	Semiconductor sales	100	100
SK hynix Asia Pte.Ltd.	Singapore	Semiconductor sales	100	100
SK hynix Semiconductor Hong Kong Ltd.	Hong Kong	Semiconductor sales	100	100
SK hynix Japan Inc.	Japan	Semiconductor sales	100	100
SK hynix U.K. Ltd.	U.K	Semiconductor sales	100	100
SK hynix Semiconductor India Private Ltd.[1]	India	Semiconductor sales	100	100
SK hynix Semiconductor (Shanghai) Co.,Ltd.	China	Semiconductor sales	100	100
SK hynix (Wuxi) Semiconductor Sales Ltd.	China	Semiconductor sales	100	100
SK hynix Semiconductor Taiwan Inc.	Taiwan	Semiconductor sales	100	100
SK hynix Semiconductor (China) Ltd.	China	Semiconductor manufacturing	100	100
SK hynix Semiconductor (Chongqing) Ltd.[2]	China	Semiconductor manufacturing	100	100
SK APTECH Ltd.	Hong Kong	Overseas investment	100	100
SK hynix Ventures Hong Kong Ltd.	Hong Kong	Overseas investment	100	100
SK hynix Italy S.r.l	Italy	Semiconductor research and development	100	100
SK hynix memory solutions America Inc.[12, 13]	U.S.A	Semiconductor research and development	99.96	100
SK hynix memory solutions Taiwan Ltd.	Taiwan	Semiconductor research and development	100	100
SK hynix memory solutions Eastern Europe, LLC.	Belarus	Semiconductor research and development	100	100
SK hynix (Wuxi) Investment Ltd. [3]	China	Overseas investment	100	100
SK hynix (Wuxi) Industry Development Ltd.[4]	China	Foreign hospital construction	100	100
SK hynix Happiness (Wuxi) Hospital Management Ltd.[4]	China	Foreign hospital operation	70	70
SK hynix cleaning (Wuxi) Ltd.[4]	China	Building maintenance	100	100
SK hynix system ic (Wuxi) Co., Ltd.[5]	China	Overseas Semiconductor manufacturing and sales	100	100
SUZHOU HAPPYNARAE Co., Ltd.[6]	China	Overseas industrial material supply	100	100
CHONGQING HAPPYNARAE Co. Ltd.[7]	China	Overseas industrial material supply	100	100
SK hynix (Wuxi) Education Technology Co.,Ltd[4]	China	Overseas Education	100	100
SkyHigh Memory Limited[5]	Hong Kong	Overseas Semiconductor manufacturing and sales	60	60
Gauss Labs Inc.	U.S.A	Overseas telecommunication of information	100	100
SkyHigh Memory China Limited[9]	China	Semiconductor sales support	60	60
SkyHigh Memory Limited Japan[9]	Japan	Semiconductor sales support	60	60
HappyNarae America LLC[6]	U.S.A	Overseas industrial material supply	100	100

HappyNarae Hungary Kft[6]	Hungary	Overseas industrial material supply	100	100
SK hynix Ventures America LLC	U.S.A	Overseas investment	100	100
SK hynix (Wuxi) Education Service Development Co., Ltd.[10]	China	Overseas education	100	100
SK hynix NAND Product Solutions Corp.[13]	U.S.A	Semiconductor sales and research and development	99.96	100
SK hynix NAND Product Solutions Taiwan Co., Ltd.[8, 13]	Taiwan	Semiconductor research and development and sales	99.96	100
SK hynix NAND Product Solutions Canada Ltd.[8, 13]	Canada	Semiconductor research and development	99.96	100
SK hynix NAND Product Solutions Mexico, S. DE R.L. DE C.V.[8, 13]	Mexico	Semiconductor research and development	99.96	100
SK hynix Semiconductor (Dalian) Co., Ltd.	China	Semiconductor manufacturing	100	100
SK hynix NAND Product Solutions UK Limited[8, 13]	U.K	Semiconductor sales	99.96	100
SK hynix NAND Product Solutions Israel Ltd.[8, 13]	Israel	Semiconductor sales	99.96	100
SK hynix NAND Product Solutions Japan G.K.[8, 13]	Japan	Semiconductor sales	99.96	100
SK hynix NAND Product Solutions International LLC[8, 13]	U.S.A	Semiconductor sales	99.96	100
SK hynix NAND Product Solutions Asia Pacific LLC[8, 13]	U.S.A	Semiconductor sales	99.96	100
SK hynix NAND Product Solutions Singapore Pte. Ltd.[8, 13]	Singapore	Semiconductor sales	99.96	100
SK hynix NAND Product Solutions Malaysia Sdn. Bhd.[8, 13]	Malaysia	Semiconductor sales	99.96	100
SK HYNIX NAND PRODUCT SOLUTIONS POLAND sp. z o.o.[8, 13]	Poland	Semiconductor research and development	99.96	100
SK hynix NAND Product Solutions (Beijing) Co., Ltd.[8, 13]	China	Semiconductor sales	99.96	100
SK Hynix NAND Product Solutions (Shanghai) Co., Ltd.[8,13]	China	Semiconductor research and development	99.96	100
Key Foundry Co., Ltd. [14]	Korea	Semiconductor sales and manufacturing	100	-
KEY FOUNDRY, INC.[14]	U.S.A	Semiconductor sales	100	-
KEY FOUNDRY SHANGHAI CO.,LTD.[14]	China	Semiconductor sales	100	-
KEY FOUNDRY LTD.[14]	Taiwan	Semiconductor sales	100	-
Intel NDTM US LLC[11]	U.S.A	Semiconductor research and development	-	-
Intel Semiconductor Storage Technology (Dalian) Ltd.[11]	China	Semiconductor manufacturing support	-	-
MMT (Money Market Trust)	Korea	Money Market Trust	100	100

[1] Subsidiary of SK hynix Asia Pte. Ltd.
[2] Subsidiary of SK APTECH Ltd.
[3] Subsidiary of SK hynix Semiconductor (China) Ltd.
[4] Subsidiary of SK hynix (Wuxi) Investment Ltd.
[5] Subsidiary of SK hynix system ic
[6] Subsidiary of HappyNarae Co., Ltd.
[7] Subsidiary of SUZHOU HAPPYNARAE Co., Ltd.
[8] Subsidiary of SK hynix NAND Product Solutions Corp.
[9] Subsidiary of SkyHigh Memory Limited
[10] Subsidiary of SK hynix (Wuxi) Education Technology Co., Ltd.
[11] Intel holds the legal ownership of these entities as of September 30, 2022 and the Group is expected to acquire ownership through the 2nd Closing of Intel NAND business acquisition expected in 2025. However,

the Group consolidated these entities as of September 30, 2022 since the Group determined that it has control over these entities.

[12] The Parent Company transferred its interests to SK hynix Nand Product Solutions Corp., its subsidiary, during the nine-month period ended September 30, 2022.

[13] The Parent Company's ownership interest decreased due to grants of stock options to SK hynix Nand Product Solutions Corp., its subsidiary, during the nine-month period ended September 30, 2022.

[14] The Group consolidated four entities upon completion of 100% equity acquisition, as of September 30, 2022.

(3) Changes in the Group's consolidated subsidiaries for the nine-month period ended September 30, 2022 are as follows:

Type	Company	Reason
Addition	Key Foundry Co., Ltd.	Acquisition of equity shares
Addition	KEY FOUNDRY, INC.	Acquisition of equity shares
Addition	KEY FOUNDRY SHANGHAI CO.,LTD.	Acquisition of equity shares
Addition	KEY FOUNDRY LTD.	Acquisition of equity shares

(4) Major subsidiaries' summarized statements of financial position as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

	September 30, 2022			December 31, 2021		
	Assets	Liabilities	Equity	Assets	Liabilities	Equity
SK hynix America Inc.	₩ 5,211,873	₩ 4,845,720	₩ 366,153	₩ 4,454,161	₩ 3,957,705	₩ 496,456
SK hynix Asia Pte. Ltd.	593,319	458,621	134,698	730,395	633,206	97,189
SK hynix Semiconductor Hong Kong Ltd.	442,122	250,351	191,771	584,669	421,736	162,933
SK hynix U.K. Ltd.	453,478	402,072	51,406	455,626	432,541	23,085
SK hynix Semiconductor Taiwan Inc.	297,111	288,952	8,159	580,449	550,944	29,505
SK hynix (Wuxi) Semiconductor Sales Ltd.	1,580,368	1,140,816	439,552	1,537,853	1,159,683	378,170
SK hynix Semiconductor (China) Ltd.	13,565,818	6,958,777	6,607,041	13,097,483	7,006,089	6,091,394
SK hynix Semiconductor (Chongqing) Ltd.	1,207,623	339,683	867,940	1,061,317	314,466	746,851
SK hynix NAND Product Solutions Corp. and subsidiaries	17,353,626	11,130,372	6,223,254	13,095,691	9,626,627	3,469,064

1. General Information, Continued

(5) Major subsidiaries' summarized statements of comprehensive income (loss) for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

	2022		2021	
	Revenue	Net profit (loss)	Revenue	Net profit (loss)
SK hynix America Inc.	₩ 15,666,175	₩ (207,565)	₩ 11,755,379	₩ 33,803
SK hynix Asia Pte. Ltd.	2,245,156	15,195	2,368,641	3,605
SK hynix Semiconductor Hong Kong Ltd.	1,709,419	(3,649)	1,906,632	3,424
SK hynix U.K. Ltd.	1,021,380	20,754	904,023	1,354
SK hynix Semiconductor Taiwan Inc.	1,924,888	(17,086)	2,212,993	2,029
SK hynix (Wuxi) Semiconductor Sales Ltd.	8,571,524	32,837	9,534,126	80,104
SK hynix Semiconductor (China) Ltd.	4,173,176	(537,085)	3,470,228	(72,047)
SK hynix Semiconductor (Chongqing) Ltd.	856,374	64,720	708,278	53,805
SK hynix NAND Product Solutions Corp. and subsidiaries	3,849,070	(871,693)	-	(44,199)

(6) There are no significant non-controlling interests to the Group as of September 30, 2022 and December 31, 2021.

2. Summary of Significant Accounting Policies

2.1 Basis of Financial Statements preparation

The Group maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS). The accompanying condensed consolidated interim financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

The Group's consolidated interim financial statements for the nine-month period ended September 30, 2022 have been prepared in accordance with Korean IFRS 1034 *Interim Financial Reporting*. These consolidated interim financial statements have been prepared in accordance with Korean IFRS which is effective or early adopted as of September 30, 2022.

2.1.1 New and amended standards or interpretations adopted by the Group

The Group has applied the following new and revised IFRS Standards that are effective from January 1, 2022.

(a) Amendments to Korean IFRS 1116 *Leases – Practical expedient for COVID-19-Related Rent Exemption, Concessions, Suspension available after June 30, 2021*

The application of a practical expedient that lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic has been extended to a lease reduction that affects lease payments due before September 30, 2022. A lessee has to consistently apply the practical expedient to eligible contracts with similar characteristics and in similar circumstances. The amendments do not have a significant impact on the consolidated financial statements.

(b) Amendments to Korean IFRS 1103 *Business Combination – Quotation of Conceptual Framework*

Although the definition of assets and liabilities to be recognized was amended to refer to the revised conceptual framework for financial reporting, it added exceptions to apply for liabilities and contingent liabilities within the scope of IFRS 1037 Provision and Contingent liabilities and Contingent assets and IFRS 2121 Levy and clarified that contingent assets are not recognized at acquisition date. The amendments do not have a significant impact on the consolidated financial statements.

(c) Amendments to Korean IFRS 1016 *Property, plant and equipment – Revenue from the Sale of Items produced before the asset is used in its intended manner*

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendments do not have a significant impact on the consolidated financial statements.

2. Summary of Significant Accounting Policies, Continued

2.1.1 New and amended standards or interpretations adopted by the Group, Continued

(d) Amendments to Korean IFRS 1037 *Provision and Contingent liabilities and Contingent assets – Onerous contracts : Cost of fulfilling a Contract*

When identifying an onerous contract, it was clarified that the scope of the cost of fulfilling a contract is the allocation of incremental costs for contract fulfillment and other costs directly related to cost of fulfilling a contract. The amendments do not have a significant impact on the consolidated financial statements.

(e) Annual Improvements to Korean IFRS 2018-2020

Annual Improvements to Korean IFRS 2018-2020 will be applied for annual periods beginning on or after January 1, 2022, and early application is permitted. The amendments do not have a significant impact on the consolidated financial statements.

- Korean IFRS 1101 *First-time Adoption of IFRS* : Subsidiary as a First-time Adopter
- Korean IFRS 1109 *Financial Instruments* : Fees in the '10% Test' for Derecognition of Financial Liabilities
- Korean IFRS 1041 *Agriculture* : Fair Value Measurement

2.1.2 New and amended standards or interpretations not yet adopted by the Group

The following new accounting standards and interpretations that have been published that are not mandatory for September 30, 2022 reporting periods and have not been early adopted by the Group.

(a) Amendments to Korean IFRS 1001 *Presentation of Financial Statements - Classification of Liability as Current or Non-current*

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the expectations of management. Also, the settlement of liability includes the transfer of the entity's own equity instruments, however, it would be excluded if an option to settle them by the entity's own equity instruments if compound financial instruments is met the definition of equity instruments and recognized separately from the liability. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the consolidated financial statements.

(b) Amendments to Korean IFRS 1001 *Presentation of Financial Statements - Disclosure of Accounting Policies*

The amendments to Korean IFRS 1001 define and require entities to disclose their material accounting policies. The IASB amended IFRS Practice Statement 2 Disclosure of Accounting Policies to provide guidance on how to apply the concept of materiality to accounting policy disclosures. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the consolidated financial statements.

2. Summary of Significant Accounting Policies, Continued

2.1.2 New and amended standards or interpretations not yet adopted by the Group, Continued

(c) Amendments to Korean IFRS 1008 *Accounting Policies, Changes in Accounting Estimates and Errors - Definition of Accounting Estimates*

The amendments define accounting estimates and clarify how to distinguish them from changes in accounting policies. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the consolidated financial statements.

(d) Amendments to Korean IFRS 1012 *Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction*

The amendments include an additional condition to the exemption to initial recognition of an asset or liability that a transaction does not give rise to equal taxable and deductible temporary differences at the time of the transaction. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the consolidated financial statements.

(e) Amendments to Korean IFRS 1117 *Insurance Contracts*

Korean IFRS 1117 establishes the principles for the recognition, measurement, presentation and disclosure of insurance contracts and supersedes IFRS 4 Insurance Contracts. The general model uses current assumptions to estimate the amount, timing and uncertainty of future cash flows and it explicitly measures the cost of that uncertainty. It takes into account market interest rates and the impact of policyholders' options and guarantees. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application for an entity applying Korean IFRS 1109 is permitted. The Group is in review for the impact of these amendments on the financial statements. The Group does not expect that these amendments have a significant impact on the consolidated financial statements.

2.2 Significant Accounting Policies

Significant accounting policies and method of computation used in the preparation of the consolidated interim financial statements are consistent with those of the consolidated annual financial statements for the year ended December 31, 2021, except for the changes due to the application of amendments and enactments of standards described in Note 2.1.1 and as described below.

2.2.1 Income tax expense

Income tax expense for the interim period is recognized based on management's best estimate of the weighted average annual income tax rate expected for the full financial year. The estimated average annual effective income tax rate is applied to the pre-tax income for the interim period.

3. Critical Accounting Estimates and Assumptions

The Group makes estimates and assumptions concerning the future. The estimates and assumptions are continuously assessed, considering historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. These resulting accounting estimates may differ from the actual results.

Significant accounting estimates and assumptions which are used to prepare consolidated interim financial statements can be adjusted according to changes in uncertainty due to COVID-19, and the ultimate impact of COVID-19 to the Group's business, financial status and management performance is currently unpredictable as of September 30, 2022.

Critical accounting estimates and assumptions made in the preparation of these consolidated interim financial statements are consistent with those applied in the preparation of the consolidated annual financial statements for the year ended December 31, 2021, except for the estimates used to determine the income tax expense.

4. Operating Segment Information

The Group has a single reportable segment that is engaged in the manufacture and sale of semiconductor products. The Chief Operating Decision Maker ("the CODM") of the Group reviews the operational results of the semiconductor business with the reporting information which is prepared in the same manner as the CODM reviews during the establishment of the Group's business strategy.

(1) The Group's non-current assets (excluding financial assets, loans and other receivables, investment in associates and joint ventures and deferred tax assets) information by region based on the location of the Parent Company and its subsidiaries as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022		December 31, 2021
Korea	₩	45,973,752	₩	40,474,770
China		21,488,221		19,484,394
Asia(other than China)		18,308		17,065
U.S.A.		543,113		426,723
Europe		16,440		16,230
	₩	68,039,834	₩	60,419,182

(2) For the nine-month period ended September 30, 2022, revenue of ₩4,332,591 million, ₩3,985,640 million, over 10% of the Group's revenue, are derived from external customers A and B, and for the nine-month period ended September 30, 2021 revenue of ₩3,496,722 million and ₩3,115,516 million, over 10% of the Group's revenue, were derived from external customers A and C.

5. Carrying Amounts of Financial Instruments by Categories

(1) Carrying amounts of financial assets by categories as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

	September 30, 2022	
	Financial assets at fair value through profit or loss	Financial assets at fair value through other comprehensive income or loss
Cash and cash equivalents	₩ -	₩ -
Short-term financial instruments	222,500	-
Short-term investment assets	1,924,783	-
Trade receivables[1]	-	476,068
Loans and other receivables	-	-
Other financial assets	-	-
Long-term investment assets	6,554,470	-
	₩ 8,701,753	₩ 476,068

(In millions of Korean won)

	September 30, 2022		
	Financial assets at amortized cost	Other financial assets	Total
Cash and cash equivalents	₩ 4,719,217	₩ -	₩ 4,719,217
Short-term financial instruments	345,749	-	568,249
Short-term investment assets	-	-	1,924,783
Trade receivables[1]	8,043,574	-	8,519,642
Loans and other receivables	572,393	-	572,393
Other financial assets	760	318,245	319,005
Long-term investment assets	-	-	6,554,470
	₩ 13,681,693	₩ 318,245	₩ 23,177,759

[1] The Group transferred certain portion of trade receivables, which are from specific customers, and derecognized the trade receivables from the financial statements as all the risks and rewards are substantially transferred. Accordingly, the Group recognized gain or loss on disposal of trade receivables.

5. Carrying Amounts of Financial Instruments by Categories, Continued

(1) Carrying amounts of financial assets by categories as of September 30, 2022 and December 31, 2021 are as follows, Continued:

(In millions of Korean won)

	December 31, 2021			
		Financial assets at fair value through profit or loss		Financial assets at fair value through other comprehensive income or loss
Cash and cash equivalents	₩	-	₩	-
Short-term financial instruments		222,500		-
Short-term investment assets		3,139,923		-
Trade receivables[1]		-		980,487
Loans and other receivables		-		-
Other financial assets		-		-
Long-term investment assets		6,665,513		-
	₩	10,027,936	₩	980,487

(In millions of Korean won)

	December 31, 2021					
		Financial assets at amortized cost		Other financial assets		Total
Cash and cash equivalents	₩	5,057,982	₩	-	₩	5,057,982
Short-term financial instruments		252,137		-		474,637
Short-term investment assets		-		-		3,139,923
Trade receivables[1]		7,286,624		-		8,267,111
Loans and other receivables		510,981		-		510,981
Other financial assets		30,076		61,093		91,169
Long-term investment assets		-		-		6,665,513
	₩	13,137,800	₩	61,093	₩	24,207,316

[1] The Group transferred certain portion of trade receivables, which are from specific customers, and derecognized the trade receivables from the financial statements as all the risks and rewards are substantially transferred. Accordingly, the Group recognized gain or loss on disposal of trade receivables.

5. Carrying Amounts of Financial Instruments by Categories, Continued

(2) Carrying amounts of financial liabilities by categories as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022
		Financial liabilities at amortized cost
Trade payables	₩	2,476,315
Other payables		9,058,077
Other non-trade payables[1]		2,628,446
Borrowings		22,021,473
Lease liabilities		1,804,806
Other financial liabilities		5,169
	₩	37,994,286

(In millions of Korean won)

		December 31, 2021				
		Financial liabilities at amortized cost		Other financial liabilities		Total
Trade payables	₩	1,359,247	₩	-	₩	1,359,247
Other payables		7,339,748		-		7,339,748
Other non-trade payables[1]		2,310,749		-		2,310,749
Borrowings		17,623,809		-		17,623,809
Lease liabilities		1,525,762		-		1,525,762
Other financial liabilities		4,517		702		5,219
	₩	30,163,832	₩	702	₩	30,164,534

Details of other non-trade payables as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)		September 30, 2022		December 31, 2021
Current				
Deposit payables	₩	10,281	₩	5,702
Accrued expenses		2,552,737		2,272,614
		2,563,018		2,278,316
Non-current				
Deposit payables		9,478		8,690
Long-term accrued expenses		55,950		23,743
		65,428		32,433
	₩	2,628,446	₩	2,310,749

6. Financial Risk Management

(1) Financial risk management
The Group's activities are exposed to a variety of financial risks: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. The consolidated interim financial statements do not include all the financial risk management policies and disclosures that are required in the consolidated annual financial statements; therefore, see the consolidated annual financial statements for full disclosure. There were no significant changes in risk management department and risk management policies subsequent to December 31, 2021.

(a) Market risk

(i) Foreign exchange risk
The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar, Euro, Chinese Yuan and Japanese Yen. Foreign exchange risk arises from future commercial transactions; recognized assets and liabilities in foreign currencies; and net investments in foreign operations.

Monetary foreign currency assets and liabilities as of September 30, 2022 are as follows:

(In millions of Korean won and millions of foreign currencies)

	Assets		Liabilities	
	Foreign currencies	Korean won equivalent	Foreign currencies	Korean won equivalent
USD	15,980	₩ 22,927,835	18,745	₩ 26,895,222
JPY	878	8,725	51,673	513,243
CNY	1,323	264,195	2,514	501,996
EUR	9	13,210	120	168,814

The Group enters into a currency swap contract and a currency interest rate swap contract to hedge interest rate risk and currency risk of foreign currency denominated bonds and borrowings as explained in Note 20.

When the exchange rate of the functional currency for each foreign currency fluctuates by 10% as of September 30, 2022, the impact of the change in the exchange rate on profit before income tax expenses are as follows:

(In millions of Korean won)

	If increased by 10%	If decreased by 10%
USD	₩ (253,647)	₩ 253,647
JPY	(50,452)	50,452
CNY	(23,780)	23,780
EUR	(15,560)	15,560

6. Financial Risk Management, Continued

(1) Financial risk management, Continued

(a) Market risk, Continued

(ii) Interest rate risk

Interest rate risk of the Group is defined as the risk that the interest expenses arising from borrowings will fluctuate due to changes in future market interest rate. The interest rate risk mainly arises through floating rate borrowings, and is partially offset by interests received from floating rate financial assets.

The Group is managing cash flow interest rate risk using floating-to-fixed cross currency interest rate swaps. These interest rate swaps have an economic effect of converting floating interest borrowings into fixed interest borrowings. Generally, the Group borrows at a floating interest rate and then swaps at a fixed rate. Under the swap agreement, the Group will settle the difference between fixed interest costs and the floating interest costs calculated according to the principal agreed upon for each counterparty and specific period (mainly quarterly).

The Group is partially exposed to the risk of changing net interest costs due to changes in interest rates as of September 30, 2022. The Group has signed a currency interest rate swap contract on floating interest rate borrowings of ₩717,400 million and an interest rate swap contract on floating interest rate borrowings of ₩143,480 million. Therefore, the changes in interest costs subject to fluctuation of interest rates do not have an impact on the profit before income tax for the nine-month period ended September 30, 2022.

As of September 30, 2022, If interest rates on borrowings and financial assets had been 100 basis points higher/lower with all other variables held constant, profit before income tax would have been ₩79,923 million(2021: ₩32,938 million) lower/higher, mainly as a result of higher/lower net interest costs on floating-rate borrowings and interest on floating-rate financial assets.

(iii) Price risk

The Group invests in equity and debt securities resulted from its business needs and the purpose of liquidity management. The Group's equity and debt securities are exposed to price risk as of September 30, 2022.

(b) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises mainly from operating and investing activities. In order to manage credit risk, the Group periodically evaluates the credit worthiness of each customer or counterparty through the analysis of its financial information, historical transaction records and other factors, based on which the Group establishes credit limits for each customer or counterparty.

6. Financial Risk Management, Continued

(1) Financial risk management, Continued

(i) Trade and other receivables
For each new customer, the Group individually analyzes its credit worthiness before standard payment and delivery terms and conditions are offered. In addition, the Group is continuously managing trade and other receivables by reevaluating the customer's credit worthiness and securing collaterals in order to limit its credit risk exposure.

The Group reviews at the end of each reporting period whether trade and other receivables are impaired and maintains credit insurance policies to manage credit risk exposure from oversea customers. The maximum exposure to credit risk as of September 30, 2022 is the carrying amount of trade and other receivables.

(ii) Other financial assets
Credit risk also arises from other financial assets such as cash and cash equivalents, short-term financial instruments, long-term and short-term investment assets, and short-term and long-term loans mainly due to the bankruptcy of each counterparty to those financial assets. The maximum exposure to credit risk as of September 30, 2022 is the carrying amount of those financial assets. The Group transacts only with banks and financial institutions with high credit ratings, and accordingly management does not expect any significant loss from non-performance by the counterparties.

(c) Liquidity risk
Liquidity risk is defined as the risk that the Group is unable to meet its short-term payment obligations on time due to deterioration of its business performance or inability to access financing. The Group forecasts its cash flow and liquidity status and sets action plans on a regular basis to manage liquidity risk proactively.

The Group invests surplus cash in interest-bearing current accounts, time deposits, and demand deposits choosing instruments with appropriate maturities or sufficient liquidity to provide sufficient head-room as determined by the above-mentioned forecasts.

6. Financial Risk Management, Continued

(2) Capital management
The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends to shareholders and proceeds and repayments of borrowings, and issue new shares or sell assets to reduce debt.

The debt-to-equity ratio and net borrowing ratio as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022		December 31, 2021
Total liabilities (A)	₩	40,822,614	₩	34,195,416
Total equity (B)		68,723,186		62,191,058
Cash and cash equivalents, and others[1] (C)		7,212,249		8,672,542
Total borrowings (D)		22,021,473		17,623,809
Debt-to-equity ratio (A/B)		59.40%		54.98%
Net borrowing ratio (D-C)/B		21.55%		14.39%

[1] Total amount of cash and cash equivalents, short-term investment assets and short-term financial instruments.

Under major loan contracts, the Group is obliged to comply with a certain level of quick ratio and debt ratio. Also the Group has to maintain predetermined holding ratio of certain assets and shares. The Group has complied with all of these conditions as of September 30, 2022.

(3) Fair value
Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in valuation techniques as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities that an entity can access at the measurement date.
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices)
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs)

6. Financial Risk Management, Continued

(3) Fair value, Continued

(a) The following table presents the Group's carrying amounts and fair values of financial instruments by categories, including their levels in the fair value hierarchy, as of September 30, 2022 and December 31, 2021:

(In millions of Korean won)

	Carrying amounts	September 30, 2022 Level 1	Level 2	Level 3	Total
Financial assets measured at fair value					
Short-term financial instruments	₩ 222,500	₩ -	₩ -	₩ 222,500	₩ 222,500
Short-term investment assets	1,924,783	-	1,924,783	-	1,924,783
Trade receivables[1]	476,068	-	476,068	-	476,068
Long-term investment assets	6,554,470	-	-	6,554,470	6,554,470
Other financial assets	318,245	-	318,245	-	318,245
	9,496,066	-	2,719,096	6,776,970	9,496,066
Financial assets not measured at fair value					
Cash and cash equivalents[2]	4,719,217	-	-	-	-
Short-term financial instruments[2]	345,749	-	-	-	-
Trade receivables[2]	8,043,574	-	-	-	-
Loans and other receivables[2]	572,393	-	-	-	-
Other financial assets[2]	760	-	-	-	-
	13,681,693	-	-	-	-
Total financial asset	₩ 23,177,759	₩ -	₩ 2,719,096	₩ 6,776,970	₩ 9,496,066
Financial liabilities not measured at fair value					
Trade payables[2]	2,476,315	-	-	-	-
Other payables[2]	9,058,077	-	-	-	-
Other non-trade payables[2]	2,628,446	-	-	-	-
Borrowings	22,021,473	-	20,920,840	-	20,920,840
Lease liabilities[2]	1,804,806	-	-	-	-
Other financial liabilities[2]	5,169	-	-	-	-
Total financial liabilities	₩ 37,994,286	₩ -	₩ 20,920,840	₩ -	₩ 20,920,840

[1] The Group transferred some of the trade receivables and majority of the risks and rewards to the customer. Accordingly, the Group derecognized trade receivables from the financial statement on the date of assets transfer and recognized gain or loss on disposal of trade receivables.
[2] The Group did not present fair values of financial assets and liabilities of which carrying amounts are considered to be a reasonable approximation of fair values.

6. Financial Risk Management, Continued

(3) Fair value, Continued

(a) The following table presents the Group's carrying amounts and fair values of financial instruments by categories, including their levels in the fair value hierarchy, as of September 30, 2022 and December 31, 2021, Continued:

(In millions of Korean won)

			December 31, 2021							
		Carrying amounts		Level 1		Level 2		Level 3		Total
Financial assets measured at fair value										
Short-term financial instruments	₩	222,500	₩	-	₩	-	₩	222,500	₩	222,500
Short-term investment assets		3,139,923		-		3,139,923		-		3,139,923
Trade receivables[1]		980,487		-		980,487		-		980,487
Long-term investment assets		6,665,513				-		6,665,513		6,665,513
Other financial assets		61,093		-		61,093		-		61,093
		11,069,516		-		4,181,503		6,888,013		11,069,516
Financial assets not measured at fair value										
Cash and cash equivalents[2]		5,057,982		-		-		-		-
Short-term financial instruments[2]		252,137		-		-		-		-
Trade receivables[2]		7,286,624		-		-		-		-
Loans and other receivables[2]		510,981		-		-		-		-
Other financial assets[2]		30,076		-		-		-		-
		13,137,800		-		-		-		-
Total financial asset	₩	24,207,316	₩	-	₩	4,181,503	₩	6,888,013	₩	11,069,516
Financial liabilities measured at fair value										
Other financial liabilities	₩	702	₩	-	₩	702	₩	-	₩	702
Financial liabilities not measured at fair value										
Trade payables[2]		1,359,247		-		-		-		-
Other payables[2]		7,339,748		-		-		-		-
Other non-trade payables[2]		2,310,749		-		-		-		-
Borrowings		17,623,809		-		17,491,195		-		17,491,195
Lease liabilities[2]		1,525,762		-		-		-		-
Other financial liabilities[2]		4,517		-		-		-		-
		30,163,832		-		17,491,195		-		17,491,195
Total financial liabilities	₩	30,164,534	₩	-	₩	17,491,897	₩	-	₩	17,491,897

[1] The Group transferred some of the trade receivables and majority of the risks and rewards to the customer. Accordingly, the Group derecognized trade receivables from the financial statement on the date of assets transfer and recognized gain or loss on disposal of trade receivables.

[2] The Group did not present fair values of financial assets and liabilities of which carrying amounts are considered to be a reasonable approximation of fair values.

6. Financial Risk Management, Continued

(3) Fair value, Continued

(b) The valuation techniques used to measure financial instruments with fair value level 2 and level 3 are the same as those applied by the Group in its consolidated financial statements as of and for the year ended December 31, 2021.

(c) There was no transfer between fair value hierarchy levels for the nine-month period ended September 30, 2022. The changes in financial assets classified as level 3 fair value measurements for the nine-month period ended September 30, 2022 are as follows:

(In millions of Korean won)

		Beginning Balance	Acquisition	Disposals	Loss on Valuation	Foreign Exchange Difference	Ending Balance
Financial assets:							
Short-term financial instruments	₩	222,500	-	-	-	-	222,500
Long-term investment assets	₩	6,665,513	98,945	(5,727)	(4,748)	(199,513)	6,554,470

7. Trade Receivables and Loans and Other Receivables

(1) Details of loans and other receivables as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022		December 31, 2021
Current				
Other receivables	₩	133,194	₩	118,120
Accrued income		3,395		2,252
Short-term loans		14,153		11,104
Short-term guarantee and other deposits		65,446		39,988
		216,188		171,464
Non-current				
Long-term other receivables		1,318		3
Long-term loans		285,058		292,300
Guarantee deposits		69,551		46,984
Others		278		230
		356,205		339,517
	₩	572,393	₩	510,981

(2) Trade receivables and loans and other receivables, net of provision for impairment, as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

	September 30, 2022					
		Gross amount		Provision for impairment		Carrying amount
Trade receivables	₩	8,520,716	₩	(1,074)	₩	8,519,642
Current loans and other receivables		217,462		(1,274)		216,188
Non-current loans and other receivables		357,552		(1,347)		356,205
	₩	9,095,730	₩	(3,695)	₩	9,092,035

(In millions of Korean won)

	December 31, 2021					
		Gross amount		Provision for impairment		Carrying amount
Trade receivables	₩	8,268,072	₩	(961)	₩	8,267,111
Current loans and other receivables		172,739		(1,275)		171,464
Non-current loans and other receivables		340,647		(1,130)		339,517
	₩	8,781,458	₩	(3,366)	₩	8,778,092

7. Trade Receivables and Loans and Other Receivables, Continued

(3) Details of provision for impairment

Changes in the provision for impairment of trade receivables for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	961	₩	44
Bad debt expense		-		866
Reversal		(4)		-
Foreign exchange difference		117		4
Ending balance	₩	1,074	₩	914

Changes in the provision for impairment of current loans and other receivables for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	1,275	₩	1,278
Reversal		(1)		(3)
Ending balance	₩	1,274	₩	1,275

Movements in the provision for impairment of non-current loans and other receivables for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	1,130	₩	1,154
Foreign exchange difference		217		94
Ending balance	₩	1,347	₩	1,248

8. Inventories

Details of inventories as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

	September 30, 2022		
	Acquisition cost	Inventory valuation allowance	Carrying amount
Merchandise	₩ 4,035	₩ (92)	₩ 3,943
Finished goods	3,869,058	(448,601)	3,420,457
Work-in-process	8,602,802	(116,191)	8,486,611
Raw materials	1,875,895	(34,131)	1,841,764
Supplies	885,878	(66,478)	819,400
Goods in transit	92,799	-	92,799
	₩ 15,330,467	₩ (665,493)	₩ 14,664,974

(In millions of Korean won)

	December 31, 2021		
	Acquisition cost	Inventory valuation allowance	Carrying amount
Merchandise	₩ 2,650	₩ (48)	₩ 2,602
Finished goods	1,357,610	(113,566)	1,244,044
Work-in-process	5,910,133	(104,981)	5,805,152
Raw materials	1,074,600	(34,393)	1,040,207
Supplies	771,626	(56,324)	715,302
Goods in transit	109,298	-	109,298
	₩ 9,225,917	₩ (309,312)	₩ 8,916,605

9. Other Current and Non-current Assets

Details of other current and non-current assets as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

	September 30, 2022	December 31, 2021
Current		
Advance payments	₩ 58,142	₩ 69,010
Prepaid expenses	351,869	177,125
Value added tax refundable	811,641	534,958
Contract assets	39,749	56,700
Others	155	793
	1,261,556	838,586
Non-current		
Long-term advance payments	45,592	68,347
Long-term prepaid expenses	46,331	54,451
Others	14,588	6,479
	106,511	129,277
	₩ 1,368,067	₩ 967,863

10. Investments in Associates and Joint Ventures

(1) General information of investments in associates and joint ventures is as follows:

Type	Investee	Location	Business
Associate and joint ventures	SK China Company Limited[1]	China	Consulting and investment
	SK South East Asia Investment Pte. Ltd.	Singapore	Consulting and investment
	Magnus Private Investment Co., Ltd[3]	Korea	Investment
	HITECH Semiconductor (Wuxi) Co., Ltd.	China	Manufacture of semiconductor parts
	Hystars Semiconductor (Wuxi) Co., Ltd.	China	Foundry factory construction
	Wuxi xinfa IC industry park., Ltd.	China	Development of science and technology complex
	SiFive Inc.[2]	U.S.A	Semiconductor design and manufacturing
	Others		

[1] Management of the Group is able to exercise significant influence over the entity by participating the Board of Directors. Accordingly, the investment in this investee has been classified as an associate.
[2] The Group is able to exercise significant influence through its right to appoint a director to the Board of Directors of investee. Accordingly, the investment has been classified as an associate.
[3] Recovery of W201,228 million investment principal occurred occurred during the nine-month period ended September 30, 2022.

(2) Details of investments in associates and joint ventures as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

	September 30, 2022			December 31, 2021	
Investee	Ownership (%)	Net asset value	Carrying amount	Ownership (%)	Carrying amount
Associate and Joint ventures:					
SK China Company Limited	11.87	₩ 376,447	₩ 429,044	11.87	₩ 343,987
SK South East Asia Investment Pte. Ltd.	20.00	414,673	414,673	20.00	347,317
Magnus Private Investment Co., Ltd	49.76	81,588	81,588	49.76	183,760
HITECH Semiconductor (Wuxi) Co., Ltd.	45.00	148,892	147,791	45.00	123,864
Hystars Semiconductor (Wuxi) Co., Ltd.	50.10	241,218	242,808	50.10	226,773
Wuxi xinfa IC industry park., Ltd	30.00	36,745	36,745	30.00	33,288
SiFive Inc.	7.28	24,072	50,205	7.55	43,499
Others		142,403	148,777		107,940
		₩ 1,466,038	₩ 1,551,631		₩ 1,410,428

10. Investments in Associates and Joint Ventures, Continued

(3) Changes in investments in associates and a joint ventures for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

	2022						
	Beginning balance	Acquisition	Disposal	Share of profit (loss)	Other equity movement	Dividend	Ending balance
SK China Company Limited	₩ 343,987	₩ -	₩ -	₩ 616	₩ 84,441	₩ -	₩ 429,044
SK South East Asia Investment Pte. Ltd.	347,317	-	-	(292)	67,648	-	414,673
Magnus Private Investment Co., Ltd	183,760	-	(201,228)	99,056	-	-	81,588
HITECH Semiconductor (Wuxi) Co., Ltd.	123,864	-	-	15,288	26,022	(17,383)	147,791
Hystars Semiconductor (Wuxi) Co., Ltd.	226,773	-	-	(158)	16,193	-	242,808
Wuxi xinfa IC industry park., Ltd	33,288	1,128	-	(132)	2,461	-	36,745
SiFive Inc.	43,499	-	-	1,911	4,795	-	50,205
Others	107,940	34,019	(226)	2,956	5,173	(1,085)	148,777
	₩ 1,410,428	₩ 35,147	₩ (201,454)	₩ 119,245	₩ 206,733	₩ (18,468)	₩ 1,551,631

(In millions of Korean won)

	2021					
	Beginning balance	Acquisition	Share of profit (loss)	Other equity movement	Dividend	Ending balance
SK China Company Limited	₩ 257,474	₩ -	₩ 114,427	₩ 32,681	₩ -	₩ 404,582
SK South East Asia Investment Pte. Ltd.	325,006	-	6,606	30,666	-	362,278
Magnus Private Investment Co., Ltd	150,840	-	45,069	-	-	195,909
HITECH Semiconductor (Wuxi) Co., Ltd.	113,430	-	11,334	9,508	(16,771)	117,501
Hystars Semiconductor (Wuxi) Co., Ltd.	195,423	-	8,087	19,037	-	222,547
Others	124,071	40,062	(1,092)	5,240	(1,129)	167,152
	₩ 1,166,244	₩ 40,062	₩ 184,431	₩ 97,132	₩ (17,900)	₩ 1,469,969

10. Investments in Associates and Joint Ventures, Continued

(4) Major associates and joint ventures' summarized statements of financial position as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

	September 30, 2022			
	Current assets	Non-current assets	Current liabilities	Non-current liabilities
SK China Company Limited	₩ 1,105,610	₩ 2,434,084	₩ 33,040	₩ 334,196
SK South East Asia Investment Pte. Ltd.	160,931	3,476,893	520,053	-
Magnus Private Investment Co., Ltd.	120,918	-	39,330	-
HITECH Semiconductor (Wuxi) Co., Ltd.	295,882	408,034	164,019	209,024
Hystars Semiconductor (Wuxi) Co., Ltd.	185,503	589,888	26,216	267,702

(In millions of Korean won)

	December 31, 2021			
	Current assets	Non-current assets	Current liabilities	Non-current liabilities
SK China Company Limited	₩ 982,428	₩ 1,841,336	₩ 52,979	₩ 314,823
SK South East Asia Investment Pte. Ltd.	132,551	2,841,200	411,228	-
Magnus Private Investment Co., Ltd.	241,256	514,986	132,763	439,719
HITECH Semiconductor (Wuxi) Co., Ltd.	279,304	357,074	129,193	225,942
Hystars Semiconductor (Wuxi) Co., Ltd.	176,141	580,937	20,139	287,473

(5) Major associates and joint ventures' summarized statements of comprehensive income (loss) for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

	2022		2021	
	Revenue	Net profit	Revenue	Net profit
SK China Company Limited	₩ 16,370	₩ 5,195	₩ 54,317	₩ 964,321
SK South East Asia Investment Pte. Ltd.	52,806	(1,460)	1,169	33,032
Magnus Private Investment Co., Ltd.	154,892	99,056	394,717	45,069
HITECH Semiconductor (Wuxi) Co., Ltd.	555,445	30,432	464,681	25,813
Hystars Semiconductor (Wuxi) Co., Ltd.	46,386	(316)	55,821	16,142

11. Long-term investment assets

Changes in the carrying amount of long-term investment assets for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	6,665,513	₩	6,139,627
Acquisition		98,945		74,920
Disposal		(5,727)		(5,337)
Profit and loss on valuation		(4,748)		6,611
Foreign exchange difference		(199,513)		34,690
Ending balance	₩	6,554,470	₩	6,250,511

12. Property, Plant and Equipment

(1) Changes in property, plant and equipment for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	53,034,270	₩	41,230,562
Acquisition		14,543,358		9,155,532
Acquisitions of business (Note 35)		343,923		-
Impairment		(7,691)		-
Disposal and retirement		(157,133)		(10,521)
Transfer		(12,662)		39,997
Depreciation		(9,540,805)		(7,029,772)
Foreign exchange difference		2,200,959		921,936
Ending balance	₩	60,404,219	₩	44,307,734

(2) Certain property, plant and equipment are pledged as collaterals for borrowings of the Group as of September 30, 2022 (Note 32).

13. Leases

(1) Changes in right-of-use assets for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	1,597,344	₩	1,707,645
Acquisition		351,878		105,904
Termination		(19,446)		(39,160)
Depreciation		(243,009)		(255,375)
Foreign exchange difference		71,488		62,451
Ending balance	₩	1,758,255	₩	1,581,465

(2) Changes in lease liabilities for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	1,525,762	₩	1,643,716
Acquisition		378,199		105,975
Termination		(19,446)		(39,243)
Interest expenses		27,540		24,255
Payments		(201,056)		(250,950)
Foreign exchange difference		93,807		87,086
Ending balance	₩	1,804,806	₩	1,570,839

14. Intangible Assets

Changes in intangible assets for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	5,065,132	₩	3,400,278
Acquisition		599,098		693,739
Acquisition of business (Note 35)		197,186		11
Disposal and retirement		(4,084)		(14,737)
Amortization		(675,990)		(576,471)
Impairments and reversal of impairments		(50,107)		(385)
Transfer		(26,896)		3,451
Others[1]		404,046		34,764
Ending balance	₩	5,508,385	₩	3,540,650

[1] Others include increase/decrease due to foreign exchange difference.

15. Investment Property

(1) Changes in investment property for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	164,197	₩	209,417
Depreciation		(1,011)		(1,252)
Disposal		(161,926)		-
Transfer[1]		-		(43,448)
Ending balance	₩	1,260	₩	164,717

[1] Certain investment assets were transferred to property, plant and equipment during the nine-month period ended September 30, 2021.

(2) The depreciation expense of ₩1,011 million was charged to cost of sales for the nine-month period ended September 30, 2022 (2021: ₩1,252 million).

(3) Rental income from investment property during the nine-month period ended September 30, 2022 was ₩11,162 million (2021: ₩11,045 million).

16. Borrowings

Details of borrowings as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022		December 31, 2021
Current				
Short-term borrowings	₩	1,901,840	₩	233,199
Current portion of long-term borrowings		2,548,416		2,087,796
Current portion of debentures		979,569		559,768
		5,429,825		2,880,763
Non-current				
Long-term borrowings		9,597,725		7,529,063
Debentures		6,993,923		7,213,983
		16,591,648		14,743,046
	₩	22,021,473	₩	17,623,809

17. Other Current and Non-current Liabilities

Details of other current and non-current liabilities as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022		December 31, 2021
Current				
Advance receipts	₩	27,413	₩	22,158
Unearned income		6,652		486
Withholdings		112,532		134,811
Contract liabilities		116,454		125,414
Others		27,939		11,911
		290,990		294,780
Non-current				
Other long-term employee benefits		95,282		94,005
Others		1		1
		95,283		94,006
	₩	386,273	₩	388,786

18. Provisions

(1) Changes in provisions for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

	2022				
	Beginning Balance	**Increase**	**Utilization**	**Reversal**	**Ending Balance**
Warranty	₩ 3,327	₩ 485,203	₩ (2,979)	₩ -	₩ 485,551
Emission allowances	6,840	5,307	-	(8,790)	3,357
	₩ 10,167	₩ 490,510	₩ (2,979)	₩ (8,790)	₩ 488,908

(In millions of Korean won)

	2021				
	Beginning Balance	**Increase**	**Utilization**	**Reversal**	**Ending Balance**
Warranty	₩ 3,015	₩ 652	₩ (320)	₩ -	₩ 3,347
Emission allowances	10,782	3,351	(9,727)	-	4,406
	₩ 13,797	₩ 4,003	₩ (10,047)	₩ -	₩ 7,753

(2) Provisions for warranty

The Group estimates the expected warranty costs based on historical results and records provisions for warranty. Regarding the durability issue of certain products sold in the prior years, the Group separately estimated and recorded warranty provisions for the amount expected to be paid for product replacement and other customer supporting activities.

18. Provisions, Continued

(3) Provision for emission allowances
The Group recognizes estimated future payment for the number of emission certificates required to settle the Group's obligation exceeding the actual number of certificates on hand as emission allowances according to the Act on Allocation and Trading of Greenhouse Gas Emission Permits.

(a) Details of the allocated amount of emission permits and the estimated amount of emission as of September 30, 2022 are as follows:

(In ten thousand tons CO2-eq)

	September 30, 2022
Allocated emission permits	545
Estimated volume of emission	540

(b) Changes in the emission permits rights for the nine-month period ended September 30, 2022 are as follows:

(In ten thousand tons CO2-eq)

	2021
Beginning balance	3
Allocated	538
Purchase	2
Submission	(511)
Borrowings	-
Banking	(7)
Disposal	(25)
Ending balance	-

19. Defined Benefit Liabilities

(1) Details of defined benefit liabilities as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022		December 31, 2021
Present value of defined benefit obligations	₩	2,742,825	₩	2,392,020
Fair value of plan assets		(2,884,636)		(2,819,782)
Net defined benefit liabilities	₩	(141,811)	₩	(427,762)
Defined benefit liabilities	₩	119,395	₩	1,200
Employee benefit assets[1]	₩	261,206	₩	428,962

[1] The Parent Company and certain subsidiaries' fair value of plan assets in excess of the present value of defined benefit obligations, presented as employee benefit assets, amounted to ₩261,206 million and ₩428,962 million as of September 30, 2022 and December 31, 2021, respectively.

(2) Changes in defined benefit obligations for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	2,392,020	₩	2,169,154
Current service cost		199,836		191,960
Interest cost		70,057		55,890
Transferred from associates		75		16
Benefits paid		(74,220)		(71,082)
Acquisition of business		154,948		-
Others		109		55
Ending balance	₩	2,742,825	₩	2,345,993

19. Defined Benefit Liabilities, Continued

(3) Changes in plan assets for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Beginning balance	₩	2,819,782	₩	2,228,377
Interest income		82,151		57,466
Contributions		60,314		210
Transferred from associates		815		(252)
Benefits paid		(87,073)		(88,270)
Remeasurements		(36,758)		(20,840)
Acquisition of business		45,310		-
Others		95		33
Ending balance	₩	2,884,636	₩	2,176,724

(4) The amounts recognized in profit or loss for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022				2021		
		Three months		Nine months		Three months		Nine months
Current service cost	₩	67,809	₩	199,836	₩	63,799	₩	191,960
Net interest income		(3,505)		(12,094)		(528)		(1,576)
	₩	64,304	₩	187,742	₩	63,271	₩	190,384

(5) Contributions to defined contribution plans amounting to ₩4,684 million (2021: ₩2,280 million) was recognized as cost of sales for the nine-month period ended September 30, 2022.

20. Derivative Financial Instruments

(1) Cross currency and interest rate swap

(a) Details of derivative financial instruments applying cash flow hedge accounting as of September 30, 2022 are as follows:

(In thousands of foreign currencies)

Hedged items			Hedging instruments		
Borrowing date	Financial instrument	Hedged risk	Type of contract	Financial institution	Contract period
2019.09.17	Foreign currency denominated bond with fixed rate (Par value: USD 500,000)	Foreign currency risk	Fixed-to-fixed cross currency swap	Kookmin Bank and other	2019.09.17 ~ 2024.09.17
2019.10.02	Foreign currency denominated borrowing for equipment with floating rate (Par value: USD 500,000)	Foreign currency and interest rate risk	Floating-to-fixed cross currency interest rate swap	Korea Development Bank	2019.10.02 ~ 2026.10.02
2020.02.03	Foreign currency denominated borrowing with floating rate (Par value: USD 50,000)	Interest rate risk	Interest rate swap	Woori Bank	2020.02.03 ~ 2023.02.03
2020.03.18	Foreign currency denominated borrowing with floating rate (Par value: USD 50,000)	Interest rate risk	Interest rate swap	Woori Bank	2020.03.18 ~ 2023.02.03

(b) The derivative financial instruments held by the Group are presented in non-current other financial assets and non-current other financial liabilities in the consolidated financial statements of financial position as of September 30, 2022, and the details are as follows:

(In millions of Korean won and thousands of foreign currencies)

Type of contract	Hedged items	Cash flow hedge	Fair value
Fixed-to-fixed cross currency swap	Foreign currency denominated bond with fixed rate (Par value: USD 500,000)	₩ 122,377	₩ 122,377
Floating-to-fixed cross currency interest rate swap	Foreign currency denominated borrowing for equipment with floating rate (Par value: USD 500,000)	159,592	159,592
Interest rate swap	Foreign currency denominated borrowing with floating rate (Par value: USD 50,000)	738	738
Interest rate swap	Foreign currency denominated borrowing with floating rate (Par value: USD 50,000)	992	992
			₩ 283,699

As of September 30, 2022, changes of fair value of the derivative are recognized in other comprehensive income or loss as all of designated hedging instruments are effective for foreign currency risk or foreign currency and interest rate risk.

20. Derivative Financial Instruments, Continued

(2) Option contracts

(a) As of September 30, 2022, the Group has an option contract entered with Cypress, a non-controlling shareholder of its subsidiary, SkyHigh Memory Ltd., and the contract details are as follows:

Target of Evaluation		Description
Put option	Option buyer	Cypress
	Option seller	SK hynix system ic
	Terms and conditions	If an agreement regarding the extension of the contract fails in five years since the inception of the Joint Venture Agreement, Cypress has the right to sell all of Cypress' shares in SkyHigh Memory to SK hynix system ic at a book value per share.
Call option	Option buyer	SK hynix system ic
	Option seller	Cypress
	Terms and conditions	If an agreement regarding the extension of the contract fails in five years since the inception of the Joint Venture Agreement, SK hynix system ic has the right to purchase all of Cypress' shares in SkyHigh Memory at a book value per share from Cypress.

(b) The Group recognizes option valuation gains (loss) during the nine-month period ended September 30, 2022 as financial income (expenses). The fair value of options as of September 30, 2022 is as follows:

(In millions of Korean won)

	September 30, 2022		
	Hedge accounting	Held for trading accounting	Fair value
Call option	₩ -	₩ 34,808	₩ 34,808
Put option	₩ -	₩ (262)	₩ (262)
Derivative Financial Asset			₩ 34,546

21. Capital Stock, Capital Surplus and Other Equity

(1) The Parent Company has 9,000,000,000 authorized shares and the face value per share is ₩5,000 as of September 30, 2022. The number of shares issued, common stock, capital surplus and other equity as of September 30, 2022 and December 31, 2021, are as follows:

(In millions of Korean won and thousands of shares)		September 30, 2022		December 31, 2021
Issued shares[1]		731,530		731,530
Capital stock:				
Common stock	₩	3,657,652	₩	3,657,652
Capital surplus:				
Additional paid-in capital		3,625,797		3,625,797
Others		710,373		708,846
		4,336,170		4,334,643
Other equity:				
Acquisition cost of treasury shares[2]		(2,300,387)		(2,302,119)
Share options[3]		5,356		7,557
Others[3]		(20,140)		-
	₩	(2,315,171)	₩	(2,294,562)
Number of treasury shares		40,351		40,382

[1] As of September 30, 2022, the number of outstanding shares is 728,002 thousand shares, which differs from total issued shares due to share retirement.
[2] The Group disposed 30,367 treasury shares and, accordingly, gained on disposal of treasury shares of ₩1,527 million occurred.
[3] As the Group changed the manner of share-based payment from equity-settlement to cash-settlement, the remeasured value of share based payments was recognized in other equity.

(2) The number of outstanding shares, which deducted treasury shares held by the Parent Company from listed shares, as of September 30, 2022 and December 31, 2021, are as follows:

(In shares)

	September 30, 2022		
	Quoted shares	Treasury shares	Outstanding shares
The number of quoted shares	728,002,365	40,351,325	687,651,040

(In shares)

	December 31, 2021		
	Quoted shares	Treasury shares	Outstanding shares
The number of quoted shares	728,002,365	40,381,692	687,620,673

22. Accumulated Other Comprehensive Income

Details of accumulated other comprehensive income (loss) as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022		December 31, 2021
Equity-accounted investees – share of other comprehensive income	₩	260,783	₩	54,051
Foreign operations – foreign currency translation differences		2,470,266		598,741
Gain on valuation of derivatives		31,708		22,479
	₩	2,762,757	₩	675,271

23. Retained Earnings

Retained earnings as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022		December 31, 2021
Legal reserve[1]	₩	535,877	₩	429,983
Discretionary reserve[2]		235,506		235,506
Unappropriated retained earnings[3]		59,461,525		55,118,579
	₩	60,232,908	₩	55,784,068

[1] The Commercial Act of the Republic of Korea requires the Parent Company to appropriate for each financial period, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its issued capital stock. The reserve is not available for cash dividends payment, but may be transferred to capital stock or used to reduce accumulated deficit.

[2] Discretionary reserve is the reserve for technology development.

[3] Dividends amounting to ₩1,058,936 million for financial year 2021 and ₩412,590 million for quarters of financial year 2022 were paid during the nine-month period ended September 30, 2022.

24. Revenue

(1) Details of the Group's revenue for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)		2022				2021		
		Three months		Nine months		Three months		Nine months
Sale of goods	₩	10,962,408	₩	36,891,298	₩	11,789,903	₩	30,572,194
Providing services		20,475		58,239		15,421		48,989
	₩	10,982,883	₩	36,949,537	₩	11,805,324	₩	30,621,183

(2) Details of the Group's revenue by product and service types for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)		2022				2021		
		Three months		Nine months		Three months		Nine months
DRAM	₩	6,954,326	₩	23,593,637	₩	8,312,960	₩	21,881,212
NAND Flash		3,388,185		11,819,440		3,044,004		7,357,208
Others		640,372		1,536,460		448,360		1,382,763
	₩	10,982,883	₩	36,949,537	₩	11,805,324	₩	30,621,183

(3) The Group's revenue information by region based on the location of selling entities for the three-month and nine-month periods ended September 30, 2022 and 2021 is as follows:

(In millions of Korean won)		2022				2021		
		Three months		Nine months		Three months		Nine months
Korea	₩	397,823	₩	944,350	₩	344,933	₩	1,064,963
China		2,753,335		10,778,218		4,456,709		11,583,118
Asia (other than China)		1,219,391		4,689,194		1,992,788		5,148,484
U.S.A.		6,167,748		19,248,419		4,601,148		11,687,066
Europe		444,586		1,289,356		409,746		1,137,552
	₩	10,982,883	₩	36,949,537	₩	11,805,324	₩	30,621,183

(4) Details of the Group's revenue by the timing of revenue recognition during the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)		2022				2021		
		Three months		Nine months		Three months		Nine months
Performance obligations satisfied at a point in time	₩	10,962,408	₩	36,891,298	₩	11,789,903	₩	30,572,194
Performance obligations satisfied over time		20,475		58,239		15,421		48,989
	₩	10,982,883	₩	36,949,537	₩	11,805,324	₩	30,621,183

25. Selling and Administrative Expenses

Selling and administrative expenses for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)	2022		2021	
	Three months	Nine months	Three months	Nine months
Selling and Administrative Expenses:				
Salaries	₩ 278,882	₩ 849,738	₩ 203,373	₩ 572,856
Defined benefits plan	12,265	35,437	11,767	35,349
Employee benefits	58,789	160,525	39,780	133,729
Commission	266,465	761,350	128,910	353,131
Depreciation	66,386	193,048	54,633	158,862
Amortization	97,929	388,372	148,802	375,175
Freight and custody charges	16,741	43,483	12,447	37,588
Taxes and dues	27,863	77,511	22,287	59,952
Advertising	29,689	75,334	28,110	61,373
Supplies	30,683	85,321	23,563	67,426
Sales promotion expenses	43,677	150,130	36,336	125,729
Quality control cost	76,406	493,944	2,599	4,635
Others	96,273	239,340	40,923	123,546
	1,102,048	3,553,533	753,530	2,109,351
Research and developments:				
Expenditure on research and developments	1,204,215	3,562,639	971,546	2,906,412
Development cost capitalized	(89,161)	(199,184)	(65,843)	(307,533)
	1,115,054	3,363,455	905,703	2,598,879
	₩ 2,217,102	₩ 6,916,988	₩ 1,659,233	₩ 4,708,230

26. Expenses by Nature

Nature of expenses for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)		2022			2021		
		Three Months		Nine months		Three months		Nine months
Changes in finished goods and work-in-process	₩	(2,331,206)	₩	(4,857,872)	₩	198,392	₩	286,360
Raw materials and consumables		2,962,291		8,186,038		1,369,148		5,249,265
Labor costs		1,771,295		5,368,988		1,441,803		3,915,750
Depreciation and amortization		3,562,078		10,449,249		2,708,159		7,855,759
Commission		958,353		2,663,187		615,243		1,800,235
Utilities		573,335		1,563,768		405,232		1,165,591
Repair		401,858		1,151,774		1,014,788		1,663,440
Outsourcing		448,853		1,240,890		255,439		766,111
Others		1,076,190		2,694,601		(306,684)		51,845
Transfer: capitalized development cost and others		(95,724)		(218,877)		(68,017)		(323,989)
Total[1]	₩	9,327,323	₩	28,241,746	₩	7,633,503	₩	22,430,367

[1] Total expenses consist of cost of sales and selling and administrative expenses.

27. Finance Income and Expenses

Finance income and expenses for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)		2022				2021		
		Three months		Nine months		Three months		Nine months
Finance income								
Interest income	₩	27,383	₩	44,424	₩	6,038	₩	16,804
Dividend income		171		1,277		(179)		4,959
Foreign exchange differences[1]		2,044,908		4,079,679		612,170		1,384,771
Gain on disposal of short-term investment assets		19,624		44,529		12,268		25,467
Others		3,543		8,980		19,523		31,757
		2,095,629		4,178,889		649,820		1,463,758
Finance expense								
Interest expenses		148,733		332,288		66,007		196,770
Foreign exchange differences[1]		1,912,242		4,275,307		208,080		881,714
Others		3,190		8,293		21		1,831
		2,064,165		4,615,888		274,108		1,080,315
Net finance income (expense)	₩	31,464	₩	(436,999)	₩	375,712	₩	383,443

[1] The foreign exchange differences gain from long-term investment assets amounting to ₩(-)227,494 million (2021: ₩34,690 million) are included for the nine-month period ended September 30, 2022.

28. Other Income and Expenses

(1) Other income for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

	2022		2021	
	Three months	Nine months	Three months	Nine months
Gain on disposal of property, plant and equipment	₩ 19,927	₩ 126,144	₩ 24,245	₩ 57,064
Gain on disposal of investment property	-	64,418	-	-
Others	10,170	23,687	5,624	21,558
	₩ 30,097	₩ 214,249	₩ 29,869	₩ 78,622

(2) Other expenses for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

	2022		2021	
	Three months	Nine months	Three months	Nine months
Loss on disposal of property, plant and equipment	₩ 471	₩ 3,830	₩ 2,259	₩ 7,219
Loss on disposal of intangible assets	1,395	3,133	948	2,936
Loss on disposal of trade receivables	4,253	8,366	1,410	3,912
Loss on impairments of property, plant and equipment	-	7,691	-	-
Loss on impairments of intangible assets	24,621	50,272	337	385
Donation	16,763	57,293	5,308	47,989
Others	12,898	49,480	9,998	24,537
	₩ 60,401	₩ 180,065	₩ 20,260	₩ 86,978

29. Income Tax Expense

Income tax expense is recognized based on management's best estimate of the average annual effective income tax rate expected for the full financial year multiplied by the pre-tax income of the interim reporting period. Income tax expense includes current tax expense adjustments related to prior periods.

30. Earnings per Share

Basic earnings per share is calculated by dividing the profit attributable to ordinary shareholders of the Parent Company by the weighted average number of outstanding ordinary shares for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(1) Basic earnings per share for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won, except for shares and per share amounts)

	2022		2021	
	Three months	Nine months	Three months	Nine months
Profit attributable to ordinary shareholders of the Parent Company	₩ 1,106,741	₩ 5,957,124	₩ 3,310,823	₩ 6,285,784
Weighted average number of outstanding ordinary shares[1]	687,651,040	687,644,127	687,620,673	686,003,445
Basic earnings per share (in Korean won)	₩ 1,609	₩ 8,663	₩ 4,815	₩ 9,163

[1] Weighted average number of outstanding ordinary shares is calculated as follows:

(In shares)

	2022		2021	
	Three months	Nine months	Three months	Nine months
Outstanding ordinary shares	728,002,365	728,002,365	728,002,365	728,002,365
Treasury shares	(40,351,325)	(40,358,238)	(40,381,692)	(41,998,920)
Weighted average number of outstanding ordinary shares	687,651,040	687,644,127	687,620,673	686,003,445

(2) Diluted earnings per share for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of won, except for shares and per share amounts)

	2022		2021	
	Three months	Nine months	Three months	Nine months
Profit attributable to ordinary shareholders of the Parent Company	₩ 1,106,741	₩ 5,957,124	₩ 3,310,823	₩ 6,285,784
Weighted average number of diluted outstanding ordinary shares[1]	687,770,455	687,805,980	687,842,560	686,260,372
Diluted earnings per share (in Korean won)	₩ 1,609	₩ 8,661	₩ 4,813	₩ 9,159

[1] Weighted average number of diluted outstanding ordinary shares is calculated as follows:

(In share)

	2022		2021	
	Three months	Nine months	Three months	Nine months
Weighted average number of outstanding ordinary shares	687,651,040	687,644,127	687,620,673	686,003,445
Share options	119,415	161,853	221,887	256,927
Weighted average number of diluted outstanding ordinary shares	687,770,455	687,805,980	687,842,560	686,260,372

31. Transactions with Related Parties and Others

(1) Details of related parties as of September 30, 2022 are as follows:

Type	Name of related parties
Associates	Stratio, Inc., SK China Company Limited, Gemini Partners Pte. Ltd., TCL Fund, SK South East Asia Investment Pte. Ltd., Hushan Xinju (Chengdu) Venture Investment Center (Smartsource), Prume Social Farm, Co., Ltd., Wuxi xinfa IC industry park., Ltd. Mirae Asset Committee Semiconductor No. 1 Startup Venture Private Equity Investment Co., Ltd. Magnus Private Investment Co., Ltd., L&S (No.10) Early Stage Ⅲ Investment Association, SiFive Inc., YD-SK-KDB Scocial Value Ningbo Zhongxin Venture Capital Partnership (Limited Partnership), Jiangsu KVTS Semiconductor science and Technology Co., Ltd. Sapeon Inc
Joint ventures	HITECH Semiconductor (Wuxi) Co., Ltd., Hystars Semiconductor (Wuxi) Co., Ltd. Specialized Investment-type Private Equity Investment Trust For Growth Of Semiconductor Specialized Investment-type Private Equity Investment Trust For Win-win System Semiconductor
Other related parties	SK Square Co., Ltd., which has significant influence over the Group, and its subsidiaries, SK Holdings Co., Ltd., which has control over SK Square Co., Ltd., and its subsidiaries

31. Transactions with Related Parties and Others, Continued

(2) Significant transactions with related parties for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		For the three-month period ended September 30, 2022		
	Company	Sales and others	Purchase and others	Asset acquisition
Associate	SK China Company Limited	₩ 10	₩ 4,285	₩ -
	Prume Social Farm, Co., Ltd.	-	9	-
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.	622	173,617	7,824
	Hystars Semiconductor (Wuxi) Co., Ltd.	55	10,023	-
Other related parties	SK Telecom Co., Ltd.	17,178	11,328	5,324
	SK Holdings Co., Ltd.[1]	5,980	93,041	24,815
	ESSENCORE Limited	185,127	-	-
	SK Ecoplant Co., Ltd.	9,068	8	428,621
	SK Ecoengineering Co., Ltd.	-	-	22,977
	SK Energy Co., Ltd.	15,162	24,085	-
	SK Networks Co., Ltd.	1,531	2,893	79
	SKC Solmics Co., Ltd.	318	39,244	85
	Chungcheong energy service Co., Ltd.	-	6,757	9
	SK Materials Co., Ltd.	42	53,317	-
	SK Siltron Co., Ltd.	11,112	136,529	-
	SK Materials Airplus Inc.	147	34,682	-
	Techdream Co., Ltd.	-	62,330	-
	SK Tri Chem Co., Ltd.	425	62,434	-
	SK Shieldus Co., Ltd.	1,546	23,002	4,352
	SK Innovation Co., Ltd.	5,197	15,307	-
	SK Square Co., Ltd.	-	-	-
	SK REIT Co., Ltd.	-	1,763	-
	FSK L&S Co., Ltd.	22	28,904	10,730
	Others	41,316	63,876	7,321
		₩ 294,858	₩ 847,434	₩ 512,137

31. Transactions with Related Parties and Others, Continued

(2) Significant transactions with related parties for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows, Continued:

(In millions of Korean won)

		For the nine-month period ended September 30, 2022		
	Company	Sales and others	Purchase and others	Asset acquisition
Associate	SK China Company Limited	₩ 25	₩ 9,194	₩ -
	Prume Social Farm, Co., Ltd.	-	31	-
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.	1,769	495,359	15,643
	Hystars Semiconductor (Wuxi) Co., Ltd.	175	26,568	-
Other related parties	SK Telecom Co., Ltd.	60,840	26,654	8,951
	SK Holdings Co., Ltd.[1]	16,146	263,590	114,900
	ESSENCORE Limited	503,927	-	-
	SK Ecoplant Co., Ltd.	30,185	8	1,332,590
	SK Ecoengineering Co., Ltd.	-	0	111,215
	SK Energy Co., Ltd.	37,737	97,059	-
	SK Networks Co., Ltd.	4,752	6,964	260
	SKC Solmics Co., Ltd.	1,007	113,975	537
	Chungcheong energy service Co., Ltd.	13	36,527	9
	SK Materials Co., Ltd.	2,261	143,504	-
	SK Siltron Co., Ltd.	30,981	332,674	-
	SK Materials Airplus Inc.	654	98,948	5,751
	Techdream Co., Ltd.	-	151,544	-
	SK Tri Chem Co., Ltd.	978	157,953	-
	SK Shieldus Co., Ltd.	3,797	74,238	7,587
	SK Innovation Co., Ltd.	12,621	58,760	36
	SK Square Co., Ltd.	461	-	-
	SK REIT Co., Ltd.	507,200	1,763	113,377
	FSK L&S Co., Ltd.	42	97,426	51,213
	Others	126,228	174,405	48,479
		₩ 1,341,799	₩ 2,367,144	₩ 1,810,548

[1] Royalty expense for the use of the SK brand for the nine-month period ended September 30, 2022 is included.

31. Transactions with Related Parties and Others, Continued

(2) Significant transactions with related parties for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows, Continued:

(In millions of Korean won)

	Company	For the three-month period ended September 30, 2021 Sales and others	Purchase and others	Asset acquisition
Associate	SK China Company Limited	₩ 7	₩ 3,302	₩ -
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.	284	139,063	2,142
	Hystars Semiconductor (Wuxi) Co., Ltd.	56	3,784	207
Other related parties	SK Telecom Co., Ltd.	15,740	6,461	2,075
	SK Holdings Co., Ltd.[1]	5,869	68,949	22,209
	ESSENCORE Limited	235,291	-	-
	SK Ecoplant Co., Ltd.	7,027	-	334,077
	SK Energy Co., Ltd.	9,022	12,778	-
	SK Networks Co., Ltd.	1,803	2,084	-
	SKC Solmics Co., Ltd.	318	37,836	70
	Chungcheong energy service Co., Ltd.	1	3,432	-
	SK Materials Co., Ltd.	1,052	28,009	-
	SK Siltron Co., Ltd.	8,867	80,832	-
	SK Materials Airplus Inc.	267	31,846	-
	Techdream Co., Ltd.	-	31,146	-
	SK Tri Chem Co., Ltd.	165	42,451	-
	SK Shieldus Co., Ltd.	660	18,431	5,863
	SK Innovation Co., Ltd.	9,905	14,403	-
	Others	31,279	66,793	12,710
		₩ 327,613	₩ 591,600	₩ 379,353

31. Transactions with Related Parties and Others, Continued

(2) Significant transactions with related parties for the three-month and nine-month periods ended September 30, 2022 and 2021 are as follows, Continued:

(In millions of Korean won)

		For the nine-month period ended September 30, 2021		
	Company	Sales and others	Purchase and others	Asset acquisition
Associate	SK China Company Limited	₩ 21	₩ 7,802	₩ -
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.	2,397	405,308	36,138
	Hystars Semiconductor (Wuxi) Co., Ltd.	178	17,552	9,073
Other related parties	SK Telecom Co., Ltd.	64,025	189,495	6,875
	SK Holdings Co., Ltd.[1]	19,860	216,329	147,347
	ESSENCORE Limited	688,816	-	-
	SK Ecoplant Co., Ltd.	22,200	260	906,992
	SK Energy Co., Ltd.	32,235	62,211	2,558
	SK Networks Co., Ltd.	5,341	6,470	108
	SKC Solmics Co., Ltd.	763	99,525	289
	Chungcheong energy service Co., Ltd.	25	18,277	-
	SK Materials Co., Ltd.	3,030	85,385	-
	SK Siltron Co., Ltd.	23,943	259,862	-
	SK Materials Airplus Inc.	476	96,421	-
	Techdream Co., Ltd.	-	85,278	-
	SK Tri Chem Co., Ltd.	475	103,107	-
	SK Shieldus Co., Ltd.	1,582	55,933	14,274
	SK Innovation Co., Ltd.	26,834	52,372	44
	Others	94,374	204,459	35,054
		₩ 986,575	₩ 1,966,046	₩ 1,158,752

[1] Royalty expense for the use of the SK brand for the nine-month period ended September 30, 2021 is included.

31. Transactions with Related Parties and Others, Continued

(3) The balances from significant transactions as of September 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)

		September 30, 2022	
	Company	Trade receivables and others	Other payables and others
Associate	SK China Company Limited	₩ 2	₩ 10,312
	Prume Social Farm, Co., Ltd.	-	4
Joint ventures	HITECH Semiconductor (Wuxi) Co., Ltd.	606	461,821
	Hystars Semiconductor (Wuxi) Co., Ltd.[1]	40	100,062
Other related parties	SK Telecom Co., Ltd.	1,591	13,600
	SK Holdings Co., Ltd.	1,971	155,494
	ESSENCORE Limited	113,281	-
	SK Ecoplant Co., Ltd.	5,870	736,538
	SK Ecoengineering Co., Ltd.	-	75,824
	SK Energy Co., Ltd.	2,096	20,047
	SK Networks Co., Ltd.	125	9,598
	SKC Solmics Co., Ltd.	134	42,751
	Chungcheong energy service Co., Ltd.	-	2,518
	SK Materials Co., Ltd.	434	22,291
	SK Siltron Co., Ltd.	4,610	53,270
	SK Materials Airplus Inc.	37	372,963
	Techdream Co., Ltd.	-	14,508
	SK Tri Chem Co., Ltd.	463	25,737
	SK Shieldus Co., Ltd.	597	28,108
	SK Innovation Co., Ltd.	497	4,268
	SK Square Co., Ltd.	2	-
	SK REIT Co., Ltd.	-	180,864
	FSK L&S Co., Ltd.	2	11,924
	Others	25,798	55,234
		₩ 158,156	₩ 2,397,736

[1] Other payables and others include ₩45,556 million of borrowings.

31. Transactions with Related Parties and Others, Continued

(3) The balances from significant transactions as of September 30, 2022 and December 31, 2021 are as follows, Continued:

(In millions of Korean won)

			December 31, 2021		
	Company		Trade receivables and others		Other payables and others
Associate	SK China Company Limited	₩	2	₩	11,360
	Magnus Private Investment Co., Ltd.		806		5
	Prume Social Farm, Co., Ltd.		-		4
Joint ventures	HITECH Semiconductor (Wuxi) Co., Ltd.		23		427,476
	Hystars Semiconductor (Wuxi) Co., Ltd.[1]		33		185,585
Other related parties	SK Telecom Co., Ltd.		48,575		11,789
	SK Holdings Co., Ltd.		1,938		200,176
	ESSENCORE Limited		60,527		-
	SK Ecoplant Co., Ltd.		3,216		1,185,318
	SK Energy Co., Ltd.		3,204		27,773
	SK Networks Co., Ltd.		256		10,493
	SKC Solmics Co., Ltd.		137		39,974
	Chungcheong energy service Co., Ltd.		10		5,742
	SK Materials Co., Ltd.		3		16,533
	SK Siltron Co., Ltd.		3,904		32,434
	SK Materials Airplus Inc.		13		376,050
	Techdream Co., Ltd.		-		5,835
	SK Tri Chem Co., Ltd.		156		13,251
	SK Shieldus Co., Ltd.		3,236		35,285
	SK Innovation Co., Ltd.		1,074		7,794
	SK Square Co., Ltd.		-		167
	Others		26,765		59,789
		₩	153,878	₩	2,652,833

[1] Other payables and others include ₩78,819 million of borrowings

31. Transactions with Related Parties and Others, Continued

(4) Key management compensation

The Group considers registered directors who have authority and responsibility for planning, directing and controlling the activities of the Group as key management. The compensation paid to key management for employee services for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

	Period ended September 30			
	2022		2021	
	Three months	Nine months	Three months	Nine months
Salaries	₩ 1,283	₩ 4,610	₩ 1,377	₩ 4,076
Defined benefit plan	75	336	160	480
Share-based payment	2,767	5,646	190	661
	₩ 4,125	₩ 10,592	₩ 1,727	₩ 5,217

(5) The significant transactions between the Group and the companies that are in the same conglomerate group according to '*Fair Trade Law*' for the nine-month periods ended September 30, 2022 and 2021 are as follows. These entities are not related parties according to Korean IFRS 1024 *Related Party Disclosures.*

(In millions of Korean won)

	Period ended September 30, 2022					
	Sales and others		Purchase and others		Asset acquisition	
Company	Three months	Nine months	Three months	Nine months	Three months	Nine months
SK Chemicals Co., Ltd.	₩ 2,081	₩ 6,615	₩ 354	₩ 1,045	₩ -	₩ -
SK Bioscience Co., Ltd.	783	2,174	3	9	-	-
ANTS Co., Ltd.	2	6	7,924	7,924	-	-
SMCore. Inc	2	14	4,064	4,575	4,791	38,746
Korea Nexlene Company	1,307	3,413	-	-	-	-
Others	493	1,265	463	1,274	-	-
	₩ 4,668	₩ 13,487	₩ 12,808	₩ 14,827	₩ 4,791	₩ 38,746

(In millions of Korean won)

	Period ended September 30, 2021					
	Sales and others		Purchase and others		Asset acquisition	
Company	Three months	Nine months	Three months	Nine months	Three months	Nine months
SK Chemicals Co., Ltd.	₩ 2,931	₩ 8,534	₩ 319	₩ 915	₩ -	₩ -
SK Bioscience Co., Ltd.	675	1,919	-	-	-	-
ANTS Co., Ltd.	1	2	1,798	6,811	11	11
SMCore. Inc	1	1	244	565	-	529
Korea Nexlene Company	1,125	3,080	-	-	-	-
Others	681	1,622	341	901	-	-
	₩ 5,414	₩ 15,158	₩ 2,702	₩ 9,192	₩ 11	₩ 540

31. Transactions with Related Parties and Others, Continued

(6) The balances of significant transactions between the Group and the companies that are in the same conglomerate group designated by *'Fair Trade Law'* as of September 30, 2022 and December 31, 2021 are as follows. These entities are not related parties according to Korean IFRS 1024 *Related Party Disclosures*.

(In millions of Korean won)

	September 30, 2022			
Company		**Trade receivables and others**		**Other payables and others**
SK Chemicals Co., Ltd.	₩	781	₩	143
SK Bioscience Co., Ltd.		312		-
AnTS Co., Ltd.		-		27
SMCore Inc.		-		10,037
Others		111		-
	₩	1,204	₩	10,207

(In millions of Korean won)

	December 31, 2021			
Company		**Trade receivables and others**		**Other payables and others**
SK Chemicals Co., Ltd.	₩	1,135	₩	95
SK Bioscience Co., Ltd.		414		195
AnTS Co., Ltd.		1		12
SMCore Inc.		7		3,212
Korea Nexlene Company		182		-
Others		249		-
	₩	1,988	₩	3,514

(7) The right-of-use assets and lease liabilities recognized regarding the lease agreements with HITECH Semiconductor (Wuxi) Co., Ltd., a joint venture for the nine-month period ended September 30, 2022 amount to ₩14,040 million and ₩14,040 million, respectively, and lease payments to the related parties amount to ₩65,541 million. The right-of-use assets and lease liabilities recognized regarding the lease agreements with other related parties including SK REIT Co., Ltd. and SK Materials Airplus Inc. for the period ended September 30, 2022 amount to ₩149,039 million and ₩220,046 million, respectively, and lease payments to the related parties amount to ₩39,624 million.

(8) The Group provides a payment guarantee amounting to RMB 693 million to Hystars Semiconductor (Wuxi) Co., Ltd., a joint venture.

(9) The establishment of the subsidiary is explained in Note 1, and the acquisitions and additional investments of associates are explained in Note 10.

31. Transactions with Related Parties and Others, Continued

(10) Financial transactions with related parties for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		For the nine-month period ended September 30, 2022		
	Company	**Repayment**	**Dividend received**	**Dividend Paid**
Joint venture	Hystars Semiconductor (Wuxi) Co., Ltd.	₩ 37,409	₩ -	₩ -
	HITECH Semiconductor (Wuxi) Co., Ltd.	-	17,383	-
Other related parties	SK Square Co., Ltd.	-	-	312,654
		₩ 37,409	₩ 17,383	₩ 312,654

(In millions of Korean won)

		For the nine-month period ended September 30, 2021		
	Company	**Repayment**	**Dividend received**	**Dividend paid**
Joint venture	Hystars Semiconductor (Wuxi) Co., Ltd.	₩ 74,861	₩ -	₩ -
	HITECH Semiconductor (Wuxi) Co., Ltd.	-	17,115	-
Other related parties	SK Telecom Co., Ltd.	-	-	170,937
		₩ 74,861	₩ 17,115	₩ 170,937

32. Commitments and Contingencies

(1) Significant pending litigations and claims of the Group as of September 30, 2022 are as follows:

(a) Price-fixing class-action lawsuits in North America
On April 27, 2018, a class action lawsuit against the Parent Company and SK hynix America Inc., its subsidiary, for price fixing by major DRAM companies (period from June 1, 2016 to February 1, 2018) was filed with the U.S. District Court for the Northern District of California. Similar class action lawsuits have been filed with the U.S. District Court for the Northern District of California, the Supreme Court of British Columbia, the Quebec District Court, the Ontario Federal and District Court.
In December 2020 and September 2021, the U.S. District Court for the Northern District of California ruled the dismissal of all lawsuits filed by direct purchasers and indirect purchasers in the United States, and the plaintiffs in the United States later filed for an appeal, but all lawsuits in the United States have been finalized by maintaining the decision from the first trial as of September 30, 2022. Meanwhile, in June 2021 and November 2021, the Quebec District Court and the Ontario Federal Court in Canada made decisions to dismiss the lawsuits filed by the group of buyers in Canada, but the plaintffs later filed for an appeal. Ontario Federal Court of Appeals are still in the progress as of September 30, 2022.

(b) The antitrust investigation in China
The State Administration for Market Regulation of China initiated to investigate the violation of the antitrust law regarding on primary DRAM businesses' sales in China in May 2018, and the investigation has been started. The pending case currently is under investigation. As of September 30, 2022, the Group cannot predict the outcome of these investigation.

(c) Other patent infringement claims and litigation
In addition to the above litigations, the Group has responded to various disputes related to intellectual property rights and recognizes liabilities when it represents a present obligation as a result of past event and it is probable that an outflow of resources will arise and a loss can be reliably estimated.

(2) Back-end process service contract with HITECH Semiconductor (Wuxi) Co., Ltd. (HITECH)
The Group has entered into an agreement with HITECH to be provided with back-end process service by HITECH. The conditions of the service provided includes package, package test, modules and others. According to the agreement, the Group has paid a certain level of margin guaranteed to HITECH as the Group has priority to use HITECH's equipment.

32. Commitments and Contingencies, Continued

(3) Assets provided as collateral

Details of assets provided as collateral as of September 30, 2022 are as follows:
(In millions of Korean won and millions of foreign currencies)

		Book value	Pledged amount			
Category		**Amount**	**Currency**	**Amount in USD**	**Amount in KRW**	**Remark**
Land and buildings	₩	164,188	USD	120	172,376	Borrowings for equipment and others
			KRW	-	14,854	
Machinery		3,462,967	USD	5,193	7,450,678	
			KRW	-	450,000	
	₩	3,627,155	USD	5,313	7,623,054	
			KRW	-	464,854	

(In millions of Korean won and millions of foreign currencies)

		Book value	Collateralized liabilities amount			
Category		**Amount**	**Currency**	**Amount in USD**	**Amount in KRW**	**Remark**
Land and buildings	₩	164,188	USD	5	7,864	Borrowings for equipment and others
			KRW	-	4,543	
Machinery		3,462,967	USD	2,316	3,322,286	
			KRW	-	366,667	
	₩	3,627,155	USD	2,321	3,330,150	
			KRW	-	371,210	

32. Commitments and Contingencies, Continued

(4) Financing agreements

Details of credit lines with financial institutions as of September 30, 2022 are as follows:

(In millions of Korean won and millions of foreign currencies)

	Financial Institution	Commitment	Currency	Amount
The Parent Company	Hana Bank and others	Import finance including usance	USD	90
		Comprehensive limit contract for import and export including usance	USD	1,870
		Overdrafts with banks	KRW	20,000
		Accounts receivable factoring contracts which have no right to recourse	KRW	70,000
SK hynix Semiconductor (China) Ltd.	Agricultural Bank of China and others	Import finance including usance	RMB	950
			USD	390
SK hynix America Inc. and other sales entities	Citibank and others	Accounts receivable factoring contracts which have no right to recourse	USD	892
Domestic subsidiaries	Hana Bank and others	Import finance	KRW	10,500
	Hana Bank and others	Import finance including usance	USD	15

(5) Capital commitments

The Group's unrecorded commitments in relation to the capital expenditures on property, plant and equipment as of September 30, 2022 are ₩11,855,282 million (as of December 31, 2021: ₩ 13,846,585 million).

(6) Investment in KIOXIA Holdings Corporation ("KIOXIA")

In regards to the Group's interests in KIOXIA through its investments in BCPE Pangea Intermediate holdings Cayman, L.P. and BCPE Pangea Cayman2 Limited, equity shares in KIOXIA owned, directly or indirectly, by the Group are limited to a certain percentage during certain periods after the date of acquisition. In addition, during the same periods, the Group does not have the right in appointing KIOXIA's directors and is unable to exercise significant influence over decision-making for KIOXIA's operations and management.

32. Commitments and Contingencies, Continued

(7) Acquisition of the Intel NAND business
The Group has entered into a master purchase agreement with Intel Corporation ("Intel") to acquire the entire NAND business of Intel excluding the Optane division of Non-Volatile Memory Solutions Group during the year ended December 31, 2020. Pursuant to the master purchase agreement, the entire business with assets and liabilities attributable to the business shall be transferred in two separate processes through subsidiaries that newly established overseas, and payment shall be made in two installments. Total purchase consideration of US$ 8,880 million shall be paid with the first installment of US$ 6,109 million which was paid in the prior year ended December 31, 2021 as part of first deal closing and US$ 500 million was paid during the nine-month period ended September 30, 2022. The second installment of US$ 2,271 million shall be paid by March 2025. The second deal closing of the business transfer depends on the satisfaction of an agreed upon set of conditions that include regulatory approvals of governmental authorities and the agreed termination fee shall be paid when the contract is terminated under certain circumstances. However, the Group believes that the possibility that the second deal closing will not occur is low.

In the process of obtaining a conditional business combination approval for the Intel NAND business acquisition from the Chinese competition authority (Chinese State Administration for Market Regulation) in connection with the first closing of the Intel NAND business completed at the end of the current year, the Group was imposed with certain conditions, mainly including the obligation to maintain a reasonable pricing policy and increase production and to support the entry of third-party competitors into the Chinese eSSD market over the next five years. Therefore, the Group must comply with these obligations for the next five years and may apply to waive them after five years. If the Group makes such an application, the Chinese competition authorities will decide whether to accept the application in consideration of the competition in the Chinese eSSD market.

(8) Contracts for corporate purchasing card
The Group signed contracts for corporate purchasing card with financial institutions for paying national taxes and electricity bills. The Group pays the payment to the credit card companies at the end of the credit period stipulated in the contracts and the balance of the payables to the credit card companies as of September 30, 2022 is ₩2,092,711 million.

(9) On October 7, 2022, the U.S. Department of Commerce Bureau of Industry and Security (BIS) announced new export regulations that strengthen restrictions on exports of high-performance semiconductors to China and semiconductor production equipment exports and semiconductor production activitiesin China. The Group has actively discussed with the US government for the smooth operation of its semiconductor plants in China, and as a result, on October 11, 2022, the Group has been granted a one-year grace period on this restriction so that it can supply equipment necessary for semiconductor production and development in China.

33. Cash Flows

(1) Reconciliations between profit and net cash inflow from operating activities for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

		2022		2021
Profit for the period	₩	5,962,401	₩	6,296,315
Adjustment				
Income tax expense		2,461,820		2,454,019
Interest expense		332,288		196,770
Depreciation		9,540,805		7,029,772
Amortization of intangible assets		675,990		576,471
Depreciation of right-of-use assets		243,009		255,375
Gain on disposal of property, plant and equipment		(126,144)		(57,064)
Gain on disposal of investment property		(64,418)		-
Loss on impairment of intangible assets		50,272		385
Defined benefit plan		187,742		190,384
Gain on foreign currency translation		(2,148,669)		(490,201)
Loss on foreign currency translation		3,250,032		408,042
Gain on equity method investments, net		(119,245)		(184,431)
Gain on disposal of short-term investment assets		(44,529)		(25,467)
Others, net		(3,952)		130,809
Changes in operating assets and liabilities				
Decrease (increase) in trade receivables		203,143		(1,774,620)
Decrease in loans and other receivables		10,162		7,790
Increase in inventories		(4,970,105)		(355,758)
Increase in other assets		(305,644)		(206,904)
Increase (decrease) in trade payables		1,143,206		(297,928)
Increase in other payables		1,393		299,493
Increase in other non-trade payables		155,131		578,562
Increase in provisions		441,159		3,678
Increase (decrease) in other liabilities		(51,493)		33,301
Payment of defined benefit liabilities		(710)		(629)
Contributions to plan assets		(60,314)		(210)
Cash generated from operating activities	₩	16,763,330	₩	15,067,954

(2) Details of significant transactions without inflows and outflows of cash for the nine-month periods ended September 30, 2022 and 2021 are as follows:

(In millions of Korean won)

	2022	2021
Increase in other payables related to property, plant and equipment	2,472,056	1,360,068

(3) The Group presented the inflow and outflow of cash from short-term investment assets, etc which are frequently traded and have a large total amount and mature in a short period of time, as net increases and decreases.

34. Share-based Payment

(1) The Parent Company accounts for share-based payment, with options granted to employees to choose either cash-settled or equity-settled share-based payment, in accordance with the substance of transactions and the details of the share options as of September 30, 2022 are as follows:

(In shares)

	Total numbers of share option granted	Forfeited or Cancelled	Exercised	Outstanding at September 30, 2022
1st [1]	99,600	-	99,600	-
2nd	99,600	-	-	99,600
3rd	99,600	-	-	99,600
4th	7,747	-	7,747	-
5th	7,223	-	-	7,223
6th	8,171	8,171	-	-
7th	61,487	-	-	61,487
8th	61,487	-	-	61,487
9th	61,487	-	-	61,487
10th [2]	54,020	8,994	-	47,623
11th	6,397	-	-	6,397
12th	6,469	-	-	6,469
13th [2]	75,163	24,468	-	59,526
14th [2]	195,460	11,773	-	183,687
	843,911	53,406	107,347	694,586

	Grant date	Service Period for Vesting	Exercisable Period	Exercise price (in Korean won)
1st[1]	March 24, 2017	March 24, 2017 - March 24, 2019	March 25, 2019 - March 24, 2022	48,400
2nd	March 24, 2017	March 24, 2017 - March 24, 2020	March 25, 2020 - March 24, 2023	52,280
3rd	March 24, 2017	March 24, 2017 - March 24, 2021	March 25, 2021 - March 24, 2024	56,460
4th	January 1, 2018	January 1, 2018 - December 31, 2019	January 1, 2020 - December 31, 2022	77,440
5th	March 28, 2018	March 28, 2018 - March 28, 2020	March 29, 2020 - March 28, 2023	83,060
6th	February 28, 2019	February 28, 2019 - February 28, 2021	March 1, 2021 - February 29, 2024	73,430
7th	March 22, 2019	March 22, 2019 - March 22, 2021	March 23, 2021 - March 22, 2024	71,560
8th	March 22, 2019	March 22, 2019 - March 22, 2021	March 23, 2022 - March 22, 2025	77,290
9th	March 22, 2019	March 22, 2019 - March 22, 2022	March 23, 2023 - March 22, 2026	83,470
10th[2]	March 20, 2020	March 20, 2020 - March 20, 2023	March 21, 2023 - March 20, 2027	84,730
11th	March 20, 2020	March 20, 2020 - March 20, 2023	March 21, 2023 - March 20, 2027	84,730
12th	March 30, 2021	March 30, 2021 - March 30, 2023	March 31, 2023 - March 30, 2026	136,060
13th[2]	March 30, 2021	March 30, 2021 - March 30, 2023	March 31, 2023 - March 30, 2026	136,060
14th[2]	March 30, 2022	March 30, 2022 - March 30, 2024	March 31, 2024 - March 30, 2027	121,610

[1] During the nine-month period ended September 30, 2022, the share options were exercised as cash-settled share-based payment.
[2] During the nine-month period ended September 30, 2022, 45,235 shares of options have forfeited.
[3] In addition to the above share options, the Group grants a restricted stock unit (RSU) to the shares of its subsidiary, SK hynix NAND Product Solutions Corp.

34. Share-based Payment, Continued

(2) Details of liabilities recognized for stock appreciation rights as of September 30, 2022 are as follows:
(In millions of Korean won)

		September 30, 2022
Stock appreciation rights liabilities	₩	66,478

As of September 30, 2022, the intrinsic value of vested stock appreciation rights is amounting to ₩21,607 million, and stock appreciation rights liabilities include RSU for the subsidiaries' shares amount to ₩22,169 million.

(3) Measurement of fair value
The compensation cost is calculated by applying a binomial option-pricing model in estimating the fair value of the option as of September 30, 2022. The inputs used are as follows:

	2nd	3rd	5th	7th	8th	9th
Share price on the remeasurement date	118,000	118,000	118,000	118,000	118,000	118,000
Expected volatility	33.63%	33.63%	33.63%	33.63%	33.63%	33.63%
Estimated fair value of share option (in Korean won)	66,630	64,753	38,559	52,108	51,961	52,177
Dividend yield ratio	0.99%	0.99%	0.99%	0.99%	0.99%	0.99%
Risk free ratio	1.67%	2.21%	1.67%	2.20%	2.51%	2.69%

	10th	11th	12th	13th	14th
Share price on the remeasurement date	118,000	118,000	118,000	118,000	120,000
Expected volatility	33.63%	33.63%	33.63%	33.63%	33.00%
Estimated fair value of share option (in Korean won)	55,068	55,068	29,628	29,628	36,637
Dividend yield ratio	0.99%	0.99%	0.99%	0.99%	0.90%
Risk free ratio	2.73%	2.73%	2.70%	2.70%	2.88%

(4) The compensation expense for the nine-month period ended September 30, 2022 is ₩52,874 million (2021: ₩1,741 million) and includes ₩37,073 million in stock compensation granted by the subsidiary.

35. Business combination

(1) Details of business combinations during the nine-month period ended September 30, 2022 are as follows:

(a) The Group entered into a share purchase agreement with Magnus Semiconductor, LLC to acquire 100% shares of Key Foundry Co., Ltd. on October 29, 2021. During the nine-month period ended September 30, 2022, all the prerequisites set in the contract were satisfied including relevant governments approval that must be obtained in accordance with relevant laws for approval of domestic and foreign business combinations. Accordingly, on August 2, 2022, the deal was closed, and the Group has completed the acquisition of Key Foundry Co., Ltd.'s entire outstanding stocks.

(b) Details of consideration transferred and identifiable assets acquired and liabilities assumed as of acquisition date are as follows:

(In millions of Korean won)

		September 30, 2022
Consideration transferred	₩	
Cash and cash equivalents		569,800
		569,800
Identifiable assets acquired and liabilities assumed		
Cash and cash equivalents		144,612
Trade receivables, net		122,349
Inventories		78,418
Property, plant and equipment		343,923
Intangible assets		145,910
Other assets		23,668
Other liabilities		(340,356)
Identifiable net assets		518,524
Goodwill	₩	51,276

[1] As of September 30, 2022, the initial accounting for the business combination has not been completed, and the fair value of the assets acquired and the liabilities assumed on the date of acquisition due to the business combination has been determined by the provisional amount.

(2) Profit or loss before the acquisition

After the acquisition date of Key Foundry Co., Ltd., Key Foundry Co., Ltd.'s revenue and net income for the nine-month period ended September 30, 2022 were ₩161,805 million and ₩53,030 million, respectively.

Had the acquisition of Key Foundry Co., Ltd. completed on January 1, 2022, the Group's revenue and net income for the nine-month period ended September 30, 2022 would have been ₩37,421,533 million and ₩6,066,682 million, respectively.

Independent Auditor's Report

(English Translation of a Report Originally Issued in Korean)

To the Shareholders and Board of Directors of
SK hynix Inc.

Opinion

We have audited the accompanying consolidated financial statements of SK hynix Inc. and its subsidiaries (collectively referred to as the "Group"), which comprise the consolidated statements of financial position as at December 31, 2021 and 2020, and the consolidated statements of comprehensive income, consolidated statements of changes in equity and consolidated statements of 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 financial position of the Group as at December 31, 2021 and 2020, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards as adopted by the Republic of Korea (Korean IFRS).

Basis for Opinion

We conducted our audits in accordance with Korean Standards on Auditing. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the* consolidated *Financial Statements* section of our report. We are independent of the Group in accordance with the ethical requirements of the Republic of Korea that are relevant to our audit of the financial statements and we have fulfilled our other ethical responsibilities in accordance with the ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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 of the current period. 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.

(1) Fair value measurement of financial assets related to the Group's investments to KIOXIA Holdings Corporation presented as long-term investment assets

Reasons why the matter was determined to be a key audit matter

The Group has equity investment in a special purpose entity ("SPC1") and convertible bonds ("SPC2") in relation to investments in KIOXIA Holding Corporation ("KIOXIA") with total amount of ₩ 6,347,537 million, which represents 6.58% of consolidated total assets as at December 31, 2021, and the Group recognized ₩371,972 million as gain on valuation of the financial assets for the year ended December 31, 2021 with respect to the investments. The financial assets are non-listed and measured at the fair value using significant unobservable inputs; therefore, the financial assets are classified to Level 3 of the fair value.

The fair value of SPC1 and SPC2 was measured in consideration of the profit-sharing agreement between investors based on the estimated equity value of KIOXIA, a non-public company, and the Group used an independent external expert for the fair value measurement.

The carrying amount of the financial assets is material in the consolidated financial statements and the selection of the valuation techniques that will be applied in the fair value measurement, assumptions and estimates of inputs that have significant impacts on the fair value measurement involve the Group management's judgement. Accordingly, we determined the fair value measurement of the financial assets as a key audit matter.

How our audit addressed the Key Audit Matter

We performed the following audit procedures, including the use of auditor's experts.

· Obtained an understanding and evaluated the Group's accounting policy, process and internal controls including management's review and approval in relation to the fair value measurements of the financial assets.

· Evaluated the competence and independence of external specialist used by management.

· Reviewed the relevant contracts to understand the investment conditions related to the financial asset investment and reviewed whether it is appropriately reflected in management's valuation details.

· Assessed the appropriateness of the valuation technique used in the fair value estimates by management.

· Assessed the reasonableness of key assumptions applied in fair value estimates of SPC1, SPC2 and equity value of KIOXIA.

· Performed a lookback analysis by comparing the estimation of prior year to actual results to review whether estimates include optimistic assumptions.

· Reviewed the consistency of the sales growth rate, operating profit margin rate and capital expenditure forecasts applied in the equity value measurement of KIOXIA with the past growth and market conditions.

· Evaluated the results of a sensitivity analysis on the discount rates and permanent growth rate performed by management to assess the impact of changes in key assumptions on the fair value measurement.

(2) Appropriateness of machinery's depreciation starting point

Reasons why the matter was determined to be a key audit matter

The Group's property, plant and equipment amount to ₩ 53,034,270 million, of which the machinery accounts for ₩ 33,941,706 million. Regarding the recognition of depreciation expenses for machinery, the Group starts depreciating machinery when the acquisition and installation of the machinery is complete, and it is ready for its intended use. During the current year ended December 31, 2021, the Group has started to depreciate the machinery amounting to ₩ 10,373,227 million after determining that the machinery is ready for its intended use.

The size of the investment in machinery that the Group makes annually for the maintenance and expansion of production plants is significant and the effect of depreciation amount on the consolidated financial statements is significant depending on the determination when it is ready for its intended use. Accordingly, we determined the appropriateness of depreciation starting point as a key audit matter.

How our audit addressed the Key Audit Matter

We performed the following audit procedures.

· Obtained an understanding on the Group's policy, process and internal controls in relation to the determination on when to start depreciation of the machinery

· Evaluated the Group's internal controls in relation to the determination on when the machinery is ready for its intended use and when its depreciation begins including the machinery transferred from construction-in-progress

· Assessed internal controls for identifying and reviewing the reasons for assets remaining as assets under constructions for long time

· Inspected evidence documents used by the Group in determining the depreciation starting point of the machinery

· Observed and made inquiries on operations status of key production facilities invested during the current year

· Made inquiries on when certain construction-in-progress is expected to be ready for its intended use and start depreciation and reviewed the relevant evidence documents

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 Korean IFRS, 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 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.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Korean Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Korean Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the

entity's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

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 of the current period and are therefore the key audit matters. We describe these matters in our auditor's 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 partner on the audit resulting in this independent auditor's report is Si-Chang, Choi, Certified Public Accountant.

/s/ Samil PricewaterhouseCoopers

Seoul, Korea

March 11, 2022

This report is effective as of March 11, 2022, the audit report date. Certain subsequent events or circumstances, which may occur between the audit report date and the time of reading this report, could have a material impact on the accompanying consolidated financial statements and notes thereto. Accordingly, the readers of the audit report should understand that there is a possibility that the above audit report may have to be revised to reflect the impact of such subsequent events or circumstances, if any.

SK hynix Inc. and Subsidiaries
Consolidated Statements of Financial Position
December 31, 2021 and 2020

	Notes		2021		2020
Assets					
Current assets					
Cash and cash equivalents	5,6	₩	5,057,982	₩	2,975,989
Short-term financial instruments	5,6,7		474,637		436,708
Short-term investment assets	5,6		3,139,923		1,535,518
Trade receivables, net	5,6,8,34		8,267,111		4,931,322
Loans and other receivables, net	5,6,8,34		171,464		69,194
Inventories, net	9		8,916,605		6,136,318
Current tax assets			4,113		202
Other current assets	10		838,586		485,672
Other financial assets	5,6,7		30		30
			26,870,451		16,570,953
Non-current assets					
Investments in associates and joint ventures	11		1,410,428		1,166,244
Long-term investment assets	5,6,12		6,665,513		6,139,627
Loans and other receivables, net	5,6,8,34		339,517		75,589
Other financial assets	5,6,7		91,139		353
Property, plant and equipment, net	13,16,35		53,034,270		41,230,562
Right-of-use assets, net	14,34		1,597,344		1,707,645
Intangible assets, net	15		5,065,132		3,400,278
Investment property, net	13,16		164,197		209,417
Deferred tax assets	22,32		590,244		556,194
Employee benefit assets	21		428,962		61,962
Other non-current assets	10		129,277		55,029
			69,516,023		54,602,900
Total assets		₩	96,386,474	₩	71,173,853

SK hynix Inc. and Subsidiaries
Consolidated Statements of Financial Position, Continued
December 31, 2021 and 2020

(In millions of Korean won)	Notes		2021		2020
Liabilities					
Current liabilities					
Trade payables	5,6,34	₩	1,359,247	₩	1,046,159
Other payables	5,6,34,35,38		4,640,677		2,348,909
Other non-trade payables	5,6,17,34		2,278,316		1,367,193
Borrowings	5,6,18,34,35		2,880,763		3,114,250
Provisions	20		10,167		13,797
Current tax liabilities			3,002,734		636,649
Lease liabilities	5,6,14,34		302,059		347,464
Other current liabilities	19		294,780		197,395
Other financial liabilities	5,6,35		613		544
			14,769,356		9,072,360
Non-current liabilities					
Long-term other payables	5,6,35,38		2,699,071		272,396
Other non-trade payables	5,6,17,34		32,433		29,923
Borrowings	5,6,18,35		14,743,046		8,137,398
Defined benefit liabilities, net	21		1,200		2,739
Deferred tax liabilities	22		627,995		266,640
Lease liabilities	5,6,14,34		1,223,703		1,296,252
Other financial liabilities	5,6,23,35		4,606		88,121
Other non-current liabilities	19		94,006		98,927
			19,426,060		10,192,396
Total liabilities			34,195,416		19,264,756
Equity					
Equity attributable to owners of the Parent Company					
Capital stock	24		3,657,652		3,657,652
Capital surplus	24		4,334,643		4,143,736
Other equity	24,37		(2,294,562)		(2,503,122)
Accumulated other comprehensive income(loss)	25		675,271		(405,453)
Retained earnings	26		55,784,068		46,995,728
Total equity attributable to owners of the Parent Company			62,157,072		51,888,541
Non-controlling interests			33,986		20,556
Total equity			62,191,058		51,909,097
Total liabilities and equity		₩	96,386,474	₩	71,173,853

The above consolidated statements of financial position should be read in conjunction with the accompanying notes.

SK hynix Inc. and Subsidiaries
Consolidated Statements of Comprehensive Income
Years Ended December 31, 2021 and 2020

(In millions of Korean won, except per share information)

	Notes		2021	2020
Revenue	4,27,34	₩	42,997,792	31,900,418
Cost of sales	29,34		24,045,600	21,089,789
Gross profit			18,952,192	10,810,629
Selling and administrative expenses	28,29		6,541,852	5,798,005
Operating profit			12,410,340	5,012,624
Finance income	5,30		2,377,516	3,327,905
Finance expenses	5,30		1,469,860	1,980,411
Share of profit of equity-accounted investees	11		162,280	(36,279)
Other income	31		116,135	84,773
Other expenses	31		180,424	171,575
Profit before income tax			13,415,987	6,237,037
Income tax expense	32		3,799,799	1,478,123
Profit for the year			9,616,188	4,758,914
Other comprehensive income (loss)				
Item that will never be reclassified to profit or loss:				
Remeasurements of defined benefit liability, net of tax	21		(13,694)	1,266
Items that are or may be reclassified to profit or loss:				
Foreign operations – foreign currency translation differences, net of tax	25		963,288	(47,407)
Gain (loss) on valuation of derivatives, net of tax	23,25		10,143	(417)
Equity-accounted investees – share of other comprehensive income(loss), net of tax	11,25		111,593	(60,820)
Other comprehensive income (loss) for the year, net of tax			1,071,330	(107,378)
Total comprehensive income for the year		₩	10,687,518	4,651,536
Profit attributable to:				
Owners of the Parent Company		₩	9,602,316	4,755,102
Non-controlling interests			13,872	3,812
Total comprehensive income attributable to:				
Owners of the Parent Company			10,669,346	4,649,850
Non-controlling interests			18,172	1,686
Earnings per share	33			
Basic earnings per share (in won)			13,989	6,952
Diluted earnings per share (in won)			13,984	6,950

The above consolidated statements of comprehensive income should be read in conjunction with the accompanying notes.

SK hynix Inc. and Subsidiaries
Consolidated Statements of Changes in Equity
Years Ended December 31, 2021 and 2020

(In millions of Korean won)

	Notes	Capital stock	Capital surplus	Other equity	Accumulated other comprehensive income (loss)	Retained earnings	Total	Non-controlling interests	Total equity
		Attributable to owners of the Parent Company							
Balance at January 1, 2020		₩ 3,657,652	₩ 4,143,736	₩ (2,504,713)	₩ (298,935)	₩ 42,923,362	₩ 47,921,102	₩ 14,780	₩ 47,935,882
Comprehensive income:									
Profit for the year		-	-	-	-	4,755,102	4,755,102	3,812	4,758,914
Remeasurements of defined benefit liabilities, net of tax	21	-	-	-	-	1,266	1,266	-	1,266
Other comprehensive income of associates, net of tax	11,25	-	-	-	(60,820)	-	(60,820)	-	(60,820)
Loss on valuation of derivatives, net of tax	23,25	-	-	-	(417)	-	(417)	-	(417)
Foreign operations – foreign currency translation differences, net of tax	25	-	-	-	(45,281)	-	(45,281)	(2,126)	(47,407)
Total comprehensive income for the year		-	-	-	(106,518)	4,756,368	4,649,850	1,686	4,651,536
Transactions with owners of the Parent Company:									
Increase of non-controlling interests		-	-	-	-	-	-	4,090	4,090
Dividends paid	26	-	-	-	-	(684,002)	(684,002)	-	(684,002)
Share-based payment	37	-	-	1,591	-	-	1,591	-	1,591
Total transactions with owners of the Parent Company		-	-	1,591	-	(684,002)	(682,411)	4,090	(678,321)
Balance at December 31, 2020		₩ 3,657,652	₩ 4,143,736	₩ (2,503,122)	₩ (405,453)	₩ 46,995,728	₩ 51,888,541	₩ 20,556	₩ 51,909,097

SK hynix Inc. and Subsidiaries
Consolidated Statements of Changes in Equity, Continued
Years Ended December 31, 2021 and 2020

(In millions of Korean won)		Attributable to owners of the Parent Company							
	Notes	Capital stock	Capital surplus	Other equity	Accumulated other comprehensive income (loss)	Retained earnings	Total	Non-controlling interests	Total equity
Balance at January 1, 2021		₩ 3,657,652	₩ 4,143,736	₩ (2,503,122)	₩ (405,453)	₩ 46,995,728	₩ 51,888,541	₩ 20,556	₩ 51,909,097
Comprehensive income:									
Profit for the year		-	-	-	-	9,602,316	9,602,316	13,872	9,616,188
Remeasurements of defined benefit liabilities, net of tax	21	-	-	-	-	(13,694)	(13,694)	-	(13,694)
Other comprehensive income of associate, net of tax	11,25	-	-	-	111,593	-	111,593	-	111,593
Gain on valuation of derivatives, net of tax	23,25	-	-	-	10,143	-	10,143	-	10,143
Foreign operations – foreign currency translation differences, net of tax	25	-	-	-	958,988	-	958,988	4,300	963,288
Total comprehensive income for the year		-	-	-	1,080,724	9,588,622	10,669,346	18,172	10,687,518
Transactions with owners of the Parent Company:									
Dividends paid	26	-	-	-	-	(800,282)	(800,282)	(4,742)	(805,024)
Disposal of treasury stock	24	-	191,247	206,308	-	-	397,555	-	397,555
Share-based payment	37	-	(340)	2,252	-	-	1,912	-	1,912
Total transactions with owners of the Parent Company		-	190,907	208,560	-	(800,282)	(400,815)	(4,742)	(405,557)
Balance at December 31, 2021		₩ 3,657,652	₩ 4,334,643	₩ (2,294,562)	₩ 675,271	₩ 55,784,068	₩ 62,157,072	₩ 33,986	₩ 62,191,058

The above consolidated statements of changes in equity should be read in conjunction with the accompanying notes.

SK hynix Inc. and Subsidiaries
Consolidated Statements of Cash Flows
Years Ended December 31, 2021 and 2020

(In millions of Korean won)	Notes		2021		2020
Cash flows from operating activities					
Cash generated from operations	36	₩	20,951,478	₩	12,916,771
Interest received			17,341		40,635
Interest paid			(240,942)		(288,565)
Dividends received			84,679		16,365
Income tax paid			(1,014,908)		(370,635)
Net cash inflow from operating activities			19,797,648		12,314,571
Cash flows from investing activities					
Decrease in short-term financial instruments			2,572,550		913,591
Increase in short-term financial instruments			(2,600,586)		(1,054,401)
Increase in short-term investment assets, net			(1,548,448)		(115,122)
Decrease in other financial assets			213		773
Increase in other financial assets			(29,830)		(205)
Decrease in loans and other receivables			47,027		36,722
Increase in loans and other receivables			(79,537)		(238,727)
Proceeds from disposal of long-term investment assets			45,972		708
Acquisitions of long-term investment assets			(130,318)		(93,846)
Proceeds from disposal of property, plant and equipment			79,940		59,089
Acquisitions of property, plant and equipment			(12,486,635)		(10,068,662)
Proceeds from disposal of intangible assets			2,073		695
Acquisitions of intangible assets			(973,893)		(800,729)
Proceeds from business transfer			3,000		2,958
Acquisitions of investments in associates			(44,862)		(483,237)
Acquisitions of business			(7,250,087)		-
Net cashflow from acquisition of subsidiaries			1,144		-
Net cash outflow from investing activities			(22,392,277)		(11,840,393)
Cash flows from financing activities					
Proceeds from borrowings	36		8,933,737		5,173,016
Repayments of borrowings	36		(3,320,911)		(3,921,310)
Repayments of lease liabilities	36		(323,975)		(319,740)
Dividends paid			(805,024)		(684,002)
Increase of non-controlling interests			-		4,090
Disposal of treasury stock			8,484		-
Exercise stock-option			2		-
Net cash inflow from financing activities			4,492,313		252,054
Effects of exchange rate changes on cash and cash equivalents			184,309		(56,313)
Net increase in cash and cash equivalents			2,081,993		669,919
Cash and cash equivalents at the beginning of the year			2,975,989		2,306,070
Cash and cash equivalents at the end of the year		₩	5,057,982	₩	2,975,989

The above consolidated statements of cash flows should be read in conjunction with the accompanying notes.

1. General Information

(1) General information about SK hynix Inc. (the "Parent Company") and its subsidiaries (collectively the "Group") is as follows:

The Parent Company manufactures, distributes and sells semiconductor products. The Parent Company was established on October 15, 1949 and its shares have been listed on the Korea Exchange since 1996. The Parent Company's headquarters is located at 2091 Gyeongchung-daero, Bubal-eup, Icheon-si, Gyeonggi-do, South Korea, and the Group has manufacturing facilities in Icheon-si and Cheongju-si, South Korea, and Wuxi and Chongqing, China. In December 2021, by acquiring Intel Nand business, the Group obtained additional production facility in Dalian, China.

As of December 31, 2021, the shareholders of the Parent Company are as follows:

Shareholder	Number of shares	Percentage of ownership (%)
SK Square Co., Ltd.[1]	146,100,000	20.07
Other investors	541,520,673	74.38
Treasury shares	40,381,692	5.55
	728,002,365	100

[1] The largest shareholder of the Parent Company changed to SK Square Co., Ltd. on November 2, 2021, as SK Square Co., Ltd., a new spin-off corporation established by SK Telecom Co., Ltd., succeeded the entire share of the Parent Company held by SK Telecom Co., Ltd.

The Parent Company's common shares and depositary receipts (DRs) are listed on the Stock Market of Korea Exchange and the Luxembourg Stock Exchange, respectively.

1. General Information, Continued

(2) Details of the Group's consolidated subsidiaries as of December 31, 2021 and 2020 are as follows:

Company	Location	Business	Ownership (%) 2021	Ownership (%) 2020
SK hyeng Inc.	Korea	Construction and service	100	100
SK hystec Inc.	Korea	Business support and service	100	100
Happymore Inc.	Korea	Manufacturing cleanroom suits and cleaning	100	100
SK hynix system ic Inc.	Korea	Semiconductor manufacturing and sales	100	100
HappyNarae Co., Ltd.	Korea	Industrial material supply	100	100
SK hynix America Inc.	U.S.A.	Semiconductor sales	97.74	97.74
SK hynix Deutschland GmbH	Germany	Semiconductor sales	100	100
SK hynix Asia Pte. Ltd.	Singapore	Semiconductor sales	100	100
SK hynix Semiconductor Hong Kong Ltd.	Hong Kong	Semiconductor sales	100	100
SK hynix U.K. Ltd.	U.K.	Semiconductor sales	100	100
SK hynix Semiconductor Taiwan Inc.	Taiwan	Semiconductor sales	100	100
SK hynix Japan Inc.	Japan	Semiconductor sales	100	100
SK hynix Semiconductor (Shanghai) Co., Ltd.	China	Semiconductor sales	100	100
SK hynix Semiconductor India Private Ltd.[1]	India	Semiconductor sales	100	100
SK hynix (Wuxi) Semiconductor Sales Ltd.	China	Semiconductor sales	100	100
SK hynix Semiconductor (China) Ltd.	China	Semiconductor manufacturing	100	100
SK hynix Semiconductor (Chongqing) Ltd.[2]	China	Semiconductor manufacturing	100	100
SK hynix Italy S.r.l	Italy	Semiconductor research and development	100	100
SK hynix memory solutions America Inc.	U.S.A.	Semiconductor research and development	100	100
SK hynix memory solutions Taiwan Ltd.	Taiwan	Semiconductor research and development	100	100
SK hynix memory solutions Eastern Europe LLC.	Belarus	Semiconductor research and development	100	100
SK APTECH Ltd.	Hong Kong	Overseas investment	100	100
SK hynix Ventures Hong Kong Limited	Hong Kong	Overseas investment	100	100
SK hynix (Wuxi) Investment Ltd.[3]	China	Overseas investment	100	100
SK hynix (Wuxi) Industry Development Ltd.[4]	China	Foreign hospital construction	100	100
SK hynix Happiness (Wuxi) Hospital Management Ltd.[4]	China	Foreign hospital operation	70	70
SK hynix system ic (Wuxi) Co., Ltd.[5]	China	Overseas Semiconductor manufacturing and sales	100	100
SK hynix cleaning (Wuxi) Ltd.[4]	China	Building maintenance	100	100
SUZHOU HAPPYNARAE Co., Ltd.[6]	China	Overseas industrial material supply	100	100
CHONGQING HAPPYNARAE Co., Ltd.[7]	China	Overseas industrial material supply	100	100
SkyHigh Memory Limited[5]	Hong Kong	Overseas Semiconductor manufacturing and sales	60	60
SK hynix (Wuxi) Education Technology Co.,Ltd.[4]	China	Overseas Education	100	100
Gauss Labs Inc.	U.S.A	Overseas telecommunication of information	100	100
Skyhigh Memory China Limited[10]	China	Semiconductor sales support	60	-
Skyhigh Memory Limited Japan[10]	Japan	Semiconductor sales support	60	-
SK hynix NAND Product Solutions Corp.[8]	U.S.A	Semiconductor sales	100	-

SK hynix NAND Product Solutions Taiwan Co., Ltd.[8]	Taiwan	Semiconductor research and development and sales support	100	-
SK hynix NAND Product Solutions Canada Ltd.[8]	Canada	Semiconductor research and development	100	-
SK hynix NAND Product Solutions Mexico, S. DE R.L. DE C.V.[8]	Mexico	Semiconductor research and development	100	-
SK hynix Semiconductor (Dalian) Co., Ltd.[8]	China	Semiconductor manufacturing	100	-
SK hynix NAND Product Solutions UK Limited[8]	U.K.	Semiconductor sales	100	-
SK hynix NAND Product Solutions Israel Ltd.[8]	Israel	Semiconductor sales support	100	-
SK hynix NAND Product Solutions Japan G.K[8]	Japan	Semiconductor sales	100	-
SK hynix NAND Product Solutions International LLC[8]	U.S.A	Semiconductor sales	100	-
SK hynix NAND Product Solutions Asia Pacific LLC[8]	U.S.A	Semiconductor sales	100	-
SK hynix NAND Product Solutions Singapore Pte. Ltd.[8]	Singapore	Semiconductor sales support	100	-
SK hynix NAND Product Solutions Malaysia Sdn. Bhd.[8]	Malaysia	Semiconductor sales support	100	-
SK hynix NAND Product Solutions Poland sp. z o.o.[8]	Poland	Semiconductor research and development	100	-
SK hynix NAND Product Solutions (Beijing) Co., Ltd.[8]	China	Semiconductor sales support	100	-
SK Hynix NAND Product Solutions (Shanghai) Co., Ltd.[8]	China	Semiconductor research and development	100	-
Intel NDTM US LLC[9]	U.S.A	Semiconductor research and development	-	-
Intel Semiconductor Storage Technology (Dalian) Ltd.[9]	China	Semiconductor manufacturing support	-	-
SK Hynix (Wuxi) Education Service Development Co., Ltd.[11]	China	Overseas education	100	-
HappyNarae America LLC6	U.S.A	Overseas industrial material supply	100	-
HappyNarae Hungary Kft6	Hungary	Overseas industrial material supply	100	-
SK hynix Ventures America LLC	U.S.A	Overseas investment	100	-
MMT (Money Market Trust)	Korea	Money Market Trust	100	100

[1] Subsidiary of SK hynix Asia Pte. Ltd.
[2] Subsidiary of SK APTECH Ltd.
[3] Subsidiary of SK hynix Semiconductor (China) Ltd.
[4] Subsidiary of SK hynix (Wuxi) Investment Ltd.
[5] Subsidiary of SK hynix system ic
[6] Subsidiary of HappyNarae Co., Ltd.
[7] Subsidiary of SUZHOU HAPPYNARAE Co., Ltd.
[8] It has been newly established regarding the acquisition of the Intel NAND business during the year ended December 31, 2021.
[9] Intel holds the legal ownership of these entities as of December 31, 2021 and the Group is expected to acquire ownership through the 2nd Closing of Intel NAND business acquisition expected in 2025. However, the Group consolidated these entities as of December 31, 2021since the Group determined that it has control over these entities.
[10] Subsidiaries SkyHigh Memory China Limited and SkyHigh Memory Limited Japan registered their establishment in March and May 2020, and completed the establishment process by paying capital in April 2021.
[11] Subsidiary of SK hynix (Wuxi) Education Technology Co., Ltd.

1. General Information, Continued

(3) Changes in the Group’s consolidated subsidiaries for the year ended December 31, 2021 are as follows:

Type	Company	Reason
Addition	SkyHigh Memory China Limited	New establishment
Addition	SkyHigh Memory Limited Japan	New establishment
Addition	SK hynix NAND Product Solutions Corp.	New establishment
Addition	SK hynix NAND Product Solutions Taiwan Co., Ltd.	New establishment
Addition	SK hynix NAND Product Solutions Canada Ltd.	New establishment
Addition	SK hynix NAND Product Solutions Mexico, S. DE R.L. DE C.V.	New establishment
Addition	SK hynix Semiconductor (Dalian) Co., Ltd.	New establishment
Addition	SK hynix NAND Product Solutions UK Limited	New establishment
Addition	SK hynix NAND Product Solutions Israel Ltd.	New establishment
Addition	SK hynix NAND Product Solutions Japan G.K.	New establishment
Addition	SK hynix NAND Product Solutions International LLC	New establishment
Addition	SK hynix NAND Product Solutions Asia Pacific LLC	New establishment
Addition	SK hynix NAND Product Solutions Singapore Pte. Ltd.	New establishment
Addition	SK hynix NAND Product Solutions Malaysia Sdn. Bhd.	New establishment
Addition	SK hynix NAND Product Solutions Poland sp. z.o.o.	New establishment
Addition	SK hynix NAND Product Solutions (Beijing) Co., Ltd.	New establishment
Addition	SK Hynix NAND Product Solutions (Shanghai) Co., Ltd.	New establishment
Addition	SK Hynix (Wuxi) Education Service Development Co., Ltd.	New establishment
Addition	HappyNarae America LLC	New establishment
Addition	HappyNarae Hungary Kft	New establishment
Addition	SK hynix Ventures America LLC	New establishment
Addition	Intel NDTM US LLC	Obtains substantial control
Addition	Intel Semiconductor Storage Technology (Dalian) Ltd.	Obtains substantial control

1. General Information, Continued

(4) Major subsidiaries' summarized statements of financial position as of December 31, 2021 and December 31, 2020 are as follows:

(In millions of Korean won)

	December 31, 2021			December 31, 2020		
	Assets	Liabilities	Equity	Assets	Liabilities	Equity
SK hynix system ic Inc.	₩ 1,208,507	₩ 383,496	₩ 825,011	₩ 998,387	₩ 372,463	₩ 625,924
SK hynix America Inc.	4,454,161	3,957,705	496,456	2,722,417	2,330,715	391,702
SK hynix Asia Pte. Ltd.	730,395	633,206	97,189	284,115	197,442	86,673
SK hynix Semiconductor Hong Kong Ltd.	584,669	421,736	162,933	282,273	134,019	148,254
SK hynix U.K. Ltd.	455,626	432,541	23,085	303,729	283,833	19,896
SK hynix Semiconductor Taiwan Inc.	580,449	550,944	29,505	273,651	247,895	25,756
SK hynix Japan Inc.	448,018	374,525	73,493	348,336	278,622	69,714
SK hynix (Wuxi) Semiconductor Sales Ltd.	1,537,853	1,159,683	378,170	1,250,087	1,024,006	226,081
SK hynix Semiconductor (China) Ltd.	13,097,483	7,006,089	6,091,394	11,862,866	6,685,079	5,177,787
SK hynix Semiconductor (Chongqing) Ltd.	1,061,317	314,466	746,851	920,531	317,216	603,315
HappyNarae Co., Ltd.	200,002	141,881	58,121	171,026	116,728	54,298
SK hynix NAND Product Solutions Corp. and subsidiaries	13,095,691	9,626,627	3,469,064	-	-	-

(5) Major subsidiaries' summarized statements of comprehensive income (loss) for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	2021		2020	
	Revenue	Profit (loss)	Revenue	Profit (loss)
SK hynix system ic Inc.	₩ 699,995	₩ 197,568	₩ 702,979	₩ 93,333
SK hynix America Inc.	17,211,443	67,238	12,761,911	53,448
SK hynix Asia Pte. Ltd.	3,205,036	2,700	1,858,091	3,055
SK hynix Semiconductor Hong Kong Ltd.	2,566,377	2,267	1,746,160	6,320
SK hynix U.K. Ltd.	1,328,193	1,357	994,299	1,331
SK hynix Semiconductor Taiwan Inc.	3,016,752	5,219	1,917,103	4,657
SK hynix Japan Inc.	759,183	5,448	551,890	(181)
SK hynix (Wuxi) Semiconductor Sales Ltd.	12,938,905	119,984	10,423,701	90,303
SK hynix Semiconductor (China) Ltd.	4,789,444	43,552	3,936,769	484,677
SK hynix Semiconductor (Chongqing) Ltd.	971,721	71,559	699,558	73,048
HappyNarae Co., Ltd.	925,675	4,354	981,466	4,314
SK hynix NAND Product SolutionsCorp.and subsidiaries	-	(107,483)	-	-
				-

(6) There are no significant non-controlling interests to the Group as of December 31, 2021 and 2020.

2. Significant Accounting Policies

The principal accounting policies applied in the preparation of theses consolidated financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

2.1 Basis of measurement

The Group maintains its accounting records in Korean won and prepares statutory financial statements in the Korean language (Hangul) in accordance with International Financial Reporting Standards as adopted by the Republic of Korea ("Korean IFRS"). The accompanying consolidated financial statements have been condensed, restructured, and translated into English from the Korean language financial statements.

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

- derivative financial instruments are measured at fair value
- financial instruments at fair value through profit or loss are measured at fair value
- assets or liabilities for defined benefit plans are recognized at the net of the total present value of defined benefit obligations less the fair value of plan assets

Korean IFRS permits the use of critical accounting estimates in the preparation of the consolidated financial statements and requires management judgments in applying accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in Note 3.

2.2 Changes in Accounting Policies and Disclosure

2.2.1 New and amended standards or interpretations adopted by the Group

The Group has applied the following new and revised IFRS Standards that are effective from January 1, 2021.

(a) Amendments to Korean IFRS 1116 Lease – Practical expedient for COVID-19-Related Rent Concessions

As a practical expedient, a lessee may elect not to assess whether a rent concession occurring as a direct consequence of the COVID-19 pandemic is a lease modification. A lessee that makes this election shall account for any change in lease payments resulting from the rent concession the same way it would account for the change applying this Standard if the change were not a lease modification. The amendment does not have a significant impact on the financial statements.

(b) Amendments to Korean IFRS 1109 Financial Instruments, Korean IFRS 1039 Financial Instruments: Recognition and Measurement and Korean IFRS 1107 Financial Instruments: Disclosure, Korean IFRS 1104 Insurance Contracts, Korean IFRS 1116 Lease – Interest Rate Benchmark Reform (Phase 2 amendments)

In relation to interest rate benchmark reform, the amendments provide exceptions including adjust effective interest rate instead of book amounts when interest rate benchmark of financial instruments at amortized costs is replaced, and apply hedge accounting without discontinuance although the interest rate benchmark is replaced in hedging relationship.

2. Significant Accounting Policies, Continued

2.2.2 New and amended standards or interpretations not yet adopted by the Group

The following new accounting standards and interpretations that have been published that are not mandatory for December 31, 2021 reporting periods and have not been early adopted by the Group.

(a) Amendments to Korean IFRS 1116 Lease – Practical expedient for COVID-19-Related Rent, Concessions beyond June 30, 2021

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

(b) Amendments to Korean IFRS 1103 Business Combination – Reference to the Conceptual Framework

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

(c) Amendemts to Korean IFRS 1016 Property, plant and equipment – Proceeds before intended use

The amendments prohibit an entity from deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while the entity is preparing the asset for its intended use. Instead, the entity will recognize the proceeds from selling such items, and the costs of producing those items, in profit or loss. The amendments should be applied for annual periods beginning on or after January 1, 2022, and earlier application is permitted. The Group is in review for the impact of these amendments on the financial statements.

(d) Amendments to Korean IFRS 1037 Provision and Contingent liabilities and Contingent assets – Onerous contracts : Cost of fulfilling a Contract

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

2. Significant Accounting Policies, Continued

2.2.2 New and amended standards or interpretations not yet adopted by the Group, Continued

(e) Amendments to Korean IFRS 1001 Presentation of Financial Statements - Classification of Liabilities as Current or Non-current

The amendments clarify that liabilities are classified as either current or non-current, depending on the substantive rights that exist at the end of the reporting period. Classification is unaffected by the likelihood that an entity will exercise right to defer settlement of the liability or the expectations of management. Also, the settlement of liability includes the transfer of the entity's own equity instruments, however, it would be excluded if an option to settle them by the entity's own equity instruments if compound financial instruments is met the definition of equity instruments and recognized separately from the liability. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the financial statements.

(f) Amendments to Korean IFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies

The amendments to Korean IFRS 1001 define and require entities to disclose their material accounting policies. The IASB amended IFRS Practice Statement 2 Disclosure of Accounting Policies to provide guidance on how to apply the concept of materiality to accounting policy disclosures. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the financial statements.

(g) Amendments to Korean IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors - Definition of Accounting Estimates

The amendments define accounting estimates and clarify how to distinguish them from changes in accounting policies. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group does not expect that these amendments have a significant impact on the financial statements.

(h) Amendments to Korean IFRS 1012 Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction

The amendments include an additional condition to the exemption to initial recognition of an asset or liability that a transaction does not give rise to equal taxable and deductible temporary differences at the time of the transaction. The amendments should be applied for annual periods beginning on or after January 1, 2023, and earlier application is permitted. The Group is in review for the impact of these amendments on the financial statements.

2. Significant Accounting Policies, Continued

2.2.2 New and amended standards or interpretations not yet adopted by the Group, Continued

(i) Annual Improvements to Korean IFRS 2018-2020

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

- Korean IFRS 1101 *First-time Adoption of Korean International Financial Reporting Standards :* Subsidiaries that are first-time adopters
- Korean IFRS 1109 *Financial Instruments* : Fees in the '10% Test' for Derecognition of Financial Liabilities
- Korean IFRS 1116 *Lease* : Lease Incentives
- Korean IFRS 1041 *Agriculture* : Fair Value Measurement

2.3 Operating Segments

An operating segment is a component of the Group that: 1) engages in business activities from which it may earn revenues and incur expenses, including revenues and expenses that relate to transactions with other components of the Group, 2) whose operating results are reviewed regularly by the Group's chief operating decision maker ("CODM") in order to allocate resources and assess its performance, and 3) for which discrete financial information is available. The Group's CODM is the board of directors, who do not receive and therefore do not review discrete financial information for any component of the Group. Accordingly, no operating segment information is included in these consolidated financial statements. Entity wide disclosures of geographic, product and customer information are provided in note 4 and 27.

2. Significant Accounting Policies, Continued

2.4 Consolidation

(a) Business combination

A business combination is accounted for by applying the acquisition method, unless it is a combination involving entities or businesses under common control.

The consideration transferred in the acquisition is generally measured at fair value, as are the identifiable net assets acquired. Any goodwill that arises is tested annually for impairment. Any gain on a bargain purchase is recognized in profit or loss immediately. Transaction costs are expensed as incurred and during period of service, except if related to the issue of debt or equity securities according to K-IFRS No. 1032 and K-IFRS No. 1109.
The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognized in profit or loss.

Any contingent consideration is measured at fair value at the date of acquisition. If an obligation to pay contingent consideration that meets the definition of a financial instrument is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes in the fair value of the contingent consideration are recognized in profit or loss.

If share-based payment awards (replacement awards) are required to be exchanged for awards held by the acquiree's employees (acquiree's awards), then all or a portion of the amount of the acquirer's replacement awards is included in measuring the consideration transferred in the business combination. This determination is based on the market-based measure of the replacement awards compared with the market-based measure of the acquiree's awards and the extent to which the replacement awards relate to pre-combination service.

(b) Non-controlling interests

Non-controlling interests are measured at their proportionate share of the acquiree's identifiable net assets at the date of acquisition.

Changes in the Group's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

2. Significant Accounting Policies, Continued

2.4 Consolidation, Continued

(c) Subsidiaries

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the entity. Consolidation of an investee begins from the date the Group obtains control of the investee and cease when the Group loses control of the investee.

(d) Loss of control

If the Group loses control of a subsidiary, the Group derecognizes the assets and liabilities of the former subsidiary from the consolidated statement of financial position and recognizes gain or loss associated with the loss of control attributable to the former controlling interest. Any investment retained in the former subsidiary is recognized at its fair value when control is lost.

(e) Interests in equity-accounted investees

The Group's interest in equity-accounted investees comprise interests in an associate and a joint venture. An associate are these entities in which the Group has significant influence, but not control or joint control, over the entity's financial and operating policies. A joint venture is an arrangement in which the Group has joint control, whereby the Group has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in associates and the joint venture are initially recognized at cost including transaction costs. Subsequent to initial recognition, their carrying amounts are increased or decreased to recognize the Group's share of the profit or loss and changes in equity of the associate or the joint venture. Distributions from equity-accounted investees are accounted for as deduction from the carrying amounts.

(f) Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealized income and expenses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. The Group's share of unrealized gain incurred from transactions with equity-accounted investees are eliminated and unrealized loss are eliminated using the same basis if there are no evidence of asset impairments.

(g) Business combinations under common control

The assets and liabilities acquired in the combination of entities or business under common control are recognized at the carrying amounts recognized previously in the consolidated financial statements of the ultimate parent. The difference between consideration transferred and carrying amounts of net assets acquired is added to or deducted from other capital adjustments.

2.5 Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with maturities of three months or less from the acquisition date that are subject to an insignificant risk of changes in their fair value, and are used by the Group in the management of its short-term commitments.

2. Significant Accounting Policies, Continued

2.6 Inventories

The cost of inventories is based on the weighted average method (except for goods in-transit that is based on the specific identification method), and includes expenditures incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing inventories to their existing location and condition. In the case of manufactured inventories and work-in-process, cost includes an appropriate share of production overheads based on the actual capacity of production facilities. However, the normal capacity is used for the allocation of fixed production overheads if the actual level of production is lower than the normal capacity.
Inventories are measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and selling expenses. The amount of any write-down of inventories to net realizable value and all losses of inventories shall be recognized as an expense in the period the write-down or loss occurs. The amount of any reversal of any write-down of inventories, arising from an increase in net realizable value, shall be recognized as a reduction in the amount of inventories recognized as an expense in the period in which the reversal occurs.

2.7 Trade Receivables

The trade receivables are initially recognized at fair value if it does not include a significant financing component, such as unconditional consideration if it includes a significant financing component. The trade receivables are subsequently measured by subtracting the loss allowance from the amotized cost applied with the effective interest method. (See footnote 8 for additional information on the accounting for the Group's trade receivables, and 6.(1) for accounting for impairment)

2.8 Non-derivative financial assets

(a) Initial recognition and measurement

Trade and other receivables, and debt investment are initially recognized when they are originated. Other financial assets and financial liabilities are recognized when the Group becomes a party to the contractual provisions of the instruments.

A financial asset and financial liability (unless it is an account receivable - trade without a significant financing component that is initially measured at the transaction price) are 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.

(b) Classification and subsequent measurements

On initial recognition, a financial asset is classified as measured at: amortized cost; fair value through other comprehensive income (FVOCI) - debt investment; FVOCI - equity investment; or FVTPL. The classification of financial assets is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. In case of changing its business model, all affected financial asset are reclssified on the first day of the first reporting period after the change in the business model.

A financial asset is measured at amortized cost 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 to hold assets to collect contractual cash flow; 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 debt investments 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

2. Significant Accounting Policies, Continued

2.8 Non-derivative financial assets, Continued

(b) Classification and subsequent measurements, Continued

- 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 investment-by-investment basis and irrevocable election can be made at initial recognition.

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets. On initial recognition, the Group may irrevocably designate a financial asset that otherwise 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.

The Group makes an assessment of the objective of the business model in which, financial assets is held at a portfolio level because this best reflects the way the business is managed and information is provided to management. The information considered includes:

- The stated policies and objectives for the portfolio and the operation of those policies in practice;
- how the performance of the business model and the financial assets held within that business model are evaluated and reported to the entity's key management personnel;
- the risks that affect the performance of the business model (and the financial assets held within that business model) and, in particular, the way in which those risks are managed;
- how managers of the business are compensated (e.g. whether the compensation is based on the fair value of the assets managed or on the contractual cash flows collected); and
- the frequency, volume and timing of sales of financial assets in prior periods, the reason for those sales and expectation about future sales activity for financial asset.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, consistent with the Group's continuing recognition of the assets.

For the purpose 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 (e.g. liquidity risk and administrative 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).

2. Significant Accounting Policies, Continued

2.8 Non-derivative financial assets, Continued

(b) Classification and subsequent measurements, Continued

A prepayment feature is consistent with the solely payments of principal and interest criterion if the prepayment amount substantially represents unpaid amounts of principal and interest on the principal amount outstanding, which may include reasonable additional compensation for early termination of the contract. Additionally, for a financial asset acquired at a discount or premium to its contractual par amount, a feature that permits or requires prepayment at an amount that substantially represents the contractual par amount plus accrued (but unpaid) contractual interest (which may also include reasonable additional compensation for early termination) is treated as consistent with this criterion if the fair value of the prepayment feature is insignificant at initial recognition.

The following accounting policies apply to subsequent measurements of financial assets.

Financial assets at FVTPL	These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.
Financial assets at amortized cost	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 are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.
Debt investments at FVOCI	These assets are subsequently measured at fair value. Interest income is 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 OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.
Equity investments at FVOCI	These assets 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 OCI and are never reclassified to profit or loss.

(c) De-recognition

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all 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 financial position, but retain either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognized.

2. Significant Accounting Policies, Continued

2.8 Non-derivative financial assets, Continued

(d) Offsetting between financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is presented in the consolidated statement of financial position only when the Group currently has a legally enforceable right to offset the recognized amounts, and there is the intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

2.9 Derivative financial instruments

Derivatives are initially recognized at fair value. Subsequent to initial recognition, derivatives are measured at fair value at the end of each reporting period, and changes in the fair value of derivatives therein are accounted for as described below.

(a) Hedge accounting

The Group enters into a fixed-to-fixed cross currency swap contract and a floating-to-fixed cross currency interest rate swap contract to hedge interest rate risk and currency risk.

On initial designation of the hedge, the Group formally documents the relationship between the hedging instrument(s) and hedged item(s), including the risk management objectives and strategy in undertaking the hedge transaction. In addition, the document includes hedging instruments; hedged items; initial commencement date of those hedge relationship; fair value of hedged items based on hedged risk during the subsequent period; and the method of valuation on hedging instruments offsetting changes in cash flow.

- Cash flow hedge

When a derivative is designated to hedge the variability in cash flows attributable to a particular risk associated with a recognized asset or liability, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income, net of tax, and presented in accumulated other comprehensive income. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss. If the hedging instrument no longer meets the criteria for hedge accounting, expires or is sold, terminated, exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. The cumulative gain or loss on the hedging instrument that has been recognized in other comprehensive income is reclassified to profit or loss in the periods which the forecasted transaction occurs.

(b) Other derivative financial instruments

Other derivative financial instrument not designated as a hedging instrument are measured at fair value, and the changes in fair value of the derivative financial instrument is recognized immediately in profit or loss.

2. Significant Accounting Policies, Continued

2.10 Impairment of financial assets

(a) Recognition of impairment on financial assets

The Group recognizes loss allowances for expected credit losses (ECLs) on:
- financial assets measured at amortized costs; and
- contract assets.

The Group measures impairment losses at an amount equal to lifetime ECLs except for the below assets, which are measured at 12-month ECLs.
- credit risk of debt instruments is low at the end of reporting date
- credit risk has not increased significantly since the initial recognition of debt investment (lifetime ECL: ECL that resulted from all possible default events over the expected life of a financial instrument)

The Group adopted an accounting policy to recognize loss allowances at an amount equal to lifetime expected credit losses for trade receivables and contract assets.
In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition and estimating expected credit loss, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

Lifetime expected credit losses are the expected credit losses 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 all 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.

(b) Measurement of expected credit loss

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 entity 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 instrument.

(c) Credit-impaired financial instrument

A debt instrument carried at amortized cost and fair value through other comprehensive income (FVOCI) is assessed at the end of each reporting period to determine whether there is objective evidence that it is impaired. A financial asset is credit- impaired when one or more events that have a detrimental impact on the estimated future cash flows of that asset have occurred.

Objective evidence that a financial asset is impaired includes:

- significant financial difficulty of the issuer or borrower;
- a breach of contract, such as default or delinquency in interest or principal payments;
- the Group, for economic or legal reasons relating to the borrower's financial difficulty, granting to the borrower a concession that the Group would not otherwise consider;
- it becomes probable that the borrower will enter bankruptcy or other financial reorganization; or

the disappearance of an active market for the financial asset because of financial difficulties.

2. Significant Accounting Policies, Continued

2.10 Impairment of financial assets, Continued

(d) Presentation of credit loss allowance on financial position
Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets.

(e) Write-off
The Group writes off a financial asset when it has no reasonable expectations of recovering the contractual cash flows on a financial asset in its entirety or a portion thereof. For corporate customers, the Group individually makes an assessment with respect to the timing and amount of write-off based on whether there is a reasonable expectation of recovery. However financial assets that are written off could still be subject to collection activities according to the Group's past due collection process.

2.11 Property, plant and equipment

Property, plant and equipment are initially measured at cost. The cost of property, plant and equipment includes expenditures arising directly from the construction or acquisition of the asset, any costs 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 and the initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located.

Subsequent to initial recognition, an item of property, plant and equipment is carried at its cost less any accumulated depreciation and any accumulated impairment losses.

Subsequent costs are recognized in the carrying amount of property, plant and equipment at cost or, if appropriate, as separate items if it is probable that future economic benefits associated with the cost will flow to the Group and it can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day repair and maintenance are recognized in profit or loss as incurred.

Property, plant and equipment, except for land, are depreciated on a straight-line basis over estimated useful lives that appropriately reflect the pattern in which the asset's future economic benefits are expected to be consumed.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property, plant and equipment and are recognized as other income or expenses.

The estimated useful lives of the Group's property, plant and equipment are as follows:

	Useful lives (years)
Buildings	10 - 50
Structures	10 - 20
Machinery	5 - 15
Vehicles	5 - 10
Other	5 - 10

Depreciation methods, useful lives, and residual values are reviewed at the end of each reporting period and, if appropriate, accounted for as changes in accounting estimates.

2. Significant Accounting Policies, Continued

2.12 Borrowing costs

The Group capitalizes borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset. Other borrowing costs are recognized in expense as incurred. A qualifying asset is an asset that requires a substantial period of time to get ready for its intended use or sale. Financial assets and inventories that are manufactured or otherwise produced over a short period of time are not qualifying assets. Assets that are ready for their intended use or sale when acquired are not qualifying assets.

To the extent that the Group borrows funds specifically for the purpose of obtaining a qualifying asset, the Group determines the amount of borrowing costs eligible for capitalization as the actual borrowing costs incurred on that borrowing during the period less any investment income on the temporary investment of those borrowings. To the extent that the Group borrows funds generally and uses them for the purpose of obtaining a qualifying asset, the Group determines the amount of borrowing costs eligible for capitalization by applying a capitalization rate to the expenditures on that asset. The capitalization rate is the weighted average of the borrowing costs applicable to the borrowings of the Group that are outstanding during the period, other than borrowings made specifically for the purpose of obtaining a qualifying asset. The amount of borrowing costs that the Group capitalizes during a period does not exceed the amount of borrowing costs incurred during that period.

2.13 Intangible assets

Intangible assets are measured initially at cost and, subsequently, are carried at cost less accumulated amortization and accumulated impairment losses.

Goodwill arising from business combinations is recognized as the excess of the consideration transferred in the acquisition over the net fair value of the identifiable assets acquired and liabilities assumed. Any deficit is a bargain purchase that is recognized in profit or loss. Goodwill is measured at cost less accumulated impairment losses.

Amortization of intangible assets is calculated on a straight-line basis over the estimated useful lives of intangible assets from the date that they are available for use. The residual value of intangible assets is zero. However, certain intangible assets are determined as having indefinite useful lives and not amortized as there is no foreseeable limit to the period over which the assets are expected to be available for use.

The estimated useful lives of the Group's intangible assets are as follows:

	Useful lives (years)
Industrial rights	5 - 10
Development costs	2
Other intangible assets	4 - 20

Useful lives and the amortization methods for intangible assets with finite useful lives are reviewed at the end of each reporting period. The useful lives of intangible assets that are not being amortized are reviewed at the end of each reporting period to determine whether events and circumstances continue to support indefinite useful life assessments for those assets. Changes are accounted for as changes in accounting estimates.

Expenditures on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in profit or loss as incurred. Development expenditures are capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Other development expenditures are recognized in profit or loss as incurred.

2. Significant Accounting Policies, Continued

2.13 Intangible assets, continued

Subsequent expenditures are capitalized only when they increase the future economic benefits embodied in the specific asset to which it relates. All other expenditures, including expenditures on internally generated goodwill and others, are recognized in profit or loss as incurred.

2.14 Government grants

Government grants are not recognized unless there is reasonable assurance that the Group will comply with the grant's conditions and that the grant will be received.

(a) Grants related to assets

Government grants whose primary condition is that the Group purchases, constructs or otherwise acquires non-current assets are deducted in calculating the carrying amount of the asset. The grant is recognized in profit or loss over the useful lives of depreciable assets.

(b) Grants related to income

Government grants which are intended to compensate the Group for expenses incurred are recognized in profit or loss by as deduction of the related expenses.

2.15 Investment property

Property held for the purpose of earning rental income or benefiting from capital appreciation is classified as investment property. Investment property is initially measured at its cost. Transaction costs are included in the initial measurement. Subsequently, investment property is carried at cost less accumulated depreciation and impairment losses.

Subsequent costs are recognized in the carrying amount of investment property at cost or, if appropriate, as separate items if it is probable that future economic benefits associated with the cost will flow to the Group and it can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day repair and maintenance are recognized in profit or loss as incurred.

Investment property is depreciated on a straight-line basis over 40 years.

Depreciation methods, useful lives and residual values are reviewed at the end of each reporting period and, if appropriate, accounted for as changes in accounting estimates.

2.16 Impairment of non-financial assets

The carrying amounts of the Group's non-financial assets, other than assets arising from employee benefits, inventories, and deferred tax assets, are reviewed at the end of the reporting period to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and intangible assets that have indefinite useful lives or that are not yet available for use, irrespective of whether there is any indication of impairment, are tested for impairment annually by comparing their recoverable amount to their carrying amount.

The Group estimates the recoverable amount of an individual asset; however if it is impossible to measure the individual recoverable amount of an asset, the Group estimates the recoverable amount of cash-generating unit ("CGU"). A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets. The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell.

2. Significant Accounting Policies, Continued

2.16 Impairment of non-financial assets, continued

The value in use is estimated by applying a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU for which estimated future cash flows have not been adjusted, to the estimated future cash flows expected to be generated by the asset or CGU.

An impairment loss is recognized if the carrying amount of an asset or a CGU exceeds its recoverable amount.

Goodwill acquired in a business combination is allocated to each CGU that is expected to benefit from the synergies arising from business combination. Any impairment identified at the CGU level will first reduce the carrying value of goodwill and then be used to reduce the carrying amount of the other assets in the CGU on a pro rata basis.

Except for impairment losses in respect of goodwill, which are never reversed, an impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

2.17 Trade payables and other payables

Trade payables and other payables are liabilities that the Group has received but have not been paid for goods or services before the end of the reporting period. The liability is unsecured and it usually paid within 30 days of recognition. Trade payables and other payables were marked current unless the due date was 12 months after the reporting period. Those liabilities are initially recognized at fair value and subsequently measured at amortized cost using the effective interest method.

2.18 Leases

The Group assesses whether a contract is or contains a lease at inception of a contract. Under K-IFRS No. 1116, a contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration.

(i) As a lessee

The Group recognizes for a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, 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 of the underlying asset, or to restore the underlying asset or the site on which the underlying asset 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 end of the lease term. In case that ownership of the right-of-use asset is transferred at the end of the lease term, or the cost of the right-of-use asset includes the exercise price of a purchase option, the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset may be reduced by an impairment loss or adjusted for remeasurements of the lease liability.

2. Significant Accounting Policies, Continued

2.18 Leases, Continued

(i) As a lessee, Continued

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 readily determined, the Group's incremental borrowing rate. The Group generally uses its incremental borrowing rate as the discount rate.
Lease payments included in the measurement of the lease liability consist of the following:
- fixed payments (including in-substance fixed payments)
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date
- amounts expected to be payable under a residual value guarantee
- the exercise price under a purchase option that the Group is reasonably certain to exercise
- lease payments in an optional renewal period, if the Group is reasonably certain to exercise extension option, and penalties for early termination of a lease unless the Group is reasonably certain not to terminate early.

The lease liability is subsequently increased by the interest expense recognized for the lease liability and decreased by reflecting the payment of the lease. The lease liability is remeasured when there is a change in future lease payments arising from changes in an index or a rate (interest rate), if there's a change in the Group's estimate of the amount expected to be paid under a residual value guarantee, or if the Group changes in the assessment of whether the option to buy or extend is reasonably certain to be exercised or not to exercise the termination option.

When the lease liabilities are remeasured, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

A lessee shall remeasure the lease liability as an adjustment to the right-of-use asset, if either:
- a change in the lease term or a change in circumstances or significant events that result in a change in the assessment of the exercise of the purchase option. In such cases, the lease liability is remeasured by discounting the modified lease payment at the revised discount rate;

- the lease payment changes due to changes in the index or rate (interest rate) or the amount expected to be paid according to the residual value guarantee. In such cases, the lease liability measures the modified lease fee again by discounting it at an unchanged discount rate. However, if a change in the variable interest rate causes a change in the lease payments, the revised discount rate that reflects the change in interest rates is used; or

- the lease agreement changes and is not accounted for as a separate lease. In such cases, the lease liability is remeasured by discounting the modified lease payment at the revised discount rate as of the effective date of the lease change, based on the lease term of the modified lease.

The Group has elected not to recognize right-of-use assets and lease liabilities for some leases of low-value assets and short-term leases. The Group recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

2. Significant Accounting Policies, Continued

2.18 Leases, Continued

(i) As a lessee, Continued

At inception or on reassessment of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease and non-lease component on the basis of their relative stand-alone prices. However, for certain agreements, the Group has elected practical expedient not to separate non-lease components and account for the lease and non-lease components as a single lease component.

The Group separately presents right-of-use assets that do not meet the definition of investment property in the statement of financial position.

Subsequently, the right-of-use asset is accounted for consistently with the accounting policies applicable to the asset.

(ii) As a lessor

As a lessor, the Group determines whether the lease is a finance lease or an operating lease at the inception of the lease.

To classify each lease, the Group generally determines whether the lease transfers most of the risks and rewards of ownership of the underlying asset. If most of the risks and rewards of ownership of the underlying asset are transferred to the lessee, the lease is classified as a finance lease, otherwise the lease is classified as an operating lease. As part of this assessment, the Group considers whether the lease term represents a significant portion of the economic life of the underlying asset.

When the Group is an intermediate lessor, it accounts for its interests in the head lease and the sublease separately. In addition, the classification of a lease is determined by the right-of-use asset arising from the head lease, not the underlying asset. If a head lease is a short-term lease to which the Group applies the recognition exemption, then the sub-lease is classified as an operating lease.

The Group has applied K-IFRS No. 1115 *'Revenue from Contracts with Customers'* to allocate consideration in the contract to each lease and non-lease components.

The Group recognizes the lease payments received from operating leases on a straight-line basis over the lease term as revenue in 'other revenue'.

The accounting policies that the Group has applied to the comparative period as lessors are not different from those in K-IFRS No. 1116.

2. Significant Accounting Policies, Continued

2.19 Non-derivative financial liabilities

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

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

Financial liabilities at fair value through profit or loss include financial liabilities held for trading or designated as such upon initial recognition. Subsequent to initial recognition, financial liabilities at fair value through profit or loss are measured at fair value, and changes therein are recognized in profit or loss. Upon initial recognition, any directly attributable transaction costs are recognized in profit or loss as incurred.

(b) Other financial liabilities

Non-derivative financial liabilities other than financial liabilities at fair value through profit or loss are classified as other financial liabilities. At the date of initial recognition, other financial liabilities are measured at fair value less any directly attributable transaction costs. Subsequent to initial recognition, other financial liabilities are measured at amortized cost using the effective interest rate method.

(c) Derecognition of financial liability

The Group derecognizes financial liability when its contractual obligations are discharged, cancelled or expire. 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 extinguished and the consideration paid (including any non-cash assets transferred of liabilities assumed) is recognized in profit or loss.

2.20 Employee benefits

(a) Short-term employee benefits

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

(b) Other long-term employee benefits

Other long-term employee benefits include employee benefits that are settled beyond 12 months after the end of the reporting period in which the employees render the related service, and are calculated at the present value of the amount of future benefit that employees have earned in return for their service in the current and prior periods. Remeasurements are recognized in profit or loss in the period in which they arise.

(c) Retirement benefits: defined benefit plans

As of the end of reporting period, defined benefits liabilities relating to defined benefit plans are recognized as present value of defined benefit obligations, net of fair value of plan assets.

The calculation is performed annually by an independent actuary using the projected unit credit method. When the fair value of plan assets exceeds the present value of the defined benefit obligation, the Group recognizes an asset, to the extent of the present value of any economic benefits available in the form of refunds from the plan or reduction in the future contributions to the plan.

2. Significant Accounting Policies, Continued

2.20 Employee benefits, Continued

(c) Retirement benefits: defined benefit plans, Continued

Remeasurements of the net defined benefit liability (asset) comprise of actuarial gains and losses, the return on plan assets excluding amounts included in net interest on the net defined benefit liability (asset), and any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset), and are recognized in other comprehensive income.

The Group determines net interests on net defined benefit liability (asset) by multiplying discount rate determined at the beginning of the annual reporting period and considers changes in net defined benefit liability (asset) from contributions and benefit payments. Net interest costs and other costs relating to the defined benefit plan are recognized through 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 or losses on a settlement of defined benefit plan when the settlement occurs.

(d) Retirement benefits: defined contribution plans

When an employee has provided service for a certain period of time in relation to the defined contribution plan, the contribution to the defined contribution plan is recognized in profit or loss except to be included in the cost of the asset. The contributions to be paid are recognized as liabilities (accrued expenses) less the contributions that have been already paid.

(e) Termination benefits

The Group recognizes a liability and expense for termination benefits at the earlier of the period when the Group can no longer withdraw the offer of those benefits and the period when the Group recognizes costs for a restructuring. If benefits are not payable within 12 months after the end of the reporting period, then they are discounted to their present value.

2.21 Provisions

Provisions are recognized when the Group has a present legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

The risks and uncertainties that inevitably surround many events and circumstances are taken into account in reaching the best estimate of a provision. Where the effect of the time value of money is material, provisions are determined at the present value of the expected future cash flows.

Where some or all of the expenditures required to settle a provision are expected to be reimbursed by another party, the reimbursement is recognized when, and only when, it is virtually certain that reimbursement will be received if the Group settles the obligation. The reimbursement is treated as a separate asset.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimates. If it is no longer probable that an outflow of resources embodying economic benefits will be required to settle the obligation, the provision is reversed.

A provision is used only for expenditures for which the provision was originally recognized.

2. Significant Accounting Policies, Continued

2.22 Emissions Rights

The Group accounts for greenhouse gases emission right and the relevant liability as below pursuant to the *Act on Allocation and Trading of Greenhouse Gas Emission* in Korea.

(a) Greenhouse Gases Emission Right

Greenhouse Gases Emission Right consists of emission allowances, which are allocated from the government free of charge or purchased from the market. The cost includes any directly attributable costs incurred during the normal course of business.

Emission rights held for the purpose of performing the obligation are classified as intangible asset and are initially measured at cost and after initial recognition are carried at cost less accumulated impairment losses. Emission rights held for short-swing profits are classified as current asset and are measured at fair value with any changes in fair value recognized as profit or loss in the respective reporting period.

The Group derecognizes an emission right asset when the emission allowance is unusable, disposed or submitted to government in which the future economic benefits are no longer expected to be probable.

(b) Emission liability

Emission liability is a present obligation of submitting emission rights to the government with regard to emission of greenhouse gas. Emission liability is recognized when it is probable that outflows of resources will be required to settle the obligation and the costs required to perform the obligation are reliably estimable. Emission liability is an amount of estimated obligations for emission rights to be submitted to the government for the performing period. The emission liability is measured based on the expected quantity of emission for the performing period in excess of emission allowance in possession and the unit price for such emission rights in the market at the end of the reporting period.

2.23 Foreign currencies

(a) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are retranslated to the functional currency at the exchange rate at the reporting data. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are translated to the functional currency at the exchange rate at the date that the fair value was determined.

Foreign currency differences arising on the settlement or retranslation of monetary items are recognized in profit or loss, except for differences arising on the retranslation of the net investment in a foreign operation, which are recognized in other comprehensive income. When a gain or loss on a non-monetary item is recognized in other comprehensive income, any exchange component of that gain or loss is recognized in other comprehensive income. Conversely, when a gain or loss on a non-monetary item is recognized in profit or loss, any exchange component of that gain or loss is recognized in profit or loss.

(b) Foreign operations

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

The assets and liabilities of foreign operations, whose functional currency is not the currency of a hyperinflationary economy, are translated to presentation currency at exchange rates at the end of reporting period. The income and expenses of foreign operations are translated to functional currency at average exchange rates. Foreign currency differences are recognized in other comprehensive income.

2. Significant Accounting Policies, Continued

2.23 Foreign currencies, Continued

(b) Foreign operations, Continued

Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of that foreign operation is treated as assets and liabilities of the foreign operation. Thus, they are expressed in the functional currency of the foreign operation and translated at the exchange rates at the end of reporting date.

When a foreign operation is disposed of, the relevant amount in the translation is transferred to profit or loss as part of the profit or loss on disposal. On the partial disposal of a subsidiary that includes a foreign operation, the relevant proportion of such cumulative amount is reattributed to non-controlling interest. In any other partial disposal of a foreign operation, the relevant proportion is reclassified to profit or loss.

2.24 Equity capital

Ordinary shares are classified as equity. Incremental costs directly attributable to the issuance of ordinary shares is recognized as a deduction from equity, net of any tax effects.

When the Group repurchases its share capital, the amount of the consideration paid is recognized as a deduction from equity and classified as treasury shares. The profits or losses from the purchase, disposal, reissue, or retirement of treasury shares are not recognized as current profit or loss. If the Group acquires and disposes treasury shares, the consideration paid or received is directly recognized in equity.

2.25 Share-based payment

The Group has granted shares or share options to its employees. For equity-settled share-based payment transactions, the Group measures the goods or services received, and the corresponding increase in equity as a capital adjustment at the fair value of the goods or services received, unless that fair value cannot be estimated reliably. If the Group cannot reliably estimate the fair value of the goods or services received, the Group measures their value, and the corresponding increase in equity, indirectly, by reference to the fair value of the equity instruments granted. If the fair value of the equity instruments cannot be estimated reliably at the measurement date, the Group measures them at their intrinsic value and recognizes the goods or services received based on the number of equity instruments that ultimately vest.

For cash-settled share-based payment transactions, the Group measures the goods or services acquired and the liability incurred at the fair value of the liability. Until the liability is settled, the Group remeasures the fair value of the liability at each reporting date and at the date of settlement, with changes in fair value recognized in profit or loss for the period.

The Group accounts for share-based payment, with options to choose either cash-settled or equity-settled share-based payment, in accordance with the substance of transactions.

2. Significant Accounting Policies, Continued

2.26 Revenue from contracts with customers

Revenue is measured based on the promised consideration specified in a contract with a customer. The Group recognizes revenue when the Group transfers a promised good or service to a customer.

Revenue is recognized when the customer obtains control of that asset, which is typically upon delivery or shipment depending on the terms of the contract.

When the good is defective, the customer is granted the right to return the defective goods in exchange for a functioning product or cash.

Revenue is measured at the amount of consideration for the sale of goods, reflecting the expected amount of return estimated through historical information. The Group's right to recover products from customers and refund liability are recognized.

Refund liability is initially measured at the former carrying amount of the product less any expected costs to recover those products. Refund liability is included in other current liabilities (See note 18) and right to recover products from customers is included in other current assets (See note 9).The Group reviews its estimate of expected returns at the end of each reporting period and updates the amounts of the asset and liabilities accordingly.
Income tax expense comprises current and deferred tax. Current and deferred tax are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

2.27 Finance income and finance expenses

The Group's finance income and finance expenses include:
- Interest income;
- Interest expense;
- Dividend income;
- The net gain or loss on financial assets at fair value through profit or loss;
- Gain or loss on foreign exchange(currency) translation for financial asset and liabilities;
- Impairment losses and reversals on investment in debt securities carried at amortized cost method; and
- The gain on the remeasurement to fair value of any pre-existing interest in an acquire in a business combination

The Group uses effective interest rate method for recognizing interest income and expense. Dividend income is recognized in profit or loss on the date that the Group's right to receive dividend is established.

The 'effective interest rate' is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument to:
- The gross carrying amount of the financial asset; or
- The amortized cost of the financial liability

In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortized cost of the liability. However, for financial assets that have become credit-impaired subsequent to initial recognition, interest income is calculated by applying the effective interest rate to the amortized cost of the financial asset. If the asset is no longer credit-impaired, then the calculation of interest income reverts to the gross basis.

2. Significant Accounting Policies, Continued

2.28 Income taxes

Income tax expense comprises current and deferred tax. Current and deferred tax are recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

(a) Current tax

Current tax is the expected tax payable or refundable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the end of the reporting period and any adjustment to tax payable in respect of previous years. The amount of current tax payable or receivable is the best estimate of tax amount expected to be paid or received that reflects uncertainty related to income taxes. The taxable income is different from the accounting profit for the period since the taxable profit is calculated excluding the temporary differences, which will be taxable or deductible in determining taxable profit (tax loss) of future periods, and non-taxable or non-deductible items from the accounting profit. The tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period.

(b) Deferred tax

Deferred tax is recognized, using the asset-liability method, in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

The Group recognizes a deferred tax liability for all taxable temporary differences associated with investments in subsidiaries, associates and interests in joint ventures except to the extent that the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. The Group recognizes deferred tax assets for all deductible temporary differences including unused tax loss and tax credit to the extent that it is probable that the temporary difference will reverse in the foreseeable future and taxable profit will be available against which the temporary difference can be utilized.

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

Deferred tax assets and liabilities are 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 (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

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

Deferred tax assets and liabilities are offset only if there is a legally enforceable right to offset the related current tax liabilities and assets, and they relate to income taxes levied by the same tax authority and they intend to settle current tax liabilities and assets on a net basis. If there are any additional income tax expense incurred in accordance with dividend payments, such income tax expense is recognized when liabilities relating to the dividend payments are recognized.

2. Significant Accounting Policies, Continued

2.29 Earnings per share

The Group presents basic and diluted earnings per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit or loss attributable to ordinary shareholders of the Parent Company by the weighted average number of ordinary shares outstanding during the period, adjusted for own shares held. Diluted EPS is determined by adjusting the profit or loss attributable to ordinary shareholders and the weighted average number of outstanding ordinary shares, adjusted for own shares held, for the effects of all dilutive potential ordinary shares including stock options.

2.30 Approval of the Consolidated Financial Statements

The consolidated financial statements were authorized for issuance by the board of directors on February 23, 2022, which will be submitted for approval at the shareholders' meeting to be held on March 30, 2022.

3. Critical Accounting Estimates and Assumptions

Preparation of financial statements requires assumptions and estimates of the future, and the management requires judgement to apply the Group's accounting policies. The estimates and assumptions are continuously assessed, considering historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

The spread of COVID-19 in 2021 is having a significant impact on the domestic and international economy. This can negatively affect productivity, revenue decline or delay, and the recovery of existing bonds, which can also negatively affect the Group's consolidated financial position and financial performance.

Critical accounting estimates and assumptions used in preparing consolidated financial statements can be adjusted according to changes in uncertainty caused by COVID-19, and the ultimate impact on the Group's business, financial position and business performance is currently unpredictable.

The following are estimates and assumptions about management decisions and significant risks that may affect the adjustment of the carrying amount of assets and liabilities in the following financial years: Additional information on significant judgements and estimates for some items is included in the separate footnotes.

(1) Fair value of financial instruments

In principle, the fair value of financial instruments that are not traded in an active market is determined using valuation techniques. The Group is making judgments on the selection and assumptions of various evaluation techniques based on important market conditions as of the end of the reporting period. (see footnote 6)

(2) Corporate tax

There is uncertainty in determining the final tax effect as corporate tax on the Group's taxable income is calculated by applying various national tax laws and tax authorities' decisions. The Group recognized the corporate tax effect, which is expected to be borne in the future as a result of business activities until the end of the reporting period, as current tax and deferred tax after the best estimation process. However, the actual future final corporate tax burden may not be consistent with the assets and liabilities recognized, and this difference may affect current and deferred tax assets and liabilities when the final tax effect is confirmed.

The Group will pay additional corporate taxes calculated by the method prescribed by the tax law when a certain amount of taxable income is not used for investment, salary increase, etc. for a certain period of time. Therefore, when measuring current and deferred taxes during the period, the tax effects should be reflected, and the corporate tax to be borne by the Group depends on the level of investment and salary growth in each year, so there is uncertainty in calculating the final tax effect.

In accordance with K-IFRS No.1012, the Group reviews uncertainty in its tax treatment and reflects the impact of uncertainty in its financial statements if the tax authorities conclude that uncertainty is unlikely to be accepted, using a method that expects better prediction of uncertainty:

(a) Most likely: the single most likely amount within the range of possible outcomes
(b) Expected value: the sum of all amounts in the range of possible outcomes multiplied by each probability;

3. Critical Accounting Estimates and Assumptions, Continued

(3) Provisions

The Group calculates provisions related to litigation costs and recovery costs as of the end of the reporting period, which are determined by estimates based on past experience (see footnote 20).

(4) Net defined benefit liabilities

The present value of the net defined benefit liability is affected by various factors determined by the actuarial method, especially changes in the discount rate (see footnote 21).

(5) Inventories

Estimating the net realizable value of inventories is based on the most reliable evidence available as of the estimated date for the amount feasible from inventories. In addition, if the Group confirms the circumstances in which an event exists at the end of the reporting period, it shall estimate the change in price or cost directly related to the event.

(6) Revenue recognition

The Group recognizes revenue from the sale of goods as a reduction in specific sales promotion activities from the consideration of the contract at the time of control transfer. Based on past experiences and contracts, the Group reasonably estimates sales losses, and the Group's revenue is affected by the estimated sales losses.

(7) Development cost

The recoverable amounts of development cost has been determined based on value-in-use calculations, and those calculations are based on estimates.

(8) Depreciation of property, plant, and equipment

The depreciation method, residual values and useful lives of property, plant and equipment and Intangible assets are reviewed, and adjusted if appropriate, at the end of each reporting period. If the resulting estimates differ from previous estimates, the difference is accounted for as a change in accounting estimates in accordance with K-IFRS 1008 ‘Accounting Policies, Changes in Accounting Estimates and Errors’.

(9) Goodwill

The recoverable amount of cash-generating units to review goodwill for impairment is determined on the basis of their net fair value.

3. Critical Accounting Estimates and Assumptions, Continued

(10) Lease
In determining the lease term, the Group considers all relevant facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

For warehouses and equipment leases, the most relevant factors are generally as follows:
- If a significant penalty is to be paid to terminate (not to extend), it is generally quite certain that the Group exercises the option to extend (not to extend).
- It is generally fairly certain that the Group exercises the option to extend (not exercise the option to terminate) if the lease is expected to have significant residual value.
- In other cases than the above, the Group will consider other factors, including the lease duration and costs, and the discontinuation required to replace the leased asset.

Most extension options in office and vehicle transport leases are not included in lease liabilities because the Group can replace the asset without significant cost or business interruption.
Reevaluate the lease term if the option is actually exercised (or not exercised) or the Group is liable to exercise (not exercised) the option. Only when significant events occur or there are significant changes in the circumstances that affect the lessee's control of the lease term, the Group changes its judgment to ensure that the option to extend (or will not be exercised) is significant.

4. Operating Segment Information

The Group has a single reportable segment that is engaged in the manufacture and sale of semiconductor products. Management of the Group reviews the operational results of the semiconductor business with the reporting information which is prepared in the same manner as management reviews during the establishment of the Group's business strategy.

(1) The Group's non-current assets (excluding long-term trade receivables, financial assets, loans and other receivables, investment in associates and joint ventures and deferred tax assets) information by region based on the location of the Parent Company and its subsidiaries as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		December 31, 2021		December 31, 2020
Korea	₩	40,474,770	₩	35,954,666
China		19,484,394		10,302,196
Asia (other than China)		17,065		20,397
U.S.A.		426,723		373,767
Europe		16,230		13,868
	₩	60,419,182	₩	46,664,894

(2) For the year ended December 31, 2021, revenue of ₩5,014,368 million, ₩4,581,712 million, over 10% of the Group's revenue, are derived from external customers A and B, respectively and for the year ended December 31, 2020, revenues of ₩3,510,469 million and ₩3,190,135 million and ₩3,655,937 million over 10% of the Group's revenue, are derived from external customer A, B and C, respectively.

5. Carrying Amounts of Financial Instruments by Categories

(1) Carrying amounts of financial assets by categories as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	December 31, 2021			
		Financial assets at fair value through profit or loss		Financial assets at fair value through other comprehensive income or loss
Cash and cash equivalents	₩	-	₩	-
Short-term financial instruments		222,500		-
Short-term investment assets		3,139,923		-
Trade receivables[1]		-		980,487
Loans and other receivables		-		-
Other financial assets		-		-
Long-term investment assets		6,665,513		-
	₩	10,027,936	₩	980,487

(In millions of Korean won)

	December 31, 2021					
		Financial assets at amortized cost		Other financial assets		Total
Cash and cash equivalents	₩	5,057,982	₩	-	₩	5,057,982
Short-term financial instruments		252,137		-		474,637
Short-term investment assets		-		-		3,139,923
Trade receivables[1]		7,286,624		-		8,267,111
Loans and other receivables		510,981		-		510,981
Other financial assets		30,076		61,093		91,169
Long-term investment assets		-		-		6,665,513
	₩	13,137,800	₩	61,093	₩	24,207,316

[1] The Group transferred certain portion of trade receivables, which are from specific customers, and derecognized the trade receivables from the financial statements as all the risks and rewards are substantially transferred. Accordingly, the Group recognized gain or loss on disposal of trade receivables.

5. Carrying Amounts of Financial Instruments by Categories

(1) Carrying amounts of financial assets by categories as of December 31, 2021 and 2020 are as follows, Continued:

(In millions of Korean won)

	December 31, 2020			
		Financial assets at fair value through profit or loss		Financial assets at fair value through other comprehensive income or loss
Cash and cash equivalents	₩	-	₩	-
Short-term financial instruments		227,500		-
Short-term investment assets		1,535,518		-
Trade receivables[1]		-		512,458
Loans and other receivables		-		-
Other financial assets		-		-
Long-term investment assets		6,139,627		-
	₩	7,902,645	₩	512,458

(In millions of Korean won)

	December 31, 2020			
		Financial assets at amortized cost		Total
Cash and cash equivalents	₩	2,975,989	₩	2,975,989
Short-term financial instruments		209,208		436,708
Short-term investment assets		-		1,535,518
Trade receivables[1]		4,418,864		4,931,322
Loans and other receivables		144,783		144,783
Other financial assets		383		383
Long-term investment assets		-		6,139,627
	₩	7,749,227	₩	16,164,330

[1] The Group transferred certain portion of trade receivables, which are from specific customers, and derecognized the trade receivables from the financial statements as all the risks and rewards are substantially transferred. Accordingly, the Group recognized gain or loss on disposal of trade receivables.

5. Carrying Amounts of Financial Instruments by Categories, Continued

(2) Carrying amounts of financial liabilities by categories as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	December 31, 2021		
	Financial liabilities at amortized cost	Other financial liabilities	Total
Trade payables	₩ 1,359,247	₩ -	₩ 1,359,247
Other payables	7,339,748	-	7,339,748
Other non-trade payables	2,310,749	-	2,310,749
Borrowings	17,623,809	-	17,623,809
Lease liabilities	1,525,762	-	1,525,762
Other financial liabilities	4,517	702	5,219
	₩ 30,163,832	₩ 702	₩ 30,164,534

(In millions of Korean won)

	December 31, 2020		
	Financial liabilities at amortized cost	Other financial liabilities	Total
Trade payables	₩ 1,046,159	₩ -	₩ 1,046,159
Other payables	2,621,305	-	2,621,305
Other non-trade payables	1,397,116	-	1,397,116
Borrowings	11,251,648	-	11,251,648
Lease liabilities	1,643,716	-	1,643,716
Other financial liabilities	3,958	84,707	88,665
	₩ 17,963,902	₩ 84,707	₩ 18,048,609

5. Categories of Financial Instruments, Continued

(3) Details of gain and loss on financial assets and liabilities by category for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Financial assets at amortized cost				
Interest income	W	22,419	W	27,872
Foreign exchange differences		811,250		(959,065)
Loss on disposal		(125)		-
Reversal of impairment		(839)		(550)
		832,705		(931,743)
Financial assets at fair value through profit or loss				
Dividend income		10,163		1,325
Gain on disposal		81,937		27,510
Gain on valuation		566,321		1,736,345
Foreign exchange differences		(50,074)		(40,222)
		608,347		1,724,958
Financial liabilities at amortized cost				
Interest expenses		(259,960)		(253,468)
Foreign exchange differences		(272,052)		809,001
		(532,012)		555,533
Financial liabilities at fair value through profit or loss				
Loss on financial liabilities		(1,716)		(1,681)
	W	907,324	W	1,347,067

6. Financial Risk Management

(1) Financial risk management

The Group's activities are exposed to a variety of financial risks: market risk (including foreign exchange risk, interest rate risk and price risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Group's financial performance.

Risk management is carried out by the Parent Company's corporate finance division in accordance with policies approved by the board of directors. The Parent Company's corporate finance division identifies, evaluates and hedges financial risks in close cooperation with the Group's operating units. The board of directors provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, and credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity

(a) Market risk

(i) Foreign exchange risk
The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the US dollar, Japanese yen, Chinese yuan and Euro. Foreign exchange risk arises from future commercial transactions; recognized assets and liabilities in foreign currencies; and net investments in foreign operations.

Monetary foreign currency assets and liabilities as of December 31, 2021 are as follows:

(In millions of Korean won and millions of foreign currencies)

	Assets		Liabilities	
	Foreign currencies	**Korean won equivalent**	**Foreign currencies**	**Korean won equivalent**
USD	13,819	₩ 16,381,874	17,186	₩ 20,373,896
JPY	1,034	10,650	51,731	532,949
CNY	270	50,212	1,179	219,610
EUR	8	11,392	186	249,734

Also, as described in note 23, the Group entered into a fixed-to-fixed cross currency swap and a floating-to-fixed cross currency interest rate swap to hedge foreign currency rate risk relating to bonds and borrowings denominated in foreign currencies

When the exchange rate of the functional currency for each foreign currency fluctuates by 10% as of December 31, 2021, the impact of the change in the exchange rate on profit before income tax expenses are as follows:

(In millions of Korean won)

	If increased by 10%	If decreased by 10%
USD	₩ (281,098)	₩ 281,098
JPY	(52,230)	52,230
CNY	(16,940)	16,940
EUR	(23,834)	23,834

6. Financial Risk Management, Continued

(1) Financial risk management, Continued

(a) Market risk, Continued

(ii) Interest rate risk
Interest rate risk of the Group is defined as the risk that the interest expenses arising from borrowings will fluctuate due to changes in future market interest rate. The interest rate risk mainly arises through floating rate borrowings, and is partially offset by interests received from floating rate financial assets.

The Group is managing cash flow interest rate risk using floating-to-fixed cross currency interest rate swaps. These interest rate swaps have an economic effect of converting floating interest borrowings into fixed interest borrowings. Generally, the Group borrows at a floating interest rate and then swaps at a fixed rate. Under the swap agreement, the Group will settle the difference between fixed interest costs and the floating interest costs calculated according to the principal agreed upon for each counterparty and specific period (mainly quarterly).

The Group is partially exposed to the risk of changing net interest costs due to changes in interest rates as of December 31, 2021. The Group has signed a currency interest rate swap contract on floating interest rate borrowings of W592,750 million and a interest rate swap contract on floating interest rate borrowings of ₩118,550 million. Therefore, the changes in interest costs subject to fluctuation of interest rates do not have an impact on the profit before income tax for the year ended December 31, 2021.

As of December 31, 2021, if interest rates on borrowings and financial assets had been 100 basis points higher/lower with all other variables held constant, profit before income tax would have been ₩78,278 million(2020: ₩50,270 million) lower/higher, mainly as a result of higher/lower interest expense on floating rate borrowings and net interest costs on floating rate financial assets.

(iii) Price risk
The Group invests in equity and debt securities resulted from its business needs and the purpose of liquidity management. The Group’s equity and debt securities are exposed to price risk as of December 31, 2021.

Equity investments that the Group owns are all unlisted equities and the effect of the equity investments on the Group's profit for the year and other comprehensive income are explained in note 12.

(b) Credit risk
Credit risk is the risk of financial loss to the Group if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises mainly from operating and investing activities. In order to manage credit risk, the Group periodically evaluates the credit worthiness of each customer or counterparty through the analysis of its financial information, historical transaction records and other factors, and establishes credit limits for each customer or counterparty.

6. Financial Risk Management, Continued

(1) Financial risk management, Continued

(b) Credit risk, Continued

(i) Trade and other receivables
For each new customer, the Group individually analyzes its credit worthiness before standard payment and delivery terms and conditions are offered. In addition, the Group is continuously managing trade and other receivables by reevaluating the customer's credit worthiness and securing collaterals in order to limit its credit risk exposure. The Group reviews at the end of each reporting period whether trade and other receivables are impaired and maintains credit insurance policies to manage credit risk exposure from oversea customers. The maximum exposure to credit risk as of December 31, 2021 is the carrying amount of trade and other receivables

(ii) Other financial assets
Credit risk also arises from other financial assets such as cash and cash equivalents, short-term financial instruments, long-term and short-term investment assets, and short-term and long-term loans mainly due to the bankruptcy of each counterparty to those financial assets. The maximum exposure to credit risk as of December 31, 2021 is the carrying amount of those financial assets. The Group transacts only with banks and financial institutions with high credit ratings, and accordingly management does not expect any significant loss from non-performance by the counterparties.

(c) Liquidity risk
Liquidity risk is defined as the risk that the Group is unable to meet its short-term payment obligations on time due to deterioration of its business performance or inability to access financing. The Group forecasts its cash flow and liquidity status and sets action plans on a regular basis to manage liquidity risk proactively.

The Group invests surplus cash in interest-bearing current accounts, time deposits, and demand deposits choosing instruments with appropriate maturities or sufficient liquidity to provide sufficient head-room as determined by the above-mentioned forecasts.

6. Financial Risk Management, Continued

(1) Financial risk management, Continued

(c) Liquidity risk, Continued

The contractual maturity of financial liabilities held by the Group as of December 31, 2021 and 2020 term are as follows:

(In millions of Korean won)

		December 31, 2021				
		Less than 1 year	1 - 2 years	2 - 5 years	More than 5 years	Total
Borrowings[1]	₩	3,181,897	3,351,918	8,824,353	3,461,705	18,819,873
Lease liabilities		323,145	219,289	474,595	604,977	1,622,006
Trade payables		1,359,247	-	-	-	1,359,247
Other payables		4,642,258	64,699	2,748,978	28,452	7,484,387
Other non-trade payables		2,230,267	9,021	15,079	8,332	2,262,699
Derivative Liabilities		837	64	-	-	901
Other financial liabilities		129,710	-	-	-	129,710
	₩	11,867,361	3,644,991	12,063,005	4,103,466	31,678,823

[1] The cash flow includes payment of interest under terms and conditions of borrowing.

(In millions of Korean won)

		December 31, 2020				
		Less than 1 year	1 - 2 years	2 - 5 years	More than 5 years	Total
Borrowings[1]	₩	3,309,009	2,317,331	5,136,314	1,121,480	11,884,134
Lease liabilities		352,201	250,840	391,356	848,315	1,842,712
Trade payables		1,046,159	-	-	-	1,046,159
Other payables		2,348,909	56,902	160,488	78,336	2,644,635
Other non-trade payables		1,346,254	17,896	12,028	-	1,376,178
Derivative Liabilities		(3,538)	(3,839)	77,573	13,460	83,656
Other financial liabilities		117,106	-	-	-	117,106
Financial guarantee contract		87,040	-	-	-	87,040
	₩	8,603,140	2,639,130	5,777,759	2,061,591	19,081,620

[1] The cash flow includes payment of interest under terms and conditions of borrowing.

The table above analyzes the Group's financial liabilities into relevant maturity groups based on the remaining period at the statement of financial position date to the contractual maturity date. The amounts disclosed in the table are the contractual undiscounted cash flows and include estimated interest payments.

6. Financial Risk Management, Continued

(2) Capital management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends to shareholders and proceeds and repayments of borrowings, and issue new shares or sell assets to reduce debt.

The debt-to-equity ratio and net borrowing ratio as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)		**December 31, 2021**		**December 31, 2020**
Total liabilities (A)	₩	34,195,416	₩	19,264,756
Total equity (B)		62,191,058		51,909,097
Cash and cash equivalents, and others[1] (C)		8,672,542		4,948,215
Total borrowings (D)		17,623,809		11,251,648
Debt-to-equity ratio (A/B)		54.98%		37.11%
Net borrowing ratio (D-C)/B		14.39%		12.14%

[1] Total amount of cash and cash equivalents, short-term investment assets and short-term financial instruments. Under major loan contracts, the Group must comply with a certain level of debt ratio, and the Group has complied with these conditions at the end of December 31, 2021.

(3) Fair value

Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in valuation techniques as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities that an entity can access at the measurement date.
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices)
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs)

6. Financial Risk Management, Continued

(3) Fair value, Continued

(a) The following table presents the carrying amounts and fair values of financial instruments by categories, including their levels in the fair value hierarchy, as of December 31, 2021 and 2020:

(In millions of Korean won)

	Carrying amounts	December 31, 2021			
		Level 1	Level 2	Level 3	Total
Financial assets measured at fair value					
Short-term financial instruments	₩ 222,500	₩ -	₩ -	₩ 222,500	₩ 222,500
Short-term investment assets	3,139,923	-	3,139,923	-	3,139,923
Trade receivables[1]	980,487	-	980,487	-	980,487
Long-term investment assets	6,665,513		-	6,665,513	6,665,513
Other financial assets	61,093	-	61,093	-	61,093
	11,069,516	-	4,181,503	6,888,013	11,069,516
Financial assets not measured at fair value					
Cash and cash equivalents[2]	5,057,982	-	-	-	-
Short-term financial instruments[2]	252,137	-	-	-	-
Trade receivables[2]	7,286,624	-	-	-	-
Loans and other receivables[2]	510,981	-	-	-	-
Other financial assets[2]	30,076	-	-	-	-
	13,137,800	-	-	-	-
Total financial asset	₩ 24,207,316	₩ -	₩ 4,181,503	₩ 6,888,013	₩ 11,069,516
Financial liabilities measured at fair value					
Other financial liabilities	₩ 702	₩ -	₩ 702	₩ -	₩ 702
Financial liabilities not measured at fair value					
Trade payables[2]	1,359,247	-	-	-	-
Other payables[2]	7,339,748	-	-	-	-
Other non-trade payables[2]	2,310,749	-	-	-	-
Borrowings	17,623,809	-	17,491,195	-	17,491,195
Lease liabilities[2]	1,525,762	-	-	-	-
Other financial liabilities[2]	4,517	-	-	-	-
	30,163,832	-	17,491,195	-	17,491,195
Total financial liabilities	₩ 30,164,534	₩ -	₩ 17,491,897	₩ -	₩ 17,491,897

[1] The Group transferred some of the trade receivables and majority of the risks and rewards to the customer. Accordingly, the Group derecognized trade receivables from the financial statement on the date of assets transfer and recognized gain or loss on disposal of trade receivables.
[2] The Group did not include fair values of financial assets and liabilities of which carrying amounts are considered to be a reasonable approximation of fair values.

6. Financial Risk Management, Continued

(3) Fair value, Continued

(a) The following table presents the carrying amounts and fair values of financial instruments by categories, including their levels in the fair value hierarchy, as of December 31, 2021 and 2020, Continued:

(In millions of Korean won)

		Carrying amounts		Level 1		Level 2		Level 3		Total
				December 31, 2020						
Financial assets measured at fair value										
Short-term financial instruments	₩	227,500	₩	-	₩	-	₩	227,500	₩	227,500
Short-term investment assets		1,535,518		-		1,535,518		-		1,535,518
Trade receivables[1]		512,458		-		512,458		-		512,458
Long-term investment assets		6,139,627		-		-		6,139,627		6,139,627
		8,415,103		-		2,047,976		6,367,127		8,415,103
Financial assets not measured at fair value										
Cash and cash equivalents[2]		2,975,989		-		-		-		-
Short-term financial instruments[2]		209,208		-		-		-		-
Trade receivables[2]		4,418,864		-		-		-		-
Loans and other receivables[2]		144,783		-		-		-		-
Other financial assets[2]		383		-		-		-		-
		7,749,227		-		-		-		-
Total financial asset	₩	16,164,330	₩	-	₩	2,047,976	₩	6,367,127	₩	8,415,103
Financial liabilities measured at fair value										
Other financial liabilities	₩	84,707	₩	-	₩	84,707	₩	-	₩	84,707
Financial liabilities not measured at fair value										
Trade payables[2]		1,046,159		-		-		-		-
Other payables[2]		2,621,305		-		-		-		-
Other non-trade payables[2]		1,397,116		-		-		-		-
Borrowings		11,251,648		-		11,372,509		-		11,372,509
Lease liabilities[2]		1,643,716		-		-		-		-
Other financial liabilities[2]		3,958		-		-		-		-
		17,963,902		-		11,372,509		-		11,372,509
Total financial liabilities	₩	18,048,609	₩	-	₩	11,457,216	₩	-	₩	11,457,216

[1] The Group transferred some of the trade receivables and majority of the risks and rewards to the customer. Accordingly, the Group derecognized trade receivables from the financial statement on the date of assets transfer and recognized gain or loss on disposal of trade receivables.
[2] The Group did not include fair values of financial assets and liabilities of which carrying amounts are considered to be a reasonable approximation of fair values.

6. Financial Risk Management, Continued

(3) Fair value, Continued

(b) The valuation techniques

The valuation techniques of recurring and non-recurring fair value measurements and quoted prices classified as level 2 or level 3 are as follows:

(In millions of Korean won)

		Fair value	Level	Valuation Techniques
Financial assets at fair value through profit or loss:				
Short-term financial instruments	₩	222,500	3	Present value technique
Short-term investment assets		3,139,923	2	Present value technique
Long-term investment assets		6,665,513	3	Present value technique and others
Other financial assets		61,093	2	Present value technique
Financial assets at fair value through other comprehensive income:				
Trade receivables	₩	980,487	2	Present value technique
Financial liabilities at fair value through other comprehensive income:				
Other financial liabilities	₩	702	2	Present value technique

Long-term investments measured at level 3 in the fair value hierarchy include investments in special purpose companies of BCPE Pangea Intermediate Holdings Cayman, L.P. ("SPC1") amounting to ₩3,828,182 million and BCPE Pangea Cayman2 Limited ("SPC2") amounting to ₩2,519,355 million in connection with the Group’s investments in acquisition of KIOXIA Holdings Corporation ("KIOXIA", formerly Toshiba Memory Corporation) (see note 12). The fair value of the long-term investments is measured based on the equity value of the underlying asset, KIOXIA estimated utilizing present value discount model.

The fair value of equity investment in SPC1 is measured using an option pricing model allocating the estimated fair value of KIOXIA equity between investors based on distribution priority pursuant to the underlying investment arrangement together with consideration of expected KIOXIA initial public offering and SPC1 liquidation.

The fair value of debt investment in SPC2 convertible bonds is measured based on the estimated KIOXIA's equity value and SPC2’ equity ownership in KIOXIA (15.0%).

6. Financial Risk Management, Continued

(3) Fair value, Continued

(b) Valuation Techniques, Continued

The valuation techniques and key inputs used in valuation of the equity investment in SPC1 and investment in SPC2 convertible bonds are as follows:

(In millions of Korean won)

		Fair value	Valuation Techniques	Level 3 inputs	Input Range
Equity investment in SPC1	₩	3,828,182	Present value technique, and option-pricing method	Terminal growth rate	0%
				Weighted-average capital cost	7.10%
				Expected expiration(years)	2.41
				Volatility	41.9%
				Risk free rate	-0.10%
SPC2 convertible bonds		2,519,355	Present value technique	Terminal growth rate	0%
				Weighted-average capital cost	7.10%

In these level 3 significant unobservable inputs, the higher in terminal growth rate or the lower in weighted-average capital cost will result the higher fair value of the equity investment in SPC1, while any change in volatility and risk free rate may have either positive or negative impact on the fair value of the investment in SPC1. In addition, the higher in terminal growth rate and the lower in weighted-average capital cost will result in the higher fair value of the investment in SPC2 convertible bonds.

Any positive or negative changes in the above inputs will have a significant and direct impact on the fair value of investments in SPC1 and SPC2, respectively. They are significant, but unobservable. Accordingly, the investments are classified as fair value hierarchy level 3 and the above inputs may have a significant impact on the value of investments in SPC1 and SPC2.

The sensitivity analysis results for the effect of changes in each long-term investment input classified as Level 3 under sensitivity analysis on fair value are as follows:

(In millions of Korean won)

		Positive flucutaion		Negative fluctuation
Equity investment in SPC1[1]	₩	962,956	₩	(767,497)
SPC2 convertible bonds[1]		640,892		(484,655)

[1] Fair value fluctuations were calculated by increasing or decreasing the terminal growth rate and weighted average capital cost, which are major unobservable input variables, by 0.5%.

6. Financial Risk Management, Continued

(3) Fair value, Continued

(c) There was no transfer between fair value hierarchy levels during the year ended December 31, 2021 and the changes in financial assets and financial liabilities classified as level 3 fair value measurements during the year ended December 31, 2021 are as follows:

(In millions of Korean won)

		Short-term financial instrements		Long-term investment assets
Beginning balance	₩	227,500	₩	6,139,627
Acquisition		-		131,634
Disposal		(5,000)		(12,631)
Payments		-		-
Valuation		-		524,409
Foreign exchange difference		-		(117,526)
Ending balance	₩	222,500	₩	6,665,513

7. Restricted Financial Instruments

Details of restricted financial instruments as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		December 31, 2021		December 31, 2020	Description
Short-term financial instruments	₩	222,500	₩	227,500	Restricted for supporting small businesses
		8,242		8,434	Pledged for consumption tax
		90,220		84,419	Guarantee deposits for repayments of borrowings
		320,962		320,353	
Other financial assets		28,790		-	Down Payment, Bank Balance for the share sale contract
		11		11	Bank overdraft guarantee deposit
		1,245		305	Others
		30,046		316	
	₩	351,008	₩	320,669	

8. Trade Receivables and Loans and Other Receivables

(1) Details of trade receivables as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		December 31, 2021		December 31, 2020
Trade receivables	₩	8,115,796	₩	4,873,602
Trade receivables to be collected from related parties		151,315		57,720
	₩	8,267,111	₩	4,931,322

(2) Details of loans and other receivables as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		December 31, 2021		December 31, 2020
Current				
Other receivables	₩	118,120	₩	13,603
Accrued income		2,252		2,570
Short-term loans		11,104		5,045
Short-term guarantee and other deposits		39,988		47,976
		171,464		69,194
Non-current				
Long-term other receivables		3		2,977
Long-term loans		292,300		37,838
Guarantee deposits		46,984		34,558
Others		230		216
		339,517		75,589
	₩	510,981	₩	144,783

8. Trade Receivables and Loans and Other Receivables, Continued

(3) Trade receivables and loans and other receivables, net of provision for impairment, as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	December 31, 2021					
		Gross amount		Provision for impairment		Carrying amount
Trade receivables	₩	8,268,072	₩	(961)	₩	8,267,111
Current loans and other receivables		172,739		(1,275)		171,464
Non-current loans and other receivables		340,647		(1,130)		339,517
	₩	8,781,458	₩	(3,366)	₩	8,778,092

(In millions of Korean won)

	December 31, 2020					
		Gross amount		Provision for impairment		Carrying amount
Trade receivables	₩	4,931,366	₩	(44)	₩	4,931,322
Current loans and other receivables		70,472		(1,278)		69,194
Non-current loans and other receivables		76,743		(1,154)		75,589
	₩	5,078,581	₩	(2,476)	₩	5,076,105

8. Trade Receivables and Loans and Other Receivables, Continued

(4) Details of provision for impairment

Changes in the provision for impairment of trade receivables for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Beginning balance	₩	44	₩	9
Bad debt expense		912		555
Write-off		-		(517)
Foreign exchange difference		5		(3)
Ending balance	₩	961	₩	44

Changes in the provision for impairment of current loans and other receivables for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Beginning balance	₩	1,278	₩	1,280
Reversal		(3)		(2)
Ending balance	₩	1,275	₩	1,278

Movements in the provision for impairment of non-current loans and other receivables for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Beginning balance	₩	1,154	₩	1,162
Reversal		(114)		(3)
Write-off		-		64
Foreign exchange difference		90		(69)
Ending balance	₩	1,130	₩	1,154

8. Trade Receivables and Loans and Other Receivables, Continued

(5) The aging analysis of trade receivables and loans and other receivables as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		December 31, 2021					
		Not impaired					
			Overdue				
		Not past due	Less than 3 months	Over 3 months and less than 6 months	Over 6 months	Impaired	Total
Trade receivables	₩	8,267,111	-	-	-	961	8,268,072
Current loans and other receivables		171,464	-	-	-	1,275	172,739
Non-current loans and other receivables		339,517	-	-	-	1,130	340,647
	₩	8,778,092	-	-	-	3,366	8,781,458

(In millions of Korean won)

		December 31, 2020					
		Not impaired					
			Overdue				
		Not past due	Less than 3 months	Over 3 months and less than 6 months	Over 6 months	Impaired	Total
Trade receivables	₩	4,931,328	-	-	-	38	4,931,366
Current loans and other receivables		69,194	-	-	-	1,278	70,472
Non-current loans and other receivables		75,589	-	-	-	1,154	76,743
	₩	5,076,111	-	-	-	2,470	5,078,581

9. Inventories

(1) Details of inventories as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	December 31, 2021		
	Acquisition cost	Inventory valuation allowance	Carrying amount
Merchandise	₩ 2,650	₩ (48)	₩ 2,602
Finished goods	1,357,610	(113,566)	1,244,044
Work-in-process	5,910,133	(104,981)	5,805,152
Raw materials	1,074,600	(34,393)	1,040,207
Supplies	771,626	(56,324)	715,302
Goods in transit	109,298	-	109,298
	₩ 9,225,917	₩ (309,312)	₩ 8,916,605

(In millions of Korean won)

	December 31, 2020		
	Acquisition cost	Inventory valuation allowance	Carrying amount
Merchandise	₩ 2,197	₩ (24)	₩ 2,173
Finished goods	1,293,801	(214,834)	1,078,967
Work-in-process	3,724,374	(139,419)	3,584,955
Raw materials	759,818	(35,336)	724,482
Supplies	619,382	(31,373)	588,009
Goods in transit	157,732	-	157,732
	₩ 6,557,304	₩ (420,986)	₩ 6,136,318

(2) The amount of the inventories recognized as cost of sales and loss on valuation allowance of inventories charged to cost of sales are as follows:

(In millions of Korean won)

	2021	2020
Inventories recognized as cost of sales	₩ 24,151,572	21,313,696
Gain from reversal of valuation allowance of inventories	(111,674)	(226,512)

10. Other Current and Non-current Assets

Details of other current and non-current assets as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		December 31, 2021		December 31, 2020
Current				
Advance payments	₩	69,010	₩	51,047
Prepaid expenses		177,125		145,298
Value added tax refundable		534,958		235,602
Contract assets		56,700		53,605
Others		793		120
		838,586		485,672
Non-current				
Long-term advance payments		68,347		36,985
Long-term prepaid expenses		54,451		14,961
Others		6,479		3,083
		129,277		55,029
	₩	967,863	₩	540,701

11. Investments in Associates and Joint Ventures

(1) General information of investments in associates and joint ventures is as follows:

Type	Investee	Location	Business
Associate	Stratio, Inc[1].	U.S.A	Development and manufacture of semiconductor parts
	SK China Company Limited[2]	China	Consulting and investment
	Gemini Partners Pte. Ltd.	Singapore	Consulting
	TCL Fund[1]	China	Investment
	SK South East Asia Investment Pte. Ltd.	Singapore	Consulting and investment
	Hushan Xinju (Chengdu) Venture Investment Center(Smartsource)[2]	China	Venture Capital
	Prume Social Farm, Co., Ltd.	Korea	Growing crops
	Wuxi xinfa IC industry park., Ltd·	China	Developing Science-Technological Park
	Magnus Private Investment Co.,Ltd	Korea	Investment
	L&S (No.10) Early Stage Ⅲ Investment Association	Korea	Investment
	SiFive Inc.[1]	U.S.A	Design and manufacture of semiconductor
	YD-SK-KDB Scocial Value	Korea	Investment
	Ningbo Zhongxin Venture Capital Partnership (Limited Partnership) [1,3]	China	Investment
	Jiangsu KVTS Semiconductor science and Technology Co Ltd.[3]	China	Manufacturing semiconductor parts
	Mirae Asset Committee Semiconductor No. 1 Startup Venture Private Equity Investment Co., Ltd.[3]	Korea	Investment
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd[4].	China	Manufacture of semiconductor parts
	Hystars Semiconductor (Wuxi) Co., Ltd[4].	China	Foundry factory construction
	Specialized Investment-type Private Equity Investment Trust For Growth Of Semiconductor[4]	Korea	Investment
	Specialized Investment-type Private Equity Investment Trust For Win-win System Semiconductor[4]	Korea	Investment

11. Investments in Associates and Joint Ventures, Continued

(2) Details of investments in associates and joint ventures as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)	December 31, 2021			December 31, 2020	
Investee	**Ownership (%)**	**Net asset value**	**Carrying amount**	**Ownership (%)**	**Carrying amount**
Associate:					
Stratio, Inc[1].	9.35	₩ 94	₩ 397	9.12	₩ 407
SK China Company Limited[2]	11.87	291,389	343,987	11.87	257,474
Gemini Partners Pte. Ltd.	20	2,236	2,236	20.00	1,771
TCL Fund[1]	11.05	12,895	13,328	11.05	11,538
SK South East Asia Investment Pte. Ltd.	20	347,317	347,317	20.00	325,006
Hushan Xinju (Chengdu) Venture Investment Center(Smartsource)[2]	16.67	9,747	9,747	16.67	7,970
Prume Social Farm, Co., Ltd.	35.52	2,188	2,752	35.52	2,221
Wuxi xinfa IC industry park., Ltd	30	33,289	33,288	30.00	20,952
Magnus Private Investment Co.,Ltd	49.76	183,760	183,760	49.76	150,840
L&S (No.10) Early Stage Ⅲ Investment Association	24.39	3,980	3,980	24.39	2,609
SiFive Inc.[1]	7.55	17,366	43,499	7.87	34,372
YD-SK-KDB Scocial Value	23.26	7,180	7,180	23.26	2,566
Ningbo Zhongxin Venture Capital Partnership (Limited Partnership)[1,3]	7.32	3,624	3,625	-	-
Jiangsu KVTS Semiconductor science and Technology Co Ltd.[3]	33	4,576	7,369	-	-
Mirae Asset Committee Semiconductor No. 1 Startup Venture Private Equity Investment Co., Ltd.[3]	29.97	3,000	3,000	-	-
Joint venture:					
HITECH Semiconductor (Wuxi) Co., Ltd.[4]	45	126,559	123,864	45.00	113,430
Hystars Semiconductor (Wuxi) Co., Ltd.[4]	50.10	225,183	226,773	50.10	195,423
Specialized Investment-type Private Equity Investment Trust For Growth Of Semiconductor[4]	33.33	24,602	24,603	33.33	24,818
Specialized Investment-type Private Equity Investment Trust For Win-win System Semiconductor[4]	37.50	29,724	29,723	37.50	14,847
		₩ 1,328,709	₩ 1,410,428		₩ 1,166,244

[1] The Group is able to exercise significant influence through its right to appoint a director to the Board of Directors of each investee. Accordingly, the investments in these investees have been classified as associates.
[2] Management of the Group is able to exercise significant influence over the entity by participating Board of Directors. Accordingly, the investments in these investees have been classified as associates.
[3] Additional aquistion during the year ended December 31, 2021.
[4] The relevant contract stipulates that important matters have to be resolved unanimously. Accordingly, the Group has classified them as joint ventures.

11. Investments in Associates and Joint Ventures, Continued

(3) Changes in investments in associates and joint ventures for years ended December 31, 2021 and 2020 are as follows :

(In millions of Korean won)

	2021					
	Beginning balance	Acquisition	Share of profit (loss)	Other equity movement	Dividend	Ending balance
Stratio, Inc.	₩ 407	₩ -	₩ (19)	₩ 9	₩ -	₩ 397
SK China Company Limited	257,474	-	110,952	32,211	(56,650)	343,987
Gemini Partners Pte. Ltd.	1,771	-	331	134	-	2,236
TCL Fund	11,538	679	889	1,352	(1,130)	13,328
SK South East Asia Investment Pte. Ltd.	325,006	-	(18,195)	40,506	-	347,317
Hushan Xinju (Chengdu) Venture Investment Center (Smartsource)	7,970	-	815	962	-	9,747
Prume Social Farm, Co., Ltd.	2,221	-	531	-	-	2,752
Wuxi xinfa IC industry park., Ltd.	20,952	9,603	(136)	2,869	-	33,288
Magnus Private Investment Co., Ltd.	150,840	-	32,920	-	-	183,760
L&S (No.10) Early Stage Ⅲ Investment Association	2,609	1,500	(129)	-	-	3,980
SiFive Inc.	34,372	-	8,532	595	-	43,499
YD-SK-KDB Scocial Value	2,566	4,800	(186)	-	-	7,180
Ningbo Zhongxin Venture Capital Partnership (Limited Partnership)	-	3,448	(67)	244	-	3,625
Jiangsu KVTS Semiconductor science and Technology Co Ltd.	-	6,832	316	221	-	7,369
HITECH Semiconductor (Wuxi) Co., Ltd.	113,430	-	17,545	9,660	(16,771)	123,864
Hystars Semiconductor (Wuxi) Co., Ltd.	195,423	-	8,520	22,830	-	226,773
Specialized Investment-type Private Equity Investment Trust For Growth Of Semiconductor	24,818	-	(215)	-	-	24,603
Specialized Investment-type Private Equity Investment Trust For Win-win System Semiconductor	14,847	15,000	(124)	-	-	29,723
Mirae Asset Committee Semiconductor No. 1 Startup Venture Private Equity Investment Co., Ltd.	-	3,000	-	-	-	3,000
	₩ 1,166,244	₩ 44,862	₩ 162,280	₩ 111,593	₩ (74,551)	₩ 1,410,428

11. Investments in Associates and Joint Ventures, Continued

(3) Changes in investments in associates and joint ventures for the years ended December 31, 2021 and 2020 are as follows, Continued:

(In millions of Korean won)

	2020						
	Beginning balance	Acquisition	Transfer	Share of profit (loss)	Other equity movement	Dividend	Ending balance
Stratio, Inc.	₩ 395	₩ -	₩ -	₩ 19	₩ (7)	₩ -	₩ 407
SK China Company Limited	259,272	-	-	5,746	(7,544)	-	257,474
Gemini Partners Pte. Ltd.	2,735	-	-	(872)	(92)	-	1,771
TCL Fund	4,995	5,280	-	999	264	-	11,538
SK South East Asia Investment Pte. Ltd.	237,599	121,450	-	10,889	(44,932)	-	325,006
Hushan Xinju (Chengdu) Venture Investment Center (Smartsource)	5,659	2,565	-	(233)	(14)	(7)	7,970
Prume Social Farm, Co., Ltd.	1,000	1,000	-	221	-	-	2,221
Wuxi xinfa IC industry park., Ltd.	-	21,860	-	(86)	(822)	-	20,952
Magnus Private Investment Co., Ltd.	-	207,346	-	(56,506)	-	-	150,840
L&S (No.10) Early Stage Ⅲ Investment Association	-	2,250	500	(141)	-	-	2,609
SiFive Inc.	-	35,709	-	(880)	(457)	-	34,372
YD-SK-KDB Scocial Value	-	1,400	1,400	(234)	-	-	2,566
HITECH Semiconductor (Wuxi) Co., Ltd.	114,518	-	-	21,241	(7,296)	(15,033)	113,430
Hystars Semiconductor (Wuxi) Co., Ltd.	142,594	69,377	-	(16,627)	79	-	195,423
Specialized Investment-type Private Equity Investment Trust For Growth Of Semiconductor	-	-	24,480	338	-	-	24,818
Specialized Investment-type Private Equity Investment Trust For Win-win System Semiconductor	-	15,000	-	(153)	-	-	14,847
	₩ 768,767	₩ 483,237	₩ 26,380	₩ (36,279)	₩ (60,821)	₩ (15,040)	₩ 1,166,244

11. Investments in Associates and Joint Ventures, Continued

(4) Associates and joint ventures' summarized statements of financial position as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	December 31, 2021							
		Current assets		Non-current assets		Current liabilities		Non-current liabilities
SK China Company Limited	₩	982,428	₩	1,841,336	₩	52,979	₩	314,823
SK South East Asia Investment Pte. Ltd.		132,551		2,841,200		411,228		-
Magnus Private Investment Co., Ltd.		241,256		514,986		132,763		439,719
HITECH Semiconductor (Wuxi) Co., Ltd.		279,304		357,074		129,193		225,942
Hystars Semiconductor (Wuxi) Co., Ltd.		176,141		580,937		20,139		287,473

(In millions of Korean won)

	December 31, 2020							
		Current assets		Non-current assets		Current liabilities		Non-current liabilities
SK China Company Limited	₩	380,413	₩	1,706,634	₩	51,485	₩	308,147
SK South East Asia Investment Pte. Ltd.		797,045		1,672,412		67		-
Magnus Private Investment Co., Ltd.		175,007		522,600		85,754		461,012
HITECH Semiconductor (Wuxi) Co., Ltd.		208,103		380,648		129,135		203,246
Hystars Semiconductor (Wuxi) Co., Ltd.		89,629		555,551		31,557		226,732

11. Investments in Associates and Joint Ventures, Continued

(5) Associates and joint ventures' summarized statements of comprehensive income (loss) for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	2021		2020	
	Revenue	Profit (loss) for the year	Revenue	Profit (loss) for the year
SK China Company Limited	₩ 80,178	₩ 935,034	₩ 154,355	₩ 48,427
SK South East Asia Investment Pte. Ltd.	9,937	(90,977)	9,467	54,448
Magnus Private Investment Co., Ltd.	615,954	32,920	164,662	(56,505)
HITECH Semiconductor (Wuxi) Co., Ltd.	636,882	40,309	622,653	51,871
Hystars Semiconductor (Wuxi) Co., Ltd.	72,220	17,005	-	(33,188)

12. Long-term Investment Assets

(1) Details of long-term investment assets as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	December 31, 2021			December 31, 2020
	Ownership (%)/ Type	Acquisition cost	Book value	Book value
ProMOS Technologies Inc.	Equity securities	₩ 21,847	₩ -	₩ -
Intellectual Discovery	Equity securities	4,000	2,005	2,182
China Walden Venture Investments II, L.P.	Certificate	8,457	12,671	10,965
China Walden Venture Investments III, L.P.	Certificate	7,531	10,561	7,085
BCPE Pangea Intermediate Holdings Cayman, L.P. [1]	Certificate	2,765,924	3,828,182	3,595,494
BCPE Pangea Cayman2, Ltd. [1]	Convertible bond	1,283,095	2,519,355	2,351,225
FemtoMetrix, Inc.	Equity securities	4,387	4,742	4,387
GigaIO Networks, Inc.	Equity securities	4,066	3,242	3,103
Shanghai IoT Phase II Venture Capital Fund Partnership, L.P	Certificate	6,812	17,961	13,262
Beijing Horizon Robotics Technology Co., Ltd.	Equity securities	55,091	61,577	56,190
Shanghi Sitrus Microelectronics Technology Co., Ltd.	Equity securities	5,254	3,172	1,314
Jiangsu Jiequan Junhai Rongxin Investment Partnership	Certificate	52,443	54,161	20,035
Impact Venture Capital I, L.P.	Certificate	5,085	8,082	5,881
AutoTech Fund I, L.P.	Certificate	4,294	4,875	3,840
TransLink Capital Partners IV, L.P.	Certificate	4,357	4,683	3,563
NuVolta Technologies (Hefei) Co., Ltd.	Equity securities	12,420	12,327	-
Global Power Technology (Beijing) Co., Ltd.	Certificate	12,420	13,038	-
Chipone Technology (Beijing) Co., Ltd.	Certificate	14,194	14,901	-
Hubei Sinophorus Electronic MATERIALS Co., Ltd.	Certificate	8,517	8,940	-
Others	-	76,680	81,038	61,101
		₩ 4,356,874	₩ 6,665,513	₩ 6,139,627

[1] In 2017, the Group participated in a consortium that includes Bain Capital in connection with acquisition of a stake in Toshiba Memory Corporation ("TMC"). On March 1, 2019 Toshiba Memory Holdings Corporation ("TMCHD") was established as the holding company for TMC. Subsequently TMCHD and TMC were renamed KIOXIA Holdings Corporation ("KIOXIA") and KIOXIA Corporation, respectively. As of December 31, 2021, the Group holds equity interests in SPC1, which holds equity interests in KIOXIA, and convertible bonds issued by SPC2, which may be later convertible to 15% stake in KIOXIA. Management and decision-making rights of the Group for SPC1 and SPC2 are limited. Accordingly, the Group does not control or have any significant influence on SPC1 and SPC2. The investments in SPC1 and SPC2 are classified as financial assets which are debt instruments measured at fair value through profit or loss.

12. Long-term Investment Assets, Continued

(2) Changes in the carrying amount of long-term investment assets for the years ended December 30, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Beginning balance	₩	6,139,627	₩	4,381,812
Acquisition		131,634		95,332
Disposal		(12,631)		(706)
Gain on valuation		524,409		1,733,783
Foreign exchange difference		(117,526)		(44,214)
Transfer[1]		-		(26,380)
Ending balance	₩	6,665,513	₩	6,139,627

[1] Certain long-term invenstment assets were transferred to associates and joint venture.

13. Property, Plant and Equipment

(1) Changes in property, plant and equipment for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

				2021					
		Land	Buildings	Structures	Machinery	Vehicles	Others	Construction -in-progress	Total
Beginning balance	₩	971,606	7,018,249	1,812,107	26,491,042	40,557	724,825	4,172,176	₩ 41,230,562
Changes during 2021									
Acquisitions		22,031	223,588	283,158	8,558,128	249	208,926	4,073,975	13,370,055
Business combination		-	1,410,039	30,378	5,044,352	-	5,136	362,935	6,852,840
Disposals		(55)	(2,005)	(26)	(11,137)	-	(103)	(6,250)	(19,576)
Depreciation		-	(291,053)	(131,213)	(8,822,372)	(3,349)	(288,709)	-	(9,536,696)
Transfers[1]		147,905	110,006	36,117	1,815,099	-	75,229	(2,144,401)	39,955
Exchange differences and others		4,070	98,897	66,449	866,594	36	16,490	44,594	1,097,130
Ending balance		1,145,557	8,567,721	2,096,970	33,941,706	37,493	741,794	6,503,029	53,034,270
Acquisition cost		1,145,557	10,364,089	2,933,606	90,191,998	49,126	2,323,722	6,503,029	113,511,127
Accumulated depreciation		-	(1,756,215)	(817,532)	(56,080,096)	(11,627)	(1,581,899)	-	(60,247,369)
Accumulated impairment		-	(23,699)	(19,104)	(162,535)	-	(23)	-	(205,361)
Government grants		-	(16,454)	-	(7,661)	(6)	(6)	-	(24,127)
	₩	1,145,557	8,567,721	2,096,970	33,941,706	37,493	741,794	6,503,029	₩ 53,034,270

[1] Included transfers between investment property and property, plant and equipment during the year ended December 31, 2021.

13. Property, Plant and Equipment, Continued

(1) Changes in property, plant and equipment for the years ended December 31, 2021 and 2020 are as follows, Continued:

(In millions of Korean won)

	2020								
		Land	Buildings	Structures	Machinery	Vehicles	Others	Construction -in-progress	Total
Beginning balance	₩	1,041,771	5,547,744	1,619,064	26,974,270	43,096	764,043	3,959,952 ₩	39,949,940
Changes during 2020									
Acquisitions		38,075	476,831	284,113	6,044,813	55	192,353	3,012,558	10,048,798
Disposals		(9,231)	(327)	(73)	(17,095)	-	(884)	(37,850)	(65,460)
Depreciation		-	(233,909)	(114,307)	(7,888,654)	(3,351)	(274,913)	-	(8,515,134)
Transfers[1]		(96,096)	1,222,639	21,076	1,367,213	753	45,476	(2,767,284)	(206,223)
Exchange differences and others		(2,913)	5,271	2,234	10,495	4	(1,250)	4,800	18,641
Ending balance		971,606	7,018,249	1,812,107	26,491,042	40,557	724,825	4,172,176	41,230,562
Acquisition cost		971,606	8,459,016	2,494,982	74,141,182	48,860	2,045,915	4,172,176	92,333,737
Accumulated depreciation		-	(1,401,792)	(663,771)	(47,485,857)	(8,292)	(1,321,067)	-	(50,880,779)
Accumulated impairment		-	(23,699)	(19,104)	(162,276)	-	(23)	-	(205,102)
Government grants		-	(15,276)	-	(2,007)	(11)	-	-	(17,294)
	₩	971,606	7,018,249	1,812,107	26,491,042	40,557	724,825	4,172,176 ₩	41,230,562

[1] Included transfers between investment property and property, plant and equipment during the year ended December 31, 2020.

(2) Details of depreciation expense allocation for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)		2021		2020
Cost of sales	₩	8,743,316	₩	7,749,569
Selling and administrative expenses		701,532		725,791
Other expenses		11,662		7,418
Development costs and other		80,186		32,356
	₩	9,536,696	₩	8,515,134

(3) Certain property, plant and equipment are pledged as collaterals for borrowings of the Group as of December 31, 2021 (Note 35).

(4) The Group capitalized borrowing costs amounting to ₩55,876 million (2020: ₩53,311 million) on qualifying assets during the year ended December 31, 2021. Borrowing costs were calculated using a capitalization rate of 2.47% (2020: 1.93%) for the year ended December 31, 2021.

13. Property, Plant and Equipment, Continued

(5) Details of insured assets as of December 31, 2021 are as follows:

(In millions of Korean won)

	Insured assets		Insured amount	Insurance Company
Package insurance	Property, plant and equipment; investment property; inventories; and business interruption	₩	125,475,697	Hyundai Marine & Fire Insurance Co., Ltd. and others
Fire insurance	Property, plant and equipment; investment property		78,912	
Erection all risks insurance	Property, plant and equipment		8,312,352	
		₩	133,866,961	

In addition to the assets stated above, vehicles are insured by vehicle comprehensive insurance and liability insurance.

(6) The Group provides certain property, plant, and equipment as operating leases. Rental income from the property, plant and equipment during the year ended December 31, 2021 are ₩14,699 million (2020: ₩27,737 million).

14. Leases

(1) Leases as lessee

(a) Changes in right-of-use assets for the years ended December 31, 2021 and 2020 are as follows

(In millions of Korean won)

		2021						
		Properties	Structures	Machinery	Vehicles	Others		Total
Beginning balance	₩	111,860	1,048,208	504,539	18,207	24,831	₩	1,707,645
Increase		57,663	13,958	85,791	9,002	55		166,469
Business Combination		48,933	-	580	-	-		49,513
Others		3,037	(10,879)	(67,812)	(2,795)	1,876		(76,573)
Depreciation		(31,904)	(86,716)	(179,536)	(10,197)	(15,743)		(324,096)
Foreign exchange difference		10,885	58,106	3,791	240	1,364		74,386
Ending balance		200,474	1,022,677	347,353	14,457	12,383		1,597,344
Acquisition cost		278,367	1,250,828	670,345	29,996	35,101		2,264,637
Accumulated depreciation		(43,921)	(228,151)	(322,992)	(15,539)	(22,718)		(633,321)
Government grants		(33,972)	-	-	-	-		(33,972)
	₩	200,474	1,022,677	347,353	14,457	12,383	₩	1,597,344

14. Leases, Continued

(1) Leases as lessee,Continued

(a) Changes in right-of-use assets for the years ended December 31, 2021 and 2020 are as follows, Continued:

(In millions of Korean won)

		2020						
		Properties	Structures	Machinery	Vehicles	Others		Total
Beginning balance	₩	97,855	975,996	609,529	11,491	11,787	₩	1,706,658
Increase		26,358	159,166	52,849	25,881	20,212		284,466
Others		6,607	(7,706)	15,823	(4,746)	-		9,978
Depreciation		(18,686)	(83,522)	(172,750)	(14,436)	(6,824)		(296,218)
Foreign exchange difference		(274)	4,274	(912)	17	(344)		2,761
Ending balance		111,860	1,048,208	504,539	18,207	24,831		1,707,645
Acquisition cost		169,300	1,210,800	811,315	29,684	40,787		2,261,886
Accumulated depreciation		(26,193)	(162,592)	(306,776)	(11,477)	(15,956)		(522,994)
Government grants		(31,247)	-	-	-	-		(31,247)
	₩	111,860	1,048,208	504,539	18,207	24,831	₩	1,707,645

(b) Changes in lease liabilities for the years ended December 31, 2021 and 2020 are as follows.

(In millions of Korean won)

		2021		2020
Beginning balance	₩	1,643,716	₩	1,666,999
Acquisition		166,469		284,466
Business combination		582		-
Others		(76,580)		9,389
Interest expenses		32,410		34,435
Payments		(333,434)		(326,665)
Foreign exchange difference		92,599		(24,908)
Ending balance	₩	1,525,762	₩	1,643,716

14. Leases, Continued

(c) The details of the minimum lease payment to be paid in the future for each period in connection with lease liabilities, present value and current/non-current classification of lease liabilities as of December 31, 2021 are as follows:

(In millions of Korean won)

		2021
Less than 1 year	₩	323,145
1~5 years		693,883
More than 5 years		604,977
Total lease liabilities undiscounted as of December 31, 2021		1,622,006
Present value of lease liabilities recognized as of December 31, 2021		1,525,762
Current lease liabilities		302,059
Noncurrent lease liabilities		1,223,703

(d) The amounts recognized in profit or loss in relation to right-of-use assets and lease liabilities for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Depreciation of right-to-use assets	₩	324,096	₩	296,218
Interest expenses of lease liabilities		32,410		34,435
Expenses relating to short-term leases		29,389		17,911
Expenses relating to leases of low-value assets		1,741		1,733

The total cash outflow from leases during the year ended December 31, 2021 is ₩364,564 million (2020: ₩346,309 million).

(2) Leases as lessor

The Group provides certain property, plant, and equipment and investment property as leases (See note 13,16). All leases are classified as operating leases.

Details of the undiscounted operating lease payments to be received in the future periods subsequent to December 31, 2021 are as follows:

(In millions of Korean won)

		Property, Plant and Equipment	Investment Property	Total
Less than 1 year	₩	12,458	14,650	27,108
1~2 years		3,948	14,547	18,495
2~3 years		-	14,438	14,438
	₩	16,406	43,635	60,041

15. Intangible Assets

(1) Changes in intangible assets for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

2021		Goodwill	Industrial property rights	Development costs	Others		Total
Beginning balance	₩	701,596	86,127	597,930	2,014,625	₩	3,400,278
Changes during 2021							
Internal development		-	-	362,863	-		362,863
External acquisition		-	11,336	-	549,344		560,680
Business combination		829,610	-	-	727,973		1,557,583
Disposals		-	(2,194)	-	(13,484)		(15,678)
Amortization		-	(16,831)	(369,650)	(409,452)		(795,933)
Impairment		-	-	(43,069)	(723)		(43,792)
Transfers		-	9,958	-	(6,466)		3,492
Others		24,303	-	-	11,336		35,639
Ending balance		1,555,509	88,396	548,074	2,873,153		5,065,132
Acquisition cost		1,555,509	210,878	3,548,213	4,351,279		9,665,879
Accumulated amortization and impairment		-	(122,482)	(3,000,139)	(1,478,126)		(4,600,747)
	₩	1,555,509	88,396	548,074	2,873,153	₩	5,065,132

(In millions of Korean won)

2020		Goodwill	Industrial property rights	Development costs	Others		Total
Beginning balance	₩	720,197	85,724	931,788	833,340	₩	2,571,049
Changes during 2020							
Internal development		-	-	259,020	-		259,020
External acquisition		-	13,693	-	412,524		426,217
Disposals		-	(3,782)	-	(8,504)		(12,286)
Amortization		-	(16,001)	(576,334)	(368,215)		(960,550)
Impairment		-	-	(16,544)	-		(16,544)
Transfers		-	6,493	-	(9,720)		(3,227)
Others[1]		(18,601)	-	-	1,155,200		1,136,599
Ending balance		701,596	86,127	597,930	2,014,625		3,400,278
Acquisition cost		701,596	195,637	3,185,403	3,110,632		7,193,268
Accumulated amortization and impairment		-	(109,510)	(2,587,473)	(1,096,007)		(3,792,990)
	₩	701,596	86,127	597,930	2,014,625	₩	3,400,278

[1] Others include reclassification of license assets and increase/decrease due to foreign exchange difference is included

(2) Details of amortization expense allocation for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Cost of sales	₩	248,920	₩	219,851
Selling and administrative expenses		545,405		739,247
Development costs		1,608		1,452
	₩	795,933	₩	960,550

15. Intangible Assets, Continued

(3) Goodwill impairment tests

The Group performs goodwill impairment tests annually. For the purpose of impairment tests, goodwill is allocated to CGU. The recoverable amount of the CGU as of December 31, 2021 was determined based on fair value less costs to sell, which was determined based on the amount using the current stock price as of December 31, 2021. No impairment loss of goodwill was recognized since the recoverable amount is higher than the carrying value of the CGU as of December 31, 2021.

(4) Details of development costs

(a) Detailed criteria for capitalization of development costs
The Group's development projects for a new product proceeds in the process of review and planning phases (Phase 0 ~ 4) and product design and pre-mass production phases (Phase 5 ~ 8). The Group recognizes expenditures incurred after Phase 4 in relation with the development for new technology is recognized as an intangible asset. Expenditures incurred at phase 0 through 4 are recognized as expenses.

(b) Development cost capitalized and expenses on research and development
Among costs associated with development activities, ₩362,863 million (2020: ₩259,020 million) that met capitalization criteria, were capitalized as development cost for the year ended December 31, 2021. In addition, costs associated with research activities and other development expenditures that did not meet the criteria in the amount of ₩3,551,197 million (2020: ₩3,111,298 million) were recognized as expenses for the year ended December 31, 2021.

15. Intangible Assets, Continued

(4) Details of development costs, Continued

(c) Details of development costs as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	2021		
		Book value	Residual amortization period
DRAM	₩	99,307	18 months
		5,624	[1]
NAND		260,896	6~19 months
		147,842	[1]
CIS		34,405	[1]
	₩	548,074	

[1] Amortization has not started as of December 31, 2021

(In millions of Korean won)

	2020		
		Book value	Residual amortization period
DRAM	₩	46,995	11 months
		60,549	[1]
NAND		296,317	18 months
		124,328	[1]
CIS		43,883	2~12 months
		25,858	[1]
	₩	597,930	

[1] Amortization has not started as of December 31, 2020

(d) The Group recognized ₩43,069 million (2020: ₩16,544 million) impairment loss in development costs for the year ended December 31, 2021.

16. Investment Property

(1) Changes in investment property for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Beginning net book amount	₩	209,417	₩	258
Depreciation		(1,773)		(291)
Transfer[1]		(43,447)		209,450
Ending net book amount		164,197		209,417
Acquisition cost		170,549		249,135
Accumulated depreciation		(6,352)		(39,718)
	₩	164,197	₩	209,417

[1] Certain property, plant and equipment was transferred to invenstment property during the year ended December 31, 2021 and certain investment property was transferred to property, plant and equipment during the year ended December 31, 2020.

(2) The depreciation expense of ₩1,773 million was charged to cost of sales for the year ended December 31, 2021 (2020: ₩291 million).

(3) Rental income from investment property during the year ended December 31, 2021 was ₩14,759 million (2020: ₩1,235 million).

17. Other Payables

Details of other payables as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		December 31, 2021		December 31, 2020
Current				
Rent deposits payable	₩	5,702	₩	-
Accrued expenses		2,272,614		1,367,193
		2,278,316		1,367,193
Non-current				
Rent deposits payable		8,690		6,360
Long-term accrued expenses		23,743		23,563
		32,433		29,923
	₩	2,310,749	₩	1,397,116

18. Borrowings

(1) Details of borrowings as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Current				
Short-term borrowings	₩	233,199	₩	179,579
Current portion of long-term borrowings		2,087,796		2,604,724
Current portion of debentures		559,768		329,947
		2,880,763		3,114,250
Non-current				
Long-term borrowings		7,529,063		4,526,968
Debentures		7,213,983		3,610,430
		14,743,046		8,137,398
	₩	17,623,809	₩	11,251,648

(2) Details of short-term borrowings as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	Financial Institutions	Maturity date	Interest rate per annum in 2021 (%)[1]		2021		2020
Local currency borrowings: General borrowings	Shinhan Bank	2021.09.27	-	₩	-	₩	4,000
Foreign currency borrowings: General borrowings	Cypress	2021.12.31	-		-		6,924
	Industrial & Commercial Bank of China	2021.01.20	-		-		32,682
	China Construction Bank and others	2021.02.26	-		-		76,258
	City Bank	2021.07.14 ~ 2022.11.17	1M USD LIBOR +0.55		38,860		59,715
	China Merchants Bank	2022.01.21 ~ 2022.09.27	3M USD Libor +0.55 ~ 1.90		58,370		-
	Bank of China	2022.09.07 ~ 2022.12.10	3M USD Libor +1.18 ~ 1.20		57,150		-
	Hystars Semiconductor (Wuxi) Co., Ltd.	2022.03.21 ~ 2022.05.13	4.15 ~ 5.10		78,819		-
				₩	233,199	₩	179,579

18. Borrowings, Continued

(3) Details of long-term borrowings as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)	Financial institutions	Maturity date	Interest rate per annum in 2021 (%)[1]	2021	2020
Local currency borrowings:					
Funds for equipment	Korea Development Bank	2021.09.29 ~ 2025.04.14	1.98 ~ 2.50	₩ 475,000	₩ 725,000
	The Export-Import Bank of Korea	2022.10.23 ~ 2025.05.15	1.31 ~ 2.00	600,000	600,000
	Shinhan Bank and others	2025.03.31 ~ 2028.04.09	1.00 ~ 3.08	5,105	3,573
Commercial Paper	Shinhan Bank General Finance Department	2023.11.20	CD(91 days) + 0.67	300,000	300,000
				1,380,105	1,628,573
Foreign currency borrowings:					
General borrowings	The Export-Import Bank of Korea	2021.05.31	-	-	843,408
	The Export-Import Bank of Korea	2023.02.03	3M USD LIBOR + 1.30	118,550	108,800
	China Development Bank	2023.05.26 ~ 2023.11.25	3M USD LIBOR + 1.00	184,068	212,432
Funds for equipment	The Export-Import Bank of Korea	2021.02.25~ 2026.04.28	3M USD LIBOR + 0.95~1.40	414,925	244,800
	The Export-Import Bank of Korea	2022.03.28	3M USD LIBOR + 1.31	296,884	272,349
	Korea Development Bank	2026.10.02	3M USD LIBOR + 1.10	592,750	544,000
	China Bank	2022.11.28 ~ 2025.04.18	3M USD LIBOR + 0.80~ 1.70	415,877	187,376
	Industrial & Commercial Bank of China and others	2027.12.21	3M USD LIBOR + 1.65	237,508	-
Syndicated loan	Korea Development Bank and others	2025.12.29	3M USD LIBOR + 1.10	2,371,000	-
		2027.12.28	3M USD LIBOR + 1.25	1,185,500	-
	Industrial & Commercial Bank of China and others	2024.04.24	3M USD LIBOR + 1.65	2,337,965	3,097,974
				8,155,027	5,511,139
Collateralized borrowings					
Collateralized borrowings	Macquarie Finance Korea Co., Ltd.	2024.03.22	4.17	103,910	-
		2024.04.26	7.85	11,747	-
				115,657	-
				9,650,789	7,139,712
Less: Current portion				(2,087,796)	(2,604,724)
Less: Present value discount				(33,930)	(8,020)
				₩ 7,529,063	₩ 4,526,968

[1] As of December 31, 2021, the annual interest rates are as follows:

Type	Interest rate per annum as of December 31, 2021
1M USD LIBOR	0.11
3M USD LIBOR	0.21
CD(91 Days)	1.29

18. Borrowings, Continued

(4) Details of debentures as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	Maturity date	Interest rate per annum in 2021 (%)		2021		2020
Unsecured notes in local currency:						
Unsecured corporate bonds 214-2nd	2022.08.26	2.63	₩	140,000	₩	140,000
Unsecured corporate bonds 215-3rd	2022.11.25	2.75		10,000		10,000
Unsecured corporate bonds 216-2nd	2021.02.19	-		-		180,000
Unsecured corporate bonds 216-3rd	2023.02.19	2.53		80,000		80,000
Unsecured corporate bonds 217-2nd	2021.05.27	-		-		150,000
Unsecured corporate bonds 218th	2023.03.14	3.01		300,000		300,000
Unsecured corporate bonds 219-1st	2023.08.27	2.48		250,000		250,000
Unsecured corporate bonds 219-2nd	2025.08.27	2.67		90,000		90,000
Unsecured corporate bonds 220-1st	2022.05.09	1.96		410,000		410,000
Unsecured corporate bonds 220-2nd	2024.05.09	1.99		200,000		200,000
Unsecured corporate bonds 220-3rd	2026.05.09	2.17		120,000		120,000
Unsecured corporate bonds 220-4th	2029.05.09	2.54		250,000		250,000
Unsecured corporate bonds 221-1st	2023.02.14	1.61		340,000		340,000
Unsecured corporate bonds 221-2nd	2025.02.14	1.72		360,000		360,000
Unsecured corporate bonds 221-3rd	2027.02.14	1.93		130,000		130,000
Unsecured corporate bonds 221-4th	2030.02.14	2.21		230,000		230,000
Unsecured corporate bonds 222-1st	2030.11.10	2.33		70,000		70,000
Unsecured corporate bonds 222-2nd	2035.11.10	2.73		100,000		100,000
Unsecured corporate bonds 223-1st	2024.04.12	1.51		550,000		-
Unsecured corporate bonds 223-2nd	2026.04.13	1.89		360,000		-
Unsecured corporate bonds 223-3rd	2028.04.13	2.11		80,000		-
Unsecured corporate bonds 223-4th	2031.04.13	2.48		190,000		-
				4,260,000		3,410,000
Unsecured notes in foreign currency:						
Unsecured global bonds 9th	2024.09.17	3.00		592,750		544,000
Unsecured global bonds 10-1st	2024.01.19	1.00		592,750		-
Unsecured global bonds 10-2nd	2026.01.19	1.50		1,185,500		-
Unsecured global bonds 10-3rd	2031.01.19	2.38		1,185,500		-
				3,556,500		544,000
				7,816,500		3,954,000
Less: Discounts on debentures				(42,749)		(13,623)
Less: Current portion				(559,768)		(329,947)
			₩	7,213,983	₩	3,610,430

19. Other Current and Non-current Liabilities

Details of other current and non-current liabilities as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)		December 31, 2021		December 31, 2020
Current				
Advance receipts	₩	22,158	₩	13,006
Unearned income		486		404
Withholdings		134,811		67,043
Deposits received		-		14,063
Contract liabilities		125,414		96,378
Others		11,911		6,501
		294,780		197,395
Non-current				
Other long-term employee benefits		94,005		94,026
Long-term advance receipts		-		4,901
Others		1		-
		94,006		98,927
	₩	388,786	₩	296,322

20. Provisions

(1) Changes in provisions for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	2021			
	Beginning Balance	**Increase**	**Utilization**	**Ending Balance**
Warranty	₩ 3,015	₩ 26,482	₩ (26,170)	₩ 3,327
Emission allowances	10,782	5,785	(9,727)	6,840
	₩ 13,797	₩ 32,267	₩ (35,897)	₩ 10,167

(In millions of Korean won)

	2020			
	Beginning Balance	**Increase**	**Utilization**	**Ending Balance**
Warranty	₩ 4,081	₩ 1,087	₩ (2,153)	₩ 3,015
Emission allowances	6,620	13,070	(8,908)	10,782
	₩ 10,701	₩ 14,157	₩ (11,061)	₩ 13,797

(2) Provisions for warranty

The Group estimates the expected warranty costs based on historical results and records provisions for warranty.

(3) Provisions for legal claims

The Group recognizes provisions for legal claims when the Group has a present legal or constructive obligation as a result of past events and an outflow of resources required to settle the obligation is probable and the amount can be reliably estimated.

20. Provisions, Continued

(4) Provision for emission allowances
The Group recognizes estimated future payment for the number of emission certificates required to settle the Group's obligation exceeding the actual number of certificates on hand as emission allowances according to the Act on Allocation and Trading of Greenhouse Gas Emission Permits.

(a) Details of the allocated amount of emission permits as of the second and third compliance periods are as follows:

(In ten thousand tons CO2-eq)

	The second compliance period (2018 - 2020)	The third compliance period (2021 - 2025)					
	2020	2021	2022	2023	2024	2025	Total
Allocated emission permits	476	505	505	505	505	505	2,525

(b) Changes in the emission permits rights for the year ended December 31, 2021 are as follows:

(In ten thousand tons CO2-eq)

	2021
Beginning balance	-
Allocated	476
Purchase	60
Submission	(536)
Ending balance	-

(c) The estimated volume of emission made by the Group is 5.18 million tons as of December 31, 2021.

21. Defined Benefit Liabilities

Under the defined benefit plan, the Group pays employee benefits to retired employees in the form of a lump sum based on their salaries and years of service at the time of their retirement. Accordingly, the Group is exposed to a variety of actuarial assumption risks such as risk associated with expected years of service, interest risk, and market (investment) risk.

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

(In millions of Korean won)

		December 31, 2021		December 31, 2020
Present value of defined benefit obligations	₩	2,392,020	₩	2,169,154
Fair value of plan assets		(2,819,782)		(2,228,377)
Net defined benefit liabilities	₩	(427,762)	₩	(59,223)
Defined benefit liabilities		1,200		2,739
Defined benefit assets[1]		(428,962)		(61,962)

[1] The Parent Company and certain subsidiaries' fair value of plan assets in excess of the present value of defined benefit obligations amounted to ₩428,962 million and ₩61,962 million as of December 31, 2021 and 2020 are presented as defined benefit assets.

(2) Principal actuarial assumptions as of December 31, 2021 and 2020 are as follows:

	December 31, 2021 (%)	December 31, 2020 (%)
Discount rate for defined benefit obligations	2.50 ~ 4.01	1.96 ~ 3.56
Expected rate of salary increase	3.00 ~ 5.52	3.00 ~ 5.51

(3) Weighted average durations of defined benefit obligations as of December 31, 2021 and 2020 are 11.76 and 11.77 years, respectively.

(4) Changes in defined benefit obligations for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Beginning balance	₩	2,169,154	₩	1,936,868
Current service cost		256,867		250,098
Past service cost		(2,199)		(714)
Interest expense		74,615		65,002
Transfer from associates		(2,763)		(2,205)
Remeasurements:		(13,956)		(25,036)
Demographic assumption		(292)		39,198
Financial assumption		(123,677)		(35,429)
Adjustment based on experience		110,013		(28,805)
Benefits paid		(89,784)		(54,824)
Effect of movements in exchange rates		86		(35)
Ending balance	₩	2,392,020	₩	2,169,154

21. Defined Benefit Liabilities, Continued

(5) Changes in plan assets for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Beginning balance	₩	2,228,377	₩	1,886,650
Contributions		641,680		355,664
Interest income		76,607		62,834
Transfer from associates		56		231
Benefits paid		(94,276)		(53,588)
Remeasurements		(32,695)		(23,373)
Foreign exchange differences		33		(41)
Ending balance	₩	2,819,782	₩	2,228,377

(6) The amounts recognized in profit or loss for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Current service cost	₩	256,867	₩	250,098
Past service cost		(2,199)		(714)
Net interest expense		(1,993)		2,168
	₩	252,675	₩	251,552

(7) The amounts in which defined benefit plan related expenses are included for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Cost of sales	₩	137,401	₩	135,999
Selling and administrative expenses		115,274		115,553
	₩	252,675	₩	251,552

(8) Details of plan assets as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Deposits	₩	2,818,634	₩	2,227,196
Others		1,148		1,181
	₩	2,819,782	₩	2,228,377

Actual return on plan assets for the years ended December 31, 2021 and 2020 amounted to ₩43,915 million and ₩32,645 million, respectively.

(9) As of December 31, 2021, the Group funded defined benefit obligations through insurance plans with Mirae Asset Life Insurance Co., Ltd. and other insurance companies. The Group's reasonable estimation of contribution to the plan assets for the year ending December 31, 2021 is ₩552,999 million under the assumption that the Group maintains the defined benefit plan.

21. Defined Benefit Liabilities, Continued

(10) The sensitivity analysis of the defined benefit obligations as of December 31, 2021 to changes in the principal assumptions is as follows:

(In millions of Korean won)

		Effects on defined benefit obligation	
		Increase of rate	**Decrease of rate**
Discount rate (if changed by 1%)	₩	(246,053)	289,318
Expected rate of salary increase (if changed by 1%)		289,527	(250,644)

The sensitivity analysis above was calculated under the assumption that other assumptions were constant. The sensitivity of defined benefit liabilities to changes in major actuarial assumptions was calculated using the same predictive unit approach used to calculate defined benefit liabilities recognized in the statement of financial position.

(11) Information about the maturity profile of the defined benefit obligation as of December 31, 2021 is as follows:

(In millions of Korean won)

		Less than 1 year	2 - 5 years	6 - 10 years	More than 11 years	Total
Benefits paid	₩	77,628	517,474	1,218,062	9,659,470	11,472,633

Information about the maturity profile is based on the undiscounted and vested amount of defined benefit obligation as of December 31, 2021, and classified by employee's expected years of remaining services.

(12) The Group adopted defined contribution plan for retirement benefit for employees subject to peak wage system. Contributions to defined contribution plans amounting to ₩3,040 million (2020: ₩931 million) was expensed for the year ended December 31, 2021.

22. Deferred Income Tax

(1) Changes in deferred income tax assets and liabilities for the years ended December 31, 2021 and 2020 without taking into consideration the offsetting of balances within the same tax authority, are as follows:

(In millions of Korean won)

		2021					
		Beginning	**Profit or loss**	**Equity**	**Foreign exchange differences**		**Ending**
Inventories, net	₩	123,341	(18,116)	-	483	₩	105,708
Property, plant and equipment, net		436,672	(112,254)	-	45,394		369,812
Defined benefits liabilities, net		(1,876)	(112,888)	5,028	(6)		(109,742)
Short-term and long-term investment assets and others		(542,300)	(130,663)	-	-		(672,963)
Employee benefits		59,471	(2,946)	-	6		56,531
Provisions		(9,441)	(18,471)	-	50		(27,862)
Other assets and other liabilities		19,378	7,939	-	(172)		27,145
Accrued expenses		100,714	23,851	-	-		124,565
Others		11,815	1,994	-	1,043		14,852
Deferred tax assets for temporary differences, net		197,774	(361,554)	5,028	46,798		(111,954)
Tax credit carryforwards recognized		3,899	227	-	331		4,457
Tax loss carryforwards recognized		87,881	(24,771)	-	6,636		69,746
Deferred tax assets recognized, net	₩	289,554	(386,098)	5,028	53,765	₩	(37,751)

22. Deferred Income Tax, Continued

(1) Changes in deferred income tax assets and liabilities for the years ended December 31, 2021 and 2020 without taking into consideration the offsetting of balances within the same tax authority, are as follows; Continued:

(In millions of Korean won)

		2020						
		Beginning	Adjustment	Profit or loss	Equity	Foreign exchange differences		Ending
Inventories, net	₩	176,742	-	(52,937)	-	(464)	₩	123,341
Property, plant and equipment, net		208,478	27,188	201,165	-	(159)		436,672
Defined benefits liabilities, net		7,756	-	(9,798)	169	(3)		(1,876)
Short-term and long-term investment assets and others		(27,555)	-	(514,745)	-	-		(542,300)
Employee benefits		46,537	-	12,936	-	(2)		59,471
Provisions		3,589	-	(13,006)	-	(24)		(9,441)
Other assets and other liabilities		11,629	-	7,632	-	117		19,378
Accrued expenses		92,408	-	8,306	-	-		100,714
Others		14,681	-	(2,410)	-	(456)		11,815
Deferred tax assets for temporary differences, net		534,265	27,188	(362,857)	169	(991)		197,774
Tax credit carryforwards recognized		6,251	-	(2,192)	-	(160)		3,899
Tax loss carryforwards recognized		117,381	-	(24,561)	-	(4,939)		87,881
Deferred tax assets recognized, net	₩	657,897	27,188	(389,610)	169	(6,090)	₩	289,554

(2) As of December 31, 2021 and 2020, the temporary differences that are not recognized as deferred tax assets (liabilities) are as follows:

(In millions of Korean won)		December 31, 2021		December 31, 2020
Investments in subsidiaries, associates, and joint ventures and others				
Deductible temporary differences	₩	2,843,394	₩	2,637,294
Taxable temporary differences		(3,334,324)		(3,130,362)
		(490,930)		(493,068)
Deductible temporary differences and others		5,304		12,790

22. Deferred Income Tax, Continued

(3) Details of period when the deferred income tax assets (liabilities) are recovered (settled) as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		December 31, 2021		December 31, 2020
Deferred income tax assets to be recovered after more than 12 months	₩	1,322,134	₩	1,410,835
Deferred income tax assets to be recovered within 12 months		275,415		142,651
Deferred income tax assets recognized		1,597,549		1,553,486
Deferred income tax liabilities to be recovered after more than 12 months		(1,634,805)		(1,263,264)
Deferred income tax liabilities to be settled within 12 months		(495)		(668)
Deferred income tax liabilities recognized		(1,635,300)		(1,263,932)
Net income deferred tax assets (liabilities) recognized	₩	(37,751)	₩	289,554

23. Derivative Financial Instruments

(1) Cross currency and interest rate swap

(a) Details of derivative financial instruments applying cash flow hedge accounting as of December 31, 2021 are as follows:

(In thousands of foreign currencies)

Hedged items			Hedging instruments		
Borrowing date	**Financial instrument**	**Hedged risk**	**Type of contract**	**Financial institution**	**Contract period**
2019.09.17	Foreign currency denominated bond with fixed rate (Par value: USD 500,000)	Foreign currency risk	Fixed-to-fixed cross currency swap	Kookmin Bank and others	2019.09.17 ~ 2024.09.17
2019.10.02	Foreign currency denominated borrowing for equipment with floating rate (Par value: USD 500,000)	Foreign currency and interest rate risk	Floating-to-fixed cross currency interest rate swap	Korea Development Bank	2019.10.02 ~ 2026.10.02
2020.02.03	Foreign currency denominated borrowing with floating rate (Par value: USD 50,000)	Interest rate risk	Interest rate swap	Woori Bank	2020.02.03 ~ 2023.02.03
2020.03.18	Foreign currency denominated borrowing with floating rate (Par value: USD 50,000)	Interest rate risk	Interest rate swap	Woori Bank	2020.03.18 ~ 2023.02.03

23. Derivative Financial Instruments, Continued

(b) The derivative financial instruments held by the Group are presented in non-current other financial assets and non-current other financial liabilities in the consolidated financial statements of financial position as of December 31, 2021, and the details are as follows:

(In millions of Korean won and thousands of foreign currencies)

Type of contract	Hedged items		Cash flow hedge		Fair value
Financial assets					
Fixed-to-fixed cross currency swap	Foreign currency denominated bond with fixed rate (Par value: USD 500,000)	₩	22,259		22,259
Floating-to-fixed cross currency interest rate swap	Foreign currency denominated borrowing for equipment with floating rate (Par value: USD 500,000)		4,288		4,288
				₩	26,547
Financial liabilities					
Interest rate swap	Foreign currency denominated borrowing with floating rate (Par value: USD 50,000)	₩	575		575
Interest rate swap	Foreign currency denominated borrowing with floating rate (Par value: USD 50,000)		127		127
				₩	702

As of December 31, 2021, changes of fair value of the derivative is recognized in other comprehensive income or loss as all of designated hedging instruments are effective for foreign currency risk or foreign currency and interest rate risk.

(2) Option contracts

(a) As of December 31, 2021, the Group has a option contract entered with Cypress, a non-controlling shareholder of its subsidiary, SkyHigh Memory Ltd., and the contract details are as follows:

Target of Evaluation		Description
Put option	Option owner	Cypress
	Option buyer	SK hynix system ic (subsidiary of the Group and the immediate parent of SkyHigh Memory)
	Terms and conditions	If an agreement regarding the extension of the contract fails in five years since the inception of the Joint Venture Agreement, Cypress has the right to sell all of Cypress' shares in SkyHigh Memory to SK hynix system ic at a book value per share.
Call option	Option buyer	SK hynix system ic
	Option Seller	Cypress
	Terms and conditions	If an agreement regarding the extension of the contract fails in five years since the inception of the Joint Venture Agreement, SK hynix system ic has the right to purchase all of Cypress' shares in SkyHigh Memory at a book value per share from Cypress.

23. Derivative Financial Instruments, Continued

(2) Option contracts, Continued

(b) The Group recognizes option valuation gains (loss) during the current year as financial income (expenses).The fair value of options as of December 31, 2021 is as follows:

(In millions of Korean won)

		December 31, 2021		
		Hedge accounting	Held for trading accounting	Fair value
Call option	₩	-	34,808	34,808
Put option		-	(262)	(262)
Derivative Financial				34,546

(c) The sensitivity analysis of the options as of December 31, 2021 to changes in the value of underlying assets is as follows:

(In millions of Korean won)

	The value of underlying assets	
	10% decrease	10% increase
Call option	29,822	39,830
Put option	(370)	(187)
	29,452	39,643

24. Capital Stock, Capital Surplus and Other Equity

(1) The Parent Company has 9,000,000,000 authorized shares and the face value per share is ₩ 5,000 as of December 31, 2021. The number of shares issued, common stock, capital surplus and other capital as of December 31, 2021 and 2020, are as follows:

(In millions of Korean won and thousands of shares)

		December 31, 2021		December 31, 2020
Issued shares[1]		731,530		731,530
Capital stock:				
Common stock	₩	3,657,652	₩	3,657,652
Capital surplus:				
Additional paid-in capital		3,625,797		3,625,797
Others		708,846		517,939
		4,334,643		4,143,736
Other equity:				
Acquisition cost of treasury shares[2]		(2,302,119)		(2,508,427)
Share options		7,557		5,305
	₩	(2,294,562)	₩	(2,503,122)
Number of treasury shares		40,382		44,001

[1] As of December 31, 2021, the number of outstanding shares is 728,002 thousand shares, which differs from total issued shares due to share retirement.
[2] Through the resolution of the Board of Directors on April 28, 2021, the Group transferred 3,618,878 treasury shares to employee stock ownership association (3,282,343 shares of discounted acquisition and 336,535 shares of free acquisition) and, accordingly, gain on disposal of treasury of ₩ 191,247 million occurred.

(2) The number of outstanding shares, which deducted treasury shares held by the Parent Company from listed shares of December 31, 2021 and 2020, are as follows:

(In shares)

	December 31, 2021		
	Outstanding shares	Treasury shares	Total
The number of outstanding shares	728,002,365	40,381,692	687,620,673

(In shares)

	December 31, 2020		
	Outstanding shares	Treasury shares	Total
The number of outstanding shares	728,002,365	44,000,570	684,001,795

25. Accumulated Other Comprehensive Loss

(1) Details of accumulated other comprehensive loss as of December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		December 31, 2021		December 31, 2020
Equity-accounted investees – share of other comprehensive income	₩	54,051	₩	(57,542)
Foreign operations – foreign currency translation differences		598,741		(360,247)
Gain on valuation of derivatives		22,479		12,336
	₩	675,271	₩	(405,453)

(2) Changes in accumulated other comprehensive loss for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

	2021					
		Beginning		Change		Ending
Equity-accounted investees – share of other comprehensive income(loss)	₩	(57,542)	₩	111,593	₩	54,051
Foreign operations – foreign currency translation differences		(360,247)		958,988		598,741
Gain on valuation of derivatives		12,336		10,143		22,479
	₩	(405,453)	₩	1,080,724	₩	675,271

(In millions of Korean won)	2020					
		Beginning		Change		Ending
Equity-accounted investees – share of other comprehensive income (loss)	₩	3,278	₩	(60,820)	₩	(57,542)
Foreign operations – foreign currency translation differences		(314,966)		(45,281)		(360,247)
Gain (loss) on valuation of derivatives		12,753		(417)		12,336
	₩	(298,935)	₩	(106,518)	₩	(405,453)

26. Retained Earnings

Retained earnings as of December 31, 2021 and 2020, are as follows:

(In millions of Korean won)

		December 31, 2021		December 31, 2020
Legal reserve[1]	₩	429,983	₩	349,954
Discretionary reserve[2]		235,506		235,506
Unappropriated retained earnings		55,118,579		46,410,268
	₩	55,784,068	₩	46,995,728

[1] The Commercial Code of the Republic of Korea requires the Parent Company to appropriate for each financial period, as a legal reserve, an amount equal to a minimum of 10% of cash dividends paid until such reserve equals 50% of its issued capital stock. The reserve is not available for cash dividends payment, but may be transferred to capital stock or used to reduce accumulated deficit.
[2] Discretionary reserve is the reserve for technology development.

(2) Dividends of the Parent Company

(a) Details of dividends for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won and In thousands of shares)

		2021		2020
Type of dividends		Cash Dividends		Cash Dividends
Outstanding ordinary shares		687,621		684,002
Par value (in won)	₩	5,000	₩	5,000
Dividend rate		31%		23%
Total dividends	₩	1,058,936	₩	800,282

(b) Dividend payout ratio for the years ended December 31, 2021 and 2020 is as follows:

(In millions of Korean won)

		2021		2020
Dividends	₩	1,058,936	₩	800,282
Profit attributable to owners of the Parent Company		9,602,316		4,755,102
Dividend payout ratio		11.03%		16.83%

(c) Dividend yield ratio for the years ended December 31, 2021 and 2020 is as follows:

(In Korean won)

		2021		2020
Dividends per share	₩	1,540	₩	1,170
Closing stock price		131,000		118,500
Dividend yield ratio		1.18%		0.99%

27. Revenue

(1) Details of the Group's revenue for years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Sale of goods	₩	42,932,963	₩	31,837,538
Providing services		64,829		62,880
	₩	42,997,792	₩	31,900,418

(2) Details of the Group's revenue by product and service types for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
DRAM	₩	30,599,711	₩	22,536,404
NAND Flash		10,529,447		7,471,242
Others		1,868,634		1,892,772
	₩	42,997,792	₩	31,900,418

(3) The Group's revenue information by region based on the location of selling entities for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Korea	₩	1,461,982	₩	1,452,006
China		15,730,223		12,217,634
Taiwan		2,989,315		1,905,650
Asia (other than China and Taiwan)		4,033,614		2,416,321
U.S.A.		17,144,323		12,686,108
Europe		1,638,335		1,222,699
	₩	42,997,792	₩	31,900,418

(4) Details of the Group's revenue by the timing of revenue recognition during the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Performance obligations satisfied at a point in time	₩	42,932,963	₩	31,837,538
Performance obligations satisfied over time		64,829		62,880
	₩	42,997,792	₩	31,900,418

28. Selling and Administrative Expenses

Selling and administrative expenses for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Selling and administrative expenses:				
Salaries	₩	787,830	₩	592,894
Defined benefit plan		41,326		40,927
Employee benefits		181,651		159,600
Commission		519,432		334,570
Depreciation		218,673		245,858
Amortization		526,181		719,652
Training		68,132		67,626
Advertising		93,050		95,158
Supplies		109,138		100,748
Sales promotion expenses		165,482		107,316
Others		279,760		222,358
		2,990,655		2,686,707
Research and development:				
Expenditure on research and development		3,914,060		3,370,318
Development cost capitalized		(362,863)		(259,020)
		3,551,197		3,111,298
	₩	6,541,852	₩	5,798,005

29. Expenses by Nature

Nature of expenses for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Changes in finished goods and work-in-process	₩	(660,386)	₩	(616,725)
Raw materials, supplies and consumables		8,243,214		7,649,164
Employee benefit		5,311,842		3,833,439
Depreciation and others		10,646,887		9,764,776
Royalty		2,521,074		2,149,025
Utilities		1,612,864		1,459,346
Repair		1,298,083		1,129,642
Outsourcing		1,035,735		1,188,589
Others		961,171		639,284
Transfer: capitalized development cost and others		(383,032)		(308,746)
Total[1]	₩	30,587,452	₩	26,887,794

[1] Total expenses consist of cost of sales and selling and administrative expenses.

30. Finance Income and Expenses

Finance income and expenses for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Finance income:				
Interest income	₩	22,419	₩	27,872
Dividend income		10,163		1,325
Foreign exchange differences		1,693,274		1,527,580
Gain on valuation of short-term investment assets		7,366		2,592
Gain on valuation of long-term investment assets		527,811		1,741,026
Gain on valuation of derivatives		34,546		-
Gain on disposal of short-term investment assets		48,595		27,510
Gain on disposal of long-term investment assets		33,342		-
		2,377,516		3,327,905
Finance expenses:				
Interest expenses		259,960		253,468
Foreign exchange differences[1]		1,204,657		1,717,989
Loss on disposal of short-term investment assets		125		-
Loss on valuation of long-term investment assets		3,402		7,273
Loss on valuation of financial liabilities		1,716		1,681
		1,469,860		1,980,411
Net finance income (expenses)	₩	907,656	₩	1,347,494

[1] For the year ended December 31, 2021, the foreign exchange difference gain from long-term investment assets amounting to ₩117,526 million (2020: ₩44,214 million) is included.

31. Other Income and Expenses

(1) Other income for years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Gain on disposal of property, plant and equipment	₩	71,681	₩	38,585
Others		44,454		46,188
	₩	116,135	₩	84,773

(2) Other expenses for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Loss on disposal of property, plant and equipment	₩	12,324	₩	44,955
Loss on disposal of intangible assets		3,890		4,841
Loss on disposal of trade receivables		5,462		6,320
Loss on impairment of intangible assets		43,792		16,544
Donation		77,334		70,461
Others		37,622		28,454
	₩	180,424	₩	171,575

32. Income Tax Expense

(1) Income tax expense for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Current tax:				
Current tax on profits for the year	₩	3,308,525	₩	1,113,166
Adjustments for the current tax liabilities attributable to prior year, but recognized in current year		105,176		(24,653)
		3,413,701		1,088,513
Deferred tax:				
Changes in net deferred tax assets		386,098		389,610
Income tax expense	₩	3,799,799	₩	1,478,123

32. Income Tax Expense, continued

(2) The relationship between tax expense and accounting profit for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Profit before income tax	₩	13,415,987	₩	6,237,037
Tax calculated at domestic tax rates applicable to profits in the respective countries		3,774,276		1,704,823
Tax effects of:				
Tax-exempt income		(6,401)		(70,922)
Non-deductible expenses		15,668		19,977
Change in unrecognized deferred tax assets		(889)		8,667
Tax credits		(207,886)		(118,011)
Adjustments for the current tax liabilities attributable to prior year, but recognized in current year		78,151		(24,653)
Others		146,880		(41,758)
Income tax expense	₩	3,799,799	₩	1,478,123

(3) Income taxes recognized in other comprehensive income (loss) for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Remeasurements of defined benefit liabilities	₩	5,028	₩	169
Gain on valuation of derivatives		(3,275)		(680)
Gain on disposal of treasury stock		(72,542)		-
	₩	(70,789)	₩	(511)

33. Earnings per Share

Basic earnings per share is calculated by dividing the profit attributable to ordinary shareholders of the Parent Company by the weighted average number of outstanding ordinary shares for years ended December 31, 2021 and 2020.

(1) Basic earnings per share for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won, except for shares and per share information)

		2021		2020
Profit attributable to ordinary shareholders of the Parent Company	₩	9,602,316	₩	4,755,102
Weighted average number of outstanding ordinary shares[1]		686,411,075		684,001,795
Basic earnings per share (in won)	₩	13,989	₩	6,952

[1] Weighted average number of outstanding ordinary shares is calculated as follows:

(In shares)

	2021	2020
Outstanding ordinary shares	728,002,365	728,002,365
Acquisition of treasury shares	(41,591,290)	(44,000,570)
Weighted average number of outstanding ordinary shares	686,411,075	684,001,795

(2) Diluted earnings per share for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won, except for shares and per share information)

		2021		2020
Profit attributable to ordinary shareholders of the Parent Company	₩	9,602,316	₩	4,755,102
Weighted average number of diluted outstanding ordinary shares[1]		686,661,446		684,139,222
Diluted earnings per share (in won)	₩	13,984	₩	6,950

[1] Weighted average number of diluted outstanding ordinary shares is calculated as follows:

(In shares)

	2021	2020
Weighted average number of outstanding ordinary shares	686,411,075	684,001,795
Stock options	250,371	137,427
Weighted average number of diluted outstanding ordinary shares	686,661,446	684,139,222

34. Transactions with Related Parties and Others

(1) Details of related parties as of December 31, 2021 are as follows:

Type	Name of related parties
Associates	Stratio, Inc., SK China Company Limited, Gemini Partners Pte. Ltd., TCL Fund, SK South East Asia Investment Pte. Ltd., Hushan Xinju (Chengdu) Venture Investment Center (Smartsource), Prume Social Farm, Co., Ltd, Wuxi xinfa IC industry park., Ltd., Magnus Private Investment Co., Ltd., Mirae Asset Committee Semiconductor No. 1 Startup Venture Private Equity Investment Co., Ltd. L&S (No.10) Early Stage Ⅲ Investment Association, SiFive Inc., YD-SK-KDB Social Value Ningbo Zhongxin Venture Capital Partnership (Limited Partnership) Jiangsu KVTS Semiconductor science and Technology Co Ltd.
Joint ventures	HITECH Semiconductor (Wuxi) Co., Ltd., Hystars Semiconductor (Wuxi) Co., Ltd. Specialized Investment-type Private Equity Investment Trust For Growth Of Semiconductor, Specialized Investment-type Private Equity Investment Trust For Win-win System Semiconductor
Other related parties	SK Square Co., Ltd., which has significant influence over the Group, and its subsidiaries, SK Holdings Co., Ltd., which has control over SK Square Co., Ltd., and its subsidiaries

34. Transactions with Related Parties and Others, Contiuned

(2) Significant transactions for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		For the year ended December 31, 2021				
	Company	Operating revenue and others	Operating expense and others	Asset acquisition	Dividend received	Borrowings[3]
Associate	SK China Company Limited	₩ 33	₩ 11,947	₩ -	₩ 56,650	₩ -
	Magnus PrivateInvestment Co.,Ltd	54,908	357	-	-	-
	Prume Social Farm, Co., Ltd.	-	4	-	-	-
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.	2,456	558,352	44,438	16,771	-
	Hystars Semiconductor (Wuxi) Co., Ltd.	219	21,858	9,233	-	78,819
Other related parties	SK Telecom Co., Ltd.[1]	133,903	199,520	11,163	-	-
	SK Holdings Co., Ltd.[2]	24,902	300,562	225,956	-	-
	ESSENCORE Limited	824,182	-	-	-	-
	SK Ecoplant Co.,Ltd. (former, SK Engineering & Construction Co., Ltd.)	30,069	266	1,981,424	-	-
	SK Energy Co., Ltd.	46,723	96,484	2,558	-	-
	SK Networks Co., Ltd.	6,763	8,721	10,210	-	-
	SKC Solmics Co., Ltd.	1,050	138,592	338	-	-
	Chungcheong energy service Co., Ltd.	54	28,807	-	-	-
	SK Materials Co., Ltd.	3,980	141,251	-	-	-
	SK Siltron Co., Ltd.	33,707	336,717	-	-	-
	SK Materials Airplus Inc.	823	128,039	-	-	-
	Techdream Co., Ltd.	-	130,229	-	-	-
	SK Tri Chem Co.,Ltd.	635	145,013	-	-	-
	SK Shieldus Co.,Ltd.	2,184	73,713	34,928	-	-
	SK Innovation Co., Ltd.	31,343	68,379	44	-	-
	SK Square Co.,Ltd.	-	167	-	-	-
	Others	147,643	281,611	50,325	-	-
		₩ 1,345,577	₩ 2,670,589	₩ 2,370,617	₩ 73,421	₩ 78,819

[1] Operating expense and others include dividend of ₩170,937 million paid.
[2] For the year ended December 31, 2021, royalty paid for the use of the SK brand amounted to ₩64,198 million.
[3] For the year ended December 31, 2021, borrowed from the Hystars Semiconductor(Wuxi) Co., Ltd.

34. Transactions with Related Parties and Others, Continued

(2) Significant transactions for the years ended December 31, 2021 and 2020 are as follows, Continued:

(In millions of Korean won)

		For the year ended December 31, 2020			
	Company	Operating revenue and others	Operating expense and others	Asset acquisition	Dividend received
Associate	SK China Company Limited	₩ 18	₩ 8,019	₩ -	₩ -
Joint venture	HITECH Semiconductor (Wuxi) Co., Ltd.	4,766	543,575	21,780	15,033
	Hystars Semiconductor (Wuxi) Co., Ltd.	168	-	-	-
Other related parties	SK Telecom Co., Ltd. [1]	135,050	166,019	82,044	-
	SK Holdings Co., Ltd. [2]	20,905	264,994	272,980	-
	ESSENCORE Limited	675,915	-	-	-
	SK Ecoplant Co.,Ltd. (former, SK Engineering & Construction Co., Ltd.)	42,814	8,507	1,375,083	-
	SK Energy Co., Ltd.	50,035	72,386	-	-
	SK Networks Co., Ltd.	6,638	9,434	526	-
	SKC Solmics Co., Ltd.	623	93,862	178	-
	Chungcheong energy service Co., Ltd.	118	24,335	-	-
	SK Materials Co., Ltd.	4,349	95,007	-	-
	SK Siltron Co., Ltd.	32,429	380,571	-	-
	SK Materials Airplus Inc.	13,220	75,990	110,858	-
	Others	173,971	631,656	65,385	-
		₩ 1,161,019	₩ 2,374,355	₩ 1,928,834	₩ 15,033

[1] Operating expense and others include dividend of ₩146,100 million paid.
[2] For the year ended December 31, 2021, royalty paid for the use of the SK brand amounted to ₩54,434 million.

The above related party transactions include transactions executed based on agreements executed in the course of the Group's business activities such as purchase or contruction of property, plant and equipment, procurements of gas and raw materials, and system developments and maintenance services.

34. Transactions with Related Parties and Others, Continued

(3) The balances from significant transactions as of December 31, 2021 and December 31, 2020 are as follows:

(In millions of Korean won)

		December 31, 2021	
	Company	**Trade receivables and others**	**Other payables and others [1]**
Associate	SK China Company Limited	₩ 2	₩ 11,360
	Magnus PrivateInvestment Co.,Ltd	806	5
	Prume Social Farm, Co., Ltd.	-	4
Joint ventures	HITECH Semiconductor (Wuxi) Co., Ltd.	23	427,476
	Hystars Semiconductor (Wuxi) Co., Ltd.[1]	33	185,585
Other related parties	SK Telecom Co., Ltd.	48,575	11,789
	SK Holdings Co., Ltd.	1,938	200,176
	ESSENCORE Limited	60,527	-
	SK Ecoplant Co.,Ltd. (former, SK Engineering & Construction Co., Ltd.)	3,216	1,185,318
	SK Energy Co., Ltd.	3,204	27,773
	SK Networks Co., Ltd.	256	10,493
	SKC Solmics Co., Ltd.	137	39,974
	Chungcheong energy service Co., Ltd.	10	5,742
	SK Materials Co., Ltd.	3	16,533
	SK Siltron Co., Ltd.	3,904	32,434
	SK Materials Airplus Inc.	13	376,050
	Techdream Co., Ltd.	-	5,835
	SK Tri Chem Co.,Ltd.	156	13,251
	SK Shieldus Co.,Ltd.	3,236	35,285
	SK Innovation Co., Ltd.	1,074	7,794
	SK Square Co.,Ltd.	-	167
	Others	26,765	59,789
		₩ 153,878	₩ 2,652,833

[1] Other payables and others include ₩ 78,819 million of borrowings.

34. Transactions with Related Parties and Others, Continued

(3) The balances from significant transactions as of December 31, 2021 and December 31, 2020 are as follows, Continued:

(In millions of Korean won)

	Company		December 31, 2020 Trade receivables and others [1]		Other payables and others
Associate	SK China Company Limited	₩	7	₩	8,771
Joint ventures	HITECH Semiconductor (Wuxi) Co., Ltd.		198		417,730
	Hystars Semiconductor (Wuxi) Co., Ltd.		7		-
Other related parties	SK Telecom Co., Ltd.		10,747		7,920
	SK Holdings Co., Ltd.		1,757		176,752
	ESSENCORE Limited		55,500		-
	SK Ecoplant Co.,Ltd. (former, SK Engineering & Construction Co., Ltd.)		3,397		592,630
	SK Energy Co., Ltd.		1,204		22,328
	SK Networks Co., Ltd.		289		1,712
	SKC Solmics Co., Ltd.		74		24,128
	Chungcheong energy service Co., Ltd.		69		3,295
	SK Materials Co., Ltd.		411		10,130
	SK Siltron Co., Ltd.[1]		44,847		36,792
	SK Materials Airplus Inc.		12		390,967
	Others		31,324		124,499
		₩	149,843	₩	1,817,654

[1] Trade receivable and others include ₩42,432 million of advance paid for the purchase of wafers .

34. Transactions with Related Parties and Others, Continued

(4) Key management compensation
The Group considers registered directors who have authority and responsibility for planning, directing and controlling the activities of the Group as key management. The compensation paid to key management for employee services for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

Details		2021		2020
Salaries	₩	5,133	₩	5,006
Defined benefit plan related expenses		640		545
Share-based payment		851		1,175
	₩	6,624	₩	6,726

(5) The significant transactions between the Group and the companies that are in the same conglomerate group according to '*Fair Trade Law*' for the years ended December 31, 2021 and 2020 are as follows. These entities are not related parties according to Korean IFRS 1024 *Related Party Disclosures*.

(In millions of Korean won) 2021

Name of entity		Operating revenue and others		Operating expense and others		Asset acquisition
SK Chemicals Co., Ltd.	₩	11,472	₩	1,192	₩	-
SK Bioscience Co., Ltd.		2,733		265		-
ANTS Co., Ltd.		4		12,679		22
SM Core Co., Ltd.		11		742		3,140
Korea Nexlene Company		4,797		-		-
Others		2,484		1,296		-
	₩	21,501	₩	16,174	₩	3,162

(In millions of Korean won) 2020

Name of entity		Operating revenue and others		Operating expense and others		Asset acquisition
SK Chemicals Co., Ltd.	₩	10,338	₩	1,465	₩	-
SK Bioscience Co., Ltd.		1,944		298		-
ANTS Co., Ltd.		4		8,179		-
SM Core Co., Ltd.		-		633		17,874
Korea Nexlene Company		4,099		-		-
Others		3,644		964		-
	₩	20,029	₩	11,539	₩	17,874

34. Transactions with Related Parties and Others, Continued

(6) The balances of significant transactions between the Group and the companies that are in the same conglomerate group designated by '*Fair Trade Law*' as of December 31, 2021, 2020 are as follows. These entities are not related parties according to Korean IFRS 1024 *Related Party Disclosures*.

(In millions of Korean won)	December 31, 2021	
Name of entity	**Trade receivables and others**	**Other payables and others**
SK Chemicals Co., Ltd.	₩ 1,135	₩ 95
SK Bioscience Co., Ltd	414	195
ANTS Co., Ltd.	1	12
SMCore. Inc	7	3,212
Korea Nexlene Company	182	-
Others	249	-
	₩ 1,988	₩ 3,514

(In millions of Korean won)	December 31, 2020	
Name of entity	**Trade receivables and others**	**Other payables and others**
SK Chemicals Co., Ltd.	₩ 789	₩ 115
SK Bioscience Co., Ltd	128	15
ANTS Co., Ltd.	1	542
SMCore. Inc	-	3,439
Korea Nexlene Company	157	-
Others	204	88
	₩ 1,279	₩ 4,199

(7) The right-of-use assets and lease liabilities recognized regarding the lease agreements with HITECH Semiconductor (Wuxi) Co., Ltd. and Hystars Semiconductor (Wuxi) Co., Ltd., a joint venture for the year ended December 31, 2021 amount to ₩52,895 million and ₩52,895 million, respectively, and lease payments to HITECH Semiconductor (Wuxi) Co., Ltd. and Hystars Semiconductor (Wuxi) Co., Ltd., amount to ₩127,530 million. The right-of-use assets and lease liabilities recognized regarding the lease agreements with other related parties including SK Airgas Co., Ltd. for the year ended December 31, 2021 amount to ₩16,708 million and ₩16,708 million, respectively, and lease payments to SK Airgas Co., amount to ₩42,904 million.

(8) The Group provides a payment guarantee amounting to RMB 696 million to Hystars Semiconductor (Wuxi) Co., Ltd., a joint venture (Note 35-(6)).

(9) The establishment of the subsidiary is explained in Note 1, and the acquisitions and additional investments of associates and joint ventures are explained in Note 11.

(10) On June 30, 2021, the Group signed an agreement with SK REIT Co., Ltd. on the preferred purchase regarding the sale and lease of real estate held by the Group. In accordance with this agreement, the Group will grant a preferred purchase right to SK REIT Co., Ltd. if the Group intends to dispose of the real estate to a third party or if SK REIT Co., Ltd. requests negotiation for preferred purchase and the Group accepts. The preferred purchase right is to negotiate the purchase of real estate in preference to a third party and the lease to the Group. The exercise of the preferred purchase right will expire within three years from the date of the agreement, and if a sales and lease agreement could not be signed within six months from the date of exercise of the preferred purchase right, the right may be lost.

35. Commitments and Contingencies

(1) Significant pending litigations and claims of the Group as of December 31, 2021 are as follows:

(a) Lawsuit from Netlist, Inc. ("Netlist")
Netlist filed lawsuits against the Parent Company and its subsidiaries, SK hynix America Inc. and SK hynix memory solutions America Inc., with the U.S. District Court for the Central District of California on August 31, 2016 and June 14, 2017, and filed a lawsuit against the Parent Company and its subsidiary, SK hynix America Inc., with the U.S. District Court for the Western District of Texas on March 17, 2020 and June 15, 2020 for infringement of U.S. patent of Netlist.

During the year ended December 31, 2021, Netlist and the Group jointly filed an application for withdrawal of a patent infringement suit on March 30, 2021 filed with the California Central District Court and the lawsuit was finalized on April 2, 2021.

In addition, Netlist and the Group and its subsidiaries jointly submitted an application to withdraw the lawsuit for infringement of patent to the Western District Court of Texas on April 20, 2021. The lawsuit was finalized on May 10, 2021 as the Western District Court of Texas finally approved it.

(b) Price-fixing class action lawsuits in North America
On April 27, 2018, a class action lawsuit against the Parent Company and its subsidiary, SK hynix America Inc., for price fixing by major DRAM companies (period from June 1, 2016 to February 1, 2018) was filed with the U.S. District Court for the Northern District of California. Similar class action lawsuits have been filed with the U.S. District Court for the Northern District of California, the Supreme Court of British Columbia, the Quebec District Court, the Ontario Federal and District Court. In December 2020 and September 2021, the U.S. District Court for the Northern District of California ruled dismissal all lawsuits filed by direct purchasers and indirect purchasers in the United States, and in June 2021 and November 2021, the Quebec District Court in Canada and the Ontario Federal Court decided to dismiss the lawsuits filed by the group of buyers in Canada, but the plaintiffs in the United States and Canada later filed for an appeal. Meanwhile, on March 7, 2022, after the end of the current reporting period, the U.S. 9th Federal Court of Appeals dismissed the complaint filed by indirect buyers in the United States and maintained the decision to dismiss from the first trial. The appeals by direct buyers in the United States 9th Federal Court of Appeals and appeals in the Quebec District Court and Ontario Federal Court of Appeals are still in the progress.

(c) The antitrust investigation in China
The State Administration for Market Regulation of China initiated to investigate the violation of the antitrust law regarding on primary DRAM businesses' sales in China in May 2018, and the investigation has been started. The pending case currently is under investigation. As of December 31, 2021, the Group cannot predict the outcome of these investigation.

(d) Other patent infringement claims and litigation
In addition to the above litigations, the Group has responded to various disputes related to intellectual property rights and recognizes liabilities when it represents a present obligation as a result of past event and it is probable that an outflow of resources will arise and a loss can be reliably estimated.

35. Commitments and Contingencies, Continued

(2) Contract for supply of industrial water
The Group has entered into a re-newal contract with Veolia Water Industrial Development Co., Ltd. ("Veolia") under which the Group purchases industrial water from Veolia during the period of June 2018 through May 2023. According to the contract, the Group is obligated to pay base service charges, which are predetermined and additional service charges which are variable according to the amount of water used.

(3) Back-end process service contract with HITECH Semiconductor (Wuxi) Co., Ltd. (“HITECH”)
The Group has entered into an agreement with HITECH to be provided with back-end process service by HITECH. The conditions of the service provided includes package, package test, modules and others. According to the agreement, the Group is liable to guarantee a certain level of margin to HITECH as the Group has priority to use HITECH’s equipment.

(4) Assets provided as collateral

Details of assets provided as collateral as of December 31, 2021 are as follows:

(In millions of Korean won and millions of foreign currencies)

Category	Book value		Pledged amount			Remark
	Currency	Amount	Currency	Amount in USD	Amount in KRW	
Land and buildings	KRW	162,704	USD	134	158,600	Borrowings for equipment and others
			KRW	-	14,854	
Machinery	KRW	4,468,400	USD	5,527	6,552,057	
			KRW	-	660,000	
			USD	5,661	6,710,657	
	KRW	4,631,104	KRW	-	674,854	

(In millions of Korean won and millions of foreign currencies)

Category	Book value		Collateral liabilities amount			Remark
	Currency	Amount	Currency	Amount in USD	Amount in KRW	
Land and buildings	KRW	162,704	USD	7	8,113	Borrowings for equipment and others
			KRW	-	5,105	
Machinery	KRW	4,468,400	USD	2,870	3,402,950	
			KRW	-	475,000	
			USD	2,877	3,411,063	
	KRW	4,631,104	KRW	-	480,105	

35. Commitments and Contingencies, Continued

(5) Financing agreements

Details of credit lines with financial institutions as of December 31, 2021 are as follows:

(In millions of Korean won and millions of foreign currencies)

	Financial Institution	Commitment	Currency	Amount
The Parent Company	Hana Bank and others	Import finance including usance	USD	420
		Comprehensive limit contract for import and export including usance	USD	1,070
		Overdrafts with banks	KRW	20,000
		Accounts receivable factoring contracts which have no right to recourse	KRW	70,000
SK hynix Semiconductor (China) Ltd.	Agricultural Bank of China and others	Import finance including usance	RMB	950
			USD	490
SK hynix America Inc. and other sales entities	Citibank and others	Accounts receivable factoring contracts which have no right to recourse	USD	942
Domestic subsidiaries	Hana Bank and others	Import finance including usance	USD	45

35. Commitments and Contingencies, Continued

(6) Details of guarantees provided to others as of December 31, 2021 are as follows:

(In millions of foreign currencies)	Currency	Amount	Remark
Wuxi Xinfa Group Co., Ltd. [1]	RMB	696	Guarantees for borrowing

[1] The Group provides a payment guarantee to Wuxi Xinfa Group Co., Ltd. for borrowings of Hystars Semiconductor (Wuxi) Co., Ltd., a joint venture of the Group.

(7) Capital commitments
The Group's unrecorded commitments in relation to the capital expenditures on property, plant and equipment and intangible assets as of December 31, 2021 are ₩13,846,585 million (as of December 31, 2020: ₩3,404,386 million).

(8) Investment in KIOXIA Holdings Corporation ("KIOXIA")
In regard to the Group's interests in KIOXIA through its investments in BCPE Pangea Intermediate holdings Cayman, L.P. and BCPE Pangea Cayman2 Limited, equity shares in KIOXIA owned, directly or indirectly, by the Group are limited to a certain percentage during certain periods after the date of acquisition. In addition, during the same periods, the Group does not have the right in appointing KIOXIA's directors and is unable to exercise significant influence over decision-making for KIOXIA's operations and management.

(9) Acquisition of the Intel NAND business
The Group has entered into a master purchase agreement with Intel Corporation ("Intel") to acquire the entire NAND business of Intel excluding the Optane division of Non-Volatile Memory Solutions Group during the year ended December 31, 2020. Pursuant to the terms and conditions of the master purchase agreement, the entire business with assets and liabilities attributable to the business shall be transferred in two separate processes through subsidiaries that newly established overseas, and payment shall be made in two installments. Total purchase consideration of US$ 8,880 million shall be paid with the first installment of US$ 6,109 million which was paid in the current year ended December 31, 2021 as part of the first deal closing and the second installment of US$ 2,771 million shall be paid by March 2025 as part of the second deal closing. The second deal closing of the business transfer depends on the satisfaction of an agreed upon set of conditions that include regulatory approvals of governmental authorities and the agreed termination fee shall be paid when the contract is terminated under certain circumstances. However, the Group believes that the possibility that the second deal closing will not be completed is low.

In the process of obtaining a conditional business combination approval for the Intel NAND business acquisition from the Chinese competition authority (Chinese State Administration for Market Regulation) in connection with the first closing of the Intel NAND business completed at the end of the current year, the Group was imposed with certain conditions, mainly including the obligation to maintain a reasonable pricing policy and increase production and to support the entry of third-party competitors into the Chinese eSSD market over the next five years.Therefore, the Group must comply with these obligations for the next five years and may apply to waive them after five years. If the Group makes such an application, the Chinese competition authorities will decide whether to accept the application in consideration of the competition in the Chinese eSSD market.

35. Commitments and Contingencies, Continued

(10) Contracts for corporate purchasing card

The Group signed contracts for corporate purchasing card with financial institutions for paying electricity bills. The Group pays the payment to the credit card companies at the end of the credit period stipulated in the contracts and the balance of the payables to the credit card comapanies as of December 31, 2021 is ₩355,618 million.

(11) Share purchase agreement for the acquisition of Key Foundry Co., Ltd.

The Group entered into a share purchase agreement with Magnus Semiconductor, LLC to acquire 100% shares of Key Foundry Co., Ltd. on October 29, 2021. When this transaction is closed, the Group will acquire entire shares (100%) of Key Foundry Co., Ltd. Currently owned by Magnus Semiconductor, LLC, and the purchase price will be ₩575,800 million. The purchase price can be adjusted by the net assets and business activities of Key Foundry Co., Ltd. The termination and timing of the transaction may vary depending on whether the prerequisites set in the contract are fulfilled, including the approvals from domestic and foreign government agencies and whether the reasons for cancellation occur.

36. Cash Flows

(1) Reconciliations between profit for the period and cash generated from operations for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Profit for the year	₩	9,616,188	₩	4,758,914
Adjustment				
Income tax expense		3,799,799		1,478,123
Defined benefit plan		252,675		251,552
Depreciation		9,536,696		8,515,134
Depreciation of investment property		1,773		291
Amortization		795,933		960,550
Depreciation of right-of-use assets		324,096		296,218
Share-based compensation expenses		2,491		1,591
Loss on disposal of property, plant and equipment		12,324		44,955
Loss on disposal of intangible assets		3,890		4,841
Loss on impairment of intangible assets		43,792		16,544
Loss on disposal of short-term investment assets		125		-
Loss on valuation of long-term investment asset		3,402		7,273
Loss on valuation of financial liabilities		1,716		1,681
Interest expense		259,960		253,468
Loss on foreign currency translation		509,386		375,504
Loss on disposal of trade receivables		5,462		6,320
Gain(loss) on equity method investments, net		(162,280)		36,279
Gain on disposal of property, plant and equipment		(71,681)		(38,585)
Gain on disposal of intangible assets		-		(122)
Gain on disposal of short-term investment assets		(48,595)		(27,510)
Gain on valuation of short-term investment assets		(7,366)		(2,592)
Gain on disposal of long-term investment assets		(33,342)		-
Gain on valuation of long-term investment assets		(527,811)		(1,741,026)
Interest income		(22,419)		(27,872)
Gain on foreign currency translation		(448,324)		(595,266)
Gain on transaction or valuation of derivatives, net		(34,546)		-
Others, net		156,496		(9,646)
Changes in operating assets and liabilities				
Increase in trade receivables		(2,525,722)		(935,346)
Decrease(increase) in loans and other receivables		(2,938)		5,303
Increase in inventories		(696,559)		(843,842)
Decrease (increase) in other assets		(194,397)		47,350
Increase (decrease) in trade payables		(197,980)		222,036
Increase(decrease) in other payables		374,102		(6,583)
Increase in other non-trade payables		771,169		158,514
Increase in provisions		6,092		12,008
Increase in other liabilities		90,495		46,961
Payment of defined benefit liabilities		(928)		(585)
Contributions to plan assets		(641,696)		(355,664)
Cash generated from operating activities	₩	20,951,478	₩	12,916,771

36. Cash Flows, Continued

(2) Details of significant transactions without inflows and outflows of cash for the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Increase in other payables related to acquisition of property, plant and equipment	₩	2,805,789	₩	1,938,446
Transfer of property, plant and equipment to investment property		-		209,450
Transfer of investment property to property, plant and equipment		43,295		-

(3) Changes in liabilities arising from financing activities during the years ended December 31, 2021 and 2020 are as follows:

(In millions of Korean won)

		2021		2020
Beginning balance	₩	12,895,364	₩	12,190,505
Cash flows from financing activities				
Proceeds from borrowings		8,933,737		5,173,016
Repayments of borrowings		(3,320,911)		(3,921,310)
Payments of lease liabilities		(323,975)		(319,740)
Increase of lease liabilities		90,469		293,855
Foreign currency differences		792,563		(557,923)
Present value discount (interest expense)		91,784		43,885
Interest paid		(9,460)		(6,924)
Ending balance	₩	19,149,571	₩	12,895,364

(4) The Group presented the inflow and outflow of cash from short-term investment assets and related investments in subsidiaries related to MMT, which are frequently traded and have a large total amount and mature in a short period of time, as net increases and decreases.

37. Share-based Payment

(1) The Parent Company granted equity-settled share options to the Parent Company's key management during the year ended December 31, 2021 and the details of the share options as of December 31, 2021 are as follows:

(In shares)

	Total numbers of share option granted	Forfeited or Cancelled	Exercised	Outstanding at December 31, 2021
1st	99,600	-	-	99,600
2nd	99,600	-	-	99,600
3rd	99,600	-	-	99,600
4th	7,747	-	7,747	-
5th	7,223	-	-	7,223
6th	8,171	8,171	-	-
7th	61,487	-	-	61,487
8th	61,487	-	-	61,487
9th	61,487	-	-	61,487
10th	54,020	-	-	54,020
11th	6,397	-	-	6,397
12th	6,469	-	-	6,469
13th	75,163	-	-	75,163
	648,451	8,171	7,747	632,533

	Grant date	Service Period for Vesting	Exercisable Period	Exercise price (in Korean won)
1st	March 24, 2017	March 24, 2017 - March 24, 2019	March 25, 2019 - March 24, 2022	48,400
2nd	March 24, 2017	March 24, 2017 - March 24, 2020	March 25, 2020 - March 24, 2023	52,280
3rd	March 24, 2017	March 24, 2017 - March 24, 2021	March 25, 2021 - March 24, 2024	56,460
4th	January 1, 2018	January 1, 2018 - December 31, 2019	January 1, 2020 - December 31, 2022	77,440
5th	March 28, 2018	March 28, 2018 - March 28, 2020	March 29, 2020 - March 28, 2023	83,060
6th	February 28, 2019	February 28, 2019 - February 28, 2021	March 1, 2021 - February 29, 2024	73,430
7th	March 22, 2019	March 22, 2019 - March 22, 2021	March 23, 2021 - March 22, 2024	71,560
8th	March 22, 2019	March 22, 2019 - March 22, 2022	March 23, 2022 - March 22, 2025	77,290
9th	March 22, 2019	March 22, 2019 - March 22, 2023	March 23, 2023 - March 22, 2026	83,470
10th	March 20, 2020	March 20, 2020 - March 20, 2023	March 21, 2023 - March 20, 2027	84,730
11th	March 20, 2020	March 20, 2020 - March 20, 2023	March 21, 2023 - March 20, 2027	84,730
12th	March 30, 2021	March 30, 2021 - March 30, 2023	March 31, 2023 - March 30, 2026	136,060
13th	March 30, 2021	March 30, 2021 - March 30, 2023	March 31, 2023 - March 30, 2026	136,060

37. Share-based Payment, Continued

(2) Measurement of fair value
The compensation cost is calculated by applying a binomial option-pricing model in estimating the fair value of the option at each grant date. The inputs used are as follows:

	1st	2nd	3rd	4th	5th	6th	7th
Expected volatility	23.23%	23.23%	23.23%	22.50%	25.30%	25.60%	26.17%
Estimated fair value of share option (in Korean won)	10,026	9,613	9,296	16,687	18,362	16,505	17,744
Dividend yield ratio	1.20%	1.20%	1.20%	0.78%	1.23%	1.36%	1.98%
Risk free ratio	1.86%	1.95%	2.07%	2.38%	2.46%	1.89%	1.82%

	8th	9th	10th	11th	12th	13th
Expected volatility	26.17%	26.17%	26.15%	26.15%	35.50%	35.50%
Estimated fair value of share option (in Korean won)	16,888	16,093	11,786	11,786	39,995	39,995
Dividend yield ratio	1.98%	1.98%	2.10%	2.10%	0.70%	0.70%
Risk free ratio	1.88%	1.91%	1.59%	1.59%	1.55%	1.55%

(3) The compensation expense for the year ended December 31, 2021 was ₩2,491 million (2020: ₩1,591 million).

38. Business Combinations

(1) Details of business combinations during the year ended December 31, 2021 are as follows:

(a) The Group has entered into a master purchase agreement to acquire the Intel NAND business during the previous year and, under the terms and conditions of the agreement, certain part of the business was transferred to the Group upon the first deal closing consumated on December 29, 2021. The remainder part of the business ("the remainder business") will be transferred to the Group upon the second deal closing expected to occur in March 2025. Therefore, as of the end of the reporting period, Intel Corporation, the seller, continues to hold legal ownership of the remainder business expected to be transferred to the Group upon the second deal closing, and the Group will acquire relevant legal ownership then. Meanwhile, the Group determined that it has control over the remainder business as well as the other business already obtained legal ownership upon first closing because it has the power to direct relevant activities of the remainder business and is exposed to variable returns, so the remainder business is included in the assets acquired and liabilities assumed by the Group during the current year together with the other part of business transferred to the Group upon the first deal closing. Therefore, the purchase consideration scheduled to be paid in connection with the second closing is recognized as liability on the consolidated statements of financial position.

(b) Details of consideration transferred and identifiable assets acquired and liabilities assumed as of acquisition date are as follows:

(In millions of Korean won)

		December 31, 2021
Consideration transferred	₩	
Cash and cash equivalents		7,250,087
Other payables		713,977
Long-term other payables		2,448,370
		10,412,434
Identifiable assets acquired and liabilities assumed[1]		
Inventories		1,952,385
Property, plant and equipment		6,852,840
Intangible assets		727,973
Other assets		110,672
Other liabilities		61,046
Identifiable net assets		9,582,824
Goodwill	₩	829,610

[1] As of the date of approval of issuance of the consolidated financial statements, the initial accounting processing for the business combination has not been completed, and the fair value of the assets acquired and the liabilities assumed on the date of acquisition due to the business combination has been determined by the provisional amount.

(2) Profit or loss before the acquisition

If the acquisition of NAND business division of Intel Corporation had been completed on January 1, 2021, the Group's revenue and operating profit for the year would have been ₩47,925,665 million and ₩ 12,974,539 million, respectively.

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