

SAMSUNG

SAMSUNG ELECTRONICS Co., Ltd.

2022 Half-year Business Report

For the quarter ended June 30, 2022

Certain statements in the document, other than purely historical information, including estimates, projections, statements relating to our business plans, objectives and expected operating results, and the assumptions upon which those statements are based, are “forward-looking statements.” Forward-looking statements are based on current expectations and assumptions that are subject to risks and uncertainties which may cause actual results to differ materially from the forward-looking statements. A detailed discussion of risks and uncertainties that could cause actual results and events to differ materially from such forward-looking statements is included in our financial reports available on our website.

See, also, 『Note on Forward-Looking Statements』 in preamble of 『II. Businesses Overview』.

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Certification

Letter of Certification

We, Jong-hee Han and Hark-kyu Park, as a CEO and the executive in charge of reporting, respectively, certify that we have thoroughly reviewed the half-year business report of Samsung Electronics Co., Ltd. for the six-month period ended June 30, 2022.

Based on our knowledge, this report does not contain any untrue statements of material facts or omit any material facts; and it does not contain any statements that are intentionally misleading for the users of the information in the report.

We confirm that Samsung Electronics operates the Internal Controls over Financial Reporting, as defined in Article 8 of the Act on External Audit of Stock Companies.

Date: August 16, 2022

Jong-hee Han



Vice Chairman and CEO
Samsung Electronics Co., Ltd.

Executive responsible for reporting: Hark-kyu Park



President and CFO
Samsung Electronics Co., Ltd.

I. Corporate Overview

1. Overview

A. Legal, commercial name:

- Samsung Electronics Co., Ltd.

B. Date of establishment:

- Samsung Electronics Co., Ltd. (“SEC” or “the Company”) was established as Samsung Electronics Industry Co., Ltd. on January 13, 1969, and held an initial public offering on June 11, 1975.
- SEC changed its name from Samsung Electronics Industry Co., Ltd. to Samsung Electronics Co., Ltd. following a resolution passed at the Annual General Meeting (AGM) of shareholders on February 28, 1984.

C. Address, phone number, and English language website of the corporate headquarters

- Address: 129, Samsung-ro, Yeongtong-gu, Suwon, Gyeonggi-do, Korea
- Phone Number: +82-31-200-1114
- Website: <https://www.samsung.com/sec>

D. Core businesses

- The Company (defined below) is comprised of two business divisions – DX (Device eXperience) and DS (Device Solutions) – SDC (Samsung Display and its subsidiaries), which runs display panel business, and Harman (Harman International Industries, Inc. and its subsidiaries), which operates businesses related to automotive electronics components, etc.

SEC is a global electronics firm consisting of its headquarters in Korea and 233 subsidiaries (collectively, “Samsung Electronics”, the “Company”, or “we”) across the world, including 9 regional headquarters for the DX Division, 5 regional headquarters, as well as production and sales subsidiaries, for the DS Division, and subsidiaries of SDC and Harman.

Key products by each organization are set forth below:

Organization	Key products
DX Division	TVs, monitors, refrigerators, washing machines, air conditioners, hand held products (HHPs), telecommunications network systems, computers, etc.
DS Division	DRAM, NAND flash, mobile APs, etc.
SDC	OLED panels for smartphones, etc.
Harman	Digital cockpits, telematics, speakers, etc.

In December 2021, the Company merged the CE and IM Divisions to create the DX Division; and it separated SDC and the DS Division to align with the corporate organizational structure.

[DX Division]

The DX Division manufactures TVs, monitors, refrigerators, washing machines, air conditioners, smartphones, tablets, and wearables. It is leading the global digital market with its differentiated technology, designs, and products, including premium TVs based on leading technologies such as Neo QLED; Lifestyle TVs that align with the lifestyles of customers who value experiences; and Bespoke products, which are customized to satisfy various needs of our customers. The Company has maintained its position as the market leader in the TV market for 16 straight years. Moreover, for smartphones, a core product of the Division, we have developed a broad lineup ranging from low-end right through to premium models with the Galaxy series. Samsung will continue to innovate in the premium and Lifestyle TV markets while strengthening global sales of Bespoke products.

Through the Galaxy Ecosystem, we will deliver top-notch Multi-Device experiences, allowing convenient and seamless use of not just mobile products, but also TV and home appliance products. At the same time, we will keep fortifying our status and market dominance as a global brand by continually releasing new products that reflect the needs of consumers and current trends; and we will lead the global 5G market based on our end-to-end solutions, which encompass handsets, chipsets, as well as our experience in commercializing initial 5G markets.

[DS Division]

The Memory Business, System LSI Business, Foundry Business, and Display Panel (“DP”) Business make up the DS Division. The Memory Business manufactures and sells DRAM and NAND products; the System LSI Business designs and sells mobile application processors (“mobile APs” or “APs”) and camera sensor chips; and the Foundry Business is in charge of consignment production of semiconductors.

The Memory Business continues to maintain its position at the top of the global memory market by focusing on qualitative growth, including by applying advanced process technology in DRAM and NAND Flash products; differentiating our products via centering our business portfolio on high-value solutions; and enhancing cost competitiveness.

The System LSI Business has not been complacent, extending its focus from mobile to include automotive chips, and it is expanding its market power through actions such as satisfying demand with differentiated products—such as APs and CISs—based on its advanced manufacturing process technology, and by diversifying foundry suppliers.

The Foundry Business is expanding by securing competitiveness via adopting core technologies and new structures in advanced processes, securing supply continuity of semiconductors amid global supply shortage and actively addressing continued strong demand for legacy processes.

[SDC]

In SDC, the mobile panel business’s differentiated technology is a key factor behind the increased adoption of OLED panels, while our release of products in new applications—such as foldable devices, rollable devices, and automotives—has expanded the overall market. Meanwhile, the large panel business is focusing on premium products such as high-definition, ultra-large, Quantum Dot TVs and is enhancing its competitiveness through continuous improvements in technology and productivity.

[Harman]

Harman consists of the automotive component business, which designs and develops connected products and solutions for automakers; and the lifestyle audio business, which provides consumer audio products and professional audio solutions. Harman, as a leader in the automotive component market, supplies car manufacturers with products that apply innovative technologies. And in the audio market, it has been firmly establishing the brand reputation among consumers and audiophiles. Harman has established an internationally renowned brand and it offers diverse product lines, using internal development and strategic acquisitions to strengthen competitiveness in each business area.

☞ See 『II. Businesses Overview』 for more details about each Division.

E. Subsidiaries subject to consolidated accounting (summary)

As of June 30, 2022, and in accordance with Korean International Financial Reporting Standards (K-IFRS) 1110, *Consolidated Financial Statements*, Samsung Electronics, the controlling company, had 233 consolidated subsidiaries, with

the addition of 6 subsidiaries and reduction of 1 subsidiary when compared to totals as of December 31, 2021.

Classification	Number of subsidiaries subject to consolidated accounting				Number of major subsidiaries
	As of January 1, 2022	Added	Removed	As of June 30, 2022	
Listed	-	-	-	-	-
Unlisted	228	6	1	233	141
Total	228	6	1	233	141

See 『Appendix-1. Subsidiaries subject to consolidated accounting (detailed)』 for details.

[1H22: Changes in subsidiaries subject to consolidated accounting]

Classification	Subsidiary	Reason
Newly consolidated	Samsung R&D Institute Ukraine (SRUKR)	Establishment
	Samsung Electronics Uzbekistan Ltd. (SEUZ)	Establishment
	Apostera Gmbh	Acquisition of shares
	Apostera UA, LLC	Acquisition of shares
	DOWOOINSYS VINA COMPANY LIMITED	Establishment
	Red Brick Lane Marketing Solutions Pvt. Ltd.	Acquisition of shares
No longer consolidated	AMX UK Limited	Liquidation

F. Whether the Company is an SME

The Company is not subject to Article 2 of the Framework Act on Small and Medium Enterprises.

Small and medium enterprise	No
Venture company	No
Medium-sized enterprise	No

G. Credit rating

SEC's credit rating is assessed by two external credit ratings agencies. As of June 30, 2022, SEC's credit ratings were Aa3 with a stable investment outlook as rated by Moody's (US); and AA- with a stable investment outlook as rated by S&P (US).

Securities	Date	Ratings	Credit rating agency	Note
Corporate bond (USD denominated; issued in 1997 and expire in 2027)	Jul 2020	AA-	S&P	Regular review
	Sep 2020	Aa3	Moody's	
	Jul 2021	AA-	S&P	
	Aug 2021	Aa3	Moody's	

Credit rating range: Moody's (Aaa-C), S&P (AAA-D)

[Credit ratings definitions]

	Moody's	Definition	S&P	Definition
Investment grade	Aaa	Superior ability to repay debt obligations; lowest level of credit risk	AAA	Extremely strong ability to meet financial commitments; highest rating
	Aa1/Aa2/Aa3	High ability to repay debt obligations; very low credit risk	AA+/AA/AA-	Very strong capacity to meet financial commitments
	A1/A2/A3	Upper-medium ability to repay debt obligations; low credit risk	A+/A/A-	Strong capacity to meet financial commitments; susceptible to adverse effects of changes in economic conditions
	Baa1/Baa2/Baa3	Medium ability to repay debt obligations; moderate credit risk, speculative factors	BBB+/BBB/BBB-	Adequate capacity to meet financial commitments; relatively more susceptible to adverse economic conditions
Speculative grade	Ba1/Ba2/Ba3	Speculative; substantial credit risk	BB+/BB/BB-	Major ongoing uncertainties; exposure to adverse business, financial, or economic conditions can impair ability to meet financial commitments
	B1/B2/B3	Speculative; high credit risk	B+/B/B-	More vulnerable to nonpayment than those rated BB; has capacity to meet financial commitments but adverse financial or economic conditions are likely to impair ability to continue doing so
	Caa	Speculative; very high credit risk	CCC	Vulnerable to nonpayment; dependent upon favorable business, financial, and economic conditions
	Ca	Highly speculative; likelihood of being in or near default; some prospect for recovery of principal and interest	CC	Highly vulnerable to nonpayment; default has not yet occurred but expected to be a virtual certainty
	C	Typically in default; little prospect for recovery of principal or interest	C	Highly vulnerable to nonpayment; obligation is expected to have lower ultimate recovery vis-à-vis higher rated obligations
				D

Please refer to 『III. Financial Affairs-7. Matters about financing through the issuance of securities』 for credit ratings on corporate bonds and commercial paper issued by the Company's subsidiaries.

H. Whether the Company is listed (or registered or designated) and matters related to special listed companies

The Company listed on the Korea Stock Exchange on June 11, 1975.

Listed (or registered or designated)	Date listed (or registered or designated)	Special listed company	Subject to regulations for special exception companies
Stock market (KOSPI)	June 11, 1975	No	No

2. Company history

A. Company history

Jan 13, 1969	Samsung Electronics Manufacturing Incorporated
Jun 11, 1975	Listed on the Korea Stock Exchange
Feb 28, 1984	Renamed as Samsung Electronics
Nov 1, 1988	Merged with Samsung Semiconductor and Communications
Apr 1, 2012	Spun off the LCD division (established Samsung Display)
Mar 5, 2017	Released advanced Quantum dot-based QLED TV
Mar 10, 2017	SEA acquired shares of Harman International Industries, Inc. (100%)
Jul 4, 2017	Started operations at semiconductor production fab in Pyeongtaek, the largest such facility in the world
Nov 1, 2017	Sold Printing Solution business
Aug 30, 2018	Launched QLED 8K TVs with Quantum Dot technology
Apr 3, 2019	Launched Galaxy S10 5G, a 5G smartphone
Jun 4, 2019	Released Bespoke, a refrigerator customized to customers' lifestyles
Sep 4, 2019	Unveiled Exynos 980, 5G mobile processor
Sep 6, 2019	Unveiled Galaxy Fold, a foldable phone with a new form factor
Jan 29, 2020	Launched AI-technology-based Grande AI washer/dryer
Feb 4, 2020	Launched world's first ultra-high speed DRAM for AI and next-generation super computers
Feb 11, 2020	Unveiled Galaxy Z Flip, a foldable model with a new form factor
Aug 30, 2020	Started operation of Pyeongtaek Line 2, the world's largest semiconductor line
Jan 7, 2021	Unveiled Neo QLED TV
May 11, 2021	Announced expansion to the global market for Bespoke Home
Jun 3, 2021	Received certification for reducing carbon emissions, water use, and waste discharge for all of our semiconductor worksites, a first in the global semiconductor industry
Aug 11, 2021	Unveiled Galaxy Z Fold 3 and Galaxy Z Flip 3
Oct 12, 2021	Started mass producing the industry's most advanced 14-nano EUV DDR5 DRAM
Nov 9, 2021	Developed industry's first LPDDR5X DRAM
Nov 24, 2021	Announced investment in a new foundry production site in Taylor, Texas, USA
Feb 10, 2022	Unveiled the Galaxy S22 series
Feb 17, 2022	Unveiled the Bespoke Infinite Line
Jun 30, 2022	Began mass producing the world's first 3-nano GAA chips

B. Company location and changes

The Company's head office is located at 129, Samsung-ro, Yeongtong-gu, Suwon, Gyeonggi-do. There were no changes in the Company's head office location over the past five fiscal years.

C. Important changes in management executives

As of June 30, 2022, SEC's Board consisted of five Executive Directors (Jong-hee Han, Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park and Jung-bae Lee) and four Independent Directors (Han-jo Kim, Sun-uk Kim, Jeong Kim and Jun-sung Kim).

Date of change	Type of shareholder meeting	Appointed		Terms expired or dismissed
		Newly appointed	Reappointed	
Mar 23, 2018	AGM	Executive Director Sang-hoon Lee Executive Director Ki-nam Kim Executive Director Hyun-suk Kim Executive Director Dong-jin Koh Independent Director Jeong Kim Independent Director Sun-uk Kim Independent Director Byung-gook Park	-	Executive Director Oh-hyun Kwon Executive Director Boo-keun Yoon (resigned) Executive Director Jong-kyun Shin (resigned) Independent Director Han-joong Kim Independent Director Byeong-gi Lee
Mar 23, 2018	-	CEO Ki-nam Kim CEO Hyun-suk Kim CEO Dong-jin Koh	-	-
Mar 20, 2019	AGM	Independent Director Han-jo Kim Independent Director Curie Ahn	Independent Director Jae-wan Bahk	Independent Director In-ho Lee Independent Director Kwang-soo Song
Oct 26, 2019	-	-	-	Executive Director Jae-yong Lee
Feb 14, 2020	-	-	-	Executive Director Sang-hoon Lee (resigned)
Mar 18, 2020	AGM	Executive Director Jong-hee Han Executive Director Yoon-ho Choi	-	-
Mar 17, 2021	AGM	-	Executive Director Ki-nam Kim Executive Director Hyun-suk Kim Executive Director Dong-jin Koh Independent Director Byung-gook Park Independent Director Jeong Kim Independent Director Sun-uk Kim	-
Mar 17, 2021	-	-	CEO Ki-nam Kim CEO Hyun-suk Kim CEO Dong-jin Koh	-
Dec 31, 2021	-	-	-	Executive Director Yoon-ho Choi (resigned)
Feb 15, 2022	-	CEO Jong-hee Han	-	CEO Ki-nam Kim (resigned) CEO Hyun-suk Kim (resigned) CEO Dong-jin Koh (resigned)
Mar 16, 2022	AGM	Executive Director Kye-hyun Kyung Executive Director Tae-moon Roh Executive Director Hark-kyu Park Executive Director Jung-bae Lee Independent Director Wha-jin Han Independent Director Jun-sung Kim	Independent Director Han-jo Kim	-
Mar 16, 2022	-	-	-	Executive Director Ki-nam Kim (resigned) Executive Director Hyun-suk Kim (resigned) Executive Director Dong-jin Koh (resigned)
Mar 16, 2022	-	CEO Kye-hyun Kyung	-	-

Date of change	Type of shareholder meeting	Appointed		Terms expired or dismissed
		Newly appointed	Reappointed	
Mar 19, 2022	-	-	-	Independent Director Jae-wan Bahk Independent Director Curie Ahn
Apr 20, 2022	-	-	-	Independent Director Wha-jin Han (resigned)
May 17, 2022	-	-	-	Independent Director Byung-gook Park (position vacated)

D. Changes in the major shareholder

The major shareholder changed to Samsung Life Insurance as the shares of the previous major shareholder were inherited by beneficiaries on April 29, 2021.

[As of June 30, 2022]

Date of Change	Name of major shareholder	Number of shares owned	Share ratio	Reason for change	Note
Apr 29, 2021	Samsung Life Insurance	1,263,050,053	21.16%	Shares of the previous major shareholder were inherited by beneficiaries	-

Number of shares owned and share ratio are the sum of those of major shareholder and its related parties, and the number of shares is based on shares with voting rights (including those with limited voting rights in accordance with relevant laws).

☞ Please refer to 『VII. Information on Shareholders』 for details on the major shareholder.

E. Company name changes

In 2018, Harman Connected Services Finland OY, and Harman Professional Singapore Pte. Ltd changed their names to Harman Finland Oy, and Harman Singapore Pte. Ltd., respectively.

In 2019, Samsung Electronics Greece S.A. (SEGR) changed its name to Samsung Electronics Greece S.M.S.A. (SEGR).

In 2021, Samsung Electronics Portuguesa S.A. (SEP) changed its name to Samsung Electronics Portuguesa, Unipessoal, Lda. (SEP).

☞ Details are for SEC and major subsidiaries of SEC. See 『1. Subsidiaries subject to consolidated accounting (detailed)』 in 『XII. Appendix』 for details.

F. Mergers and acquisitions

In 2018, Samsung Electronics America, Inc. merged with Samsung Pay, Inc.; and Harman Connected Services, Inc. merged with Harman Connected Services Holding Corp. In the same year, SEA sold its full stake in NexusDX, Inc.

In 2019, Samsung Electronics Benelux B.V. (SEBN) acquired shares of Corephotonics Ltd. In the same year, SEC acquired a PLP business from affiliate Samsung Electro-Mechanics. In addition, Harman Becker Automotive Systems Manufacturing Kft merged with Duran Audio B.V.; and Samsung (China) Investment Co., Ltd. (SCIC) merged with Samsung Electronics (Beijing) Service Company Limited (SBSC).

In 2021, Samsung Research America, Inc. (SRA) merged with Viv Labs, Inc. Furthermore, Samsung Electronics America, Inc. (SEA) merged with Prismview, LLC.

☞ Details are for SEC and major subsidiaries of SEC. See 『1. Subsidiaries subject to consolidated accounting (detailed)』 in 『XII. Appendix』 for details.

G. Important changes in the Company's business

There were no changes over the past five fiscal years.

H. Other important matters related to the Company's business

In December 2021, the Company merged its CE and IM Divisions to form the DX Division and changed the Mobile Communications Business to the MX Division.

Also, the Company separated SDC and the DS Division in alignment with the corporate organizational structure.

[As of December 2021]

	Before	After
Business organization	CE Division (Visual Display, Digital Appliances, Medical Devices)	DX Division (Visual Display, Digital Appliances, Medical Devices, Mobile eXperience, Network)
	IM Division (Mobile, Network)	
	DS Division (Memory, System LSI, Foundry, DP)	DS Division (Memory, System LSI, Foundry)
		SDC (DP)
Harman Division	Harman	
Regional headquarters	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa	Korea, North America, Latin America, Europe, CIS, Southwest Asia, Southeast Asia, China, Middle East, Africa
	Americas (DS), Europe (DS), China (DS), Southeast Asia (DS), Japan (DS)	

3. Changes in paid-in capital

Pursuant to the reporting guidelines set forth by the Financial Supervisory Service (FSS) of South Korea, the “Changes in paid-in capital” section, reported in the full-year business report, is not included in the half-year report.

4. Stock information

A. Total number of shares

As of June 30, 2022, SEC’s issued shares on a cumulative basis totaled 7,780,466,850 registered common shares and 1,194,671,350 registered, non-voting preferred shares; and the Company had canceled 1,810,684,300 common shares and 371,784,650 preferred shares in accordance with resolutions of the Board of Directors (the Board). As of the same date, issued shares and shares outstanding totaled 5,969,782,550 for common shares and 822,886,700 for preferred shares.

[As of June 30, 2022]

(Shares)

Classification	Type of stocks			Note
	Common	Preferred	Total	
I. Authorized shares	20,000,000,000	5,000,000,000	25,000,000,000	-
II. Issued shares (cumulative)	7,780,466,850	1,194,671,350	8,975,138,200	-
III. Decrease in number of shares (cumulative)	1,810,684,300	371,784,650	2,182,468,950	-
1. Capital reduction	-	-	-	-
2. Cancellation	1,810,684,300	371,784,650	2,182,468,950	Treasury shares
3. Redemption	-	-	-	-
4. Other	-	-	-	-
IV. Issued shares (II-III)	5,969,782,550	822,886,700	6,792,669,250	-
V. Treasury shares	-	-	-	-
VI. Outstanding shares	5,969,782,550	822,886,700	6,792,669,250	-

Post-split basis; SEC conducted a 50:1 stock split effective from May 3, 2018, lowering par value of every common and preferred share from KRW 5,000 to KRW 100.

5. Changes to Articles of Incorporation

The most recent changes to the Articles of Incorporation took place on March 23, 2018. There were no other changes in the Articles of Incorporation in the past three fiscal years or in 2022 as of the disclosure date of the Korean version of this report.

II. Businesses Overview

Note on forward-looking statements

This report includes forward-looking statements that relate to future events and can be generally identified by phrases containing words such as “believes,” “expects,” “anticipates,” “foresees,” “forecasts,” “estimates” or other words or phrases of similar meaning. These forward-looking statements are not guarantees of future performance and may involve known and unknown risks, uncertainties and other factors that may affect our actual results, performance, achievements or financial position, making them materially different from the actual future results, performance, achievements or financial position expressed or implied by these forward-looking statements. Unless otherwise specified, all data presented in this report is from our consolidated financial statements.

Uncertain events that could positively or negatively affect the Company’s management condition and financial performance include, but are not limited to:

- Trends of financial markets domestically and abroad, including changes in exchange rates and interest rates
- The Company’s strategic decision making, including disposals and purchases of businesses
- Unexpected sudden changes in core businesses such as CE, IM, Semiconductor, DP and Harman
- Other changes domestically and abroad that can affect management condition and financial performance

The Company assumes no obligation to revise or update this report to reflect risks or uncertainties that arise after the reporting period.

(Responsibility statement)

In accordance with article 3(2) c) of the Transparency Law (Luxembourg), Jong-hee Han and Hark-kyu Park, as a CEO and the executive in charge of reporting confirm that, to the best of their knowledge, the consolidated financial statements and the statutory non-consolidated financial statements prepared in accordance with the applicable set of accounting standards give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole and that the management report includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

1. Overview

In addition to our headquarters in Korea, Samsung Electronics consists of 233 subsidiaries across the world responsible for sales and production. There are 9 regional headquarters for Device eXperience (DX) Division, 5 regional headquarters for the Device Solutions (DS) Division, and subsidiaries of Samsung Display (SDC) and Harman.

The Company’s business divisions are organized in a two-pronged framework consisting of finished products and component businesses. The finished product business consists of the DX Division, which is responsible for the production and sales of TVs, monitors, refrigerators, washing machines, air conditioners, HHPs, which includes smartphones, as well as network systems, and computers. The component business consists of the DS Division, which manufactures and sells DRAM, NAND flash, and mobile APs, and SDC, which manufactures and sells display panels (DPs), including mobile OLED panels. Harman (acquired in 2017) manufactures and sells products such as Digital cockpits, telematics, and speakers.

In December 2021, the Company merged the CE Division and the IM Division to form the DX Division and changed the Mobile Communications Business to the Mobile eXperience (MX) Division.

Also, SDC and the DS Division have been separated to align with the corporate organizational structure.

☞ See C. Current status of each division and D. Financial summary by organization in 『7. Other information』 for more details about each Division.

The Company’s corporate headquarters—which oversees the DX and DS Divisions—as well as 31 consolidated subsidiaries are located in Korea.

The Company's corporate headquarters is divided along Divisions and/or Businesses, which are located in Suwon, Gumi, Gwangju, Giheung, Hwaseong, Pyeongtaek, etc. The Company's unlisted domestic subsidiaries include Samsung Display for display panel production, Samsung Electronics Sales for domestic retail sales, Samsung Electronics Service for after-sales services, and Samsung Electronics Logitech for logistics.

We have 202 unlisted overseas subsidiaries for product manufacturing, sales, and R&D, with locations in the US, Europe/CIS, Middle East/Africa, and Asia, etc.

We have 46 subsidiaries in North America, including SEA (New Jersey; responsible for the sales of finished products including TV and HHPs), SII (California; manufacturing of TVs), SSI (California; sales of semiconductors and DPs), SAS (Texas; manufacturing of semiconductor products), SEDA (Brazil; manufacturing of multiple finished products) and Harman (Connecticut; automotive components) in the US.

In Europe and CIS, we operate 74 subsidiaries. These include SEUK (UK), SEG (Germany), SEF (France), SEI (Italy), SERC (Russia) for sales of finished products; SEH (Hungary) and SERK (Russia) for manufacturing TVs, and SEPM (Poland) for manufacturing home appliances.

We have 20 subsidiaries in Middle East and Africa, including SGE (UAE) and SSA (South Africa) for sales of finished products and SEEG (Egypt) and SSAP (South Africa) for manufacturing TVs.

We have 32 subsidiaries in Asia (ex China), including SESP (Singapore), SEAU (Australia), SEPCO (Philippines), and SME (Malaysia), which are responsible for regional sales. In addition, we operate numerous production sites including SEV and SEVT (Vietnam) for HHPs, SEHC (Vietnam) for TVs, SDV (Vietnam) for DPs, and SIEL (India) for multiple products.

We operate 30 subsidiaries in China, including SCIC (Beijing) and SEHK (Hong Kong) for the sales of finished products in those regions; and SSS (Shanghai) and SSCX (Xian) for semiconductors and DPs sales. Production sites for finished products include SSEC (Suzhou) and semiconductor production facilities are located in SCS (Xian) among others.

In 1H22, the Company recorded total revenue of KRW 154,985.1 billion, an increase of 20.1% year-on-year. Major customers (listed in alphabetical order) included Apple, Deutsche Telekom, Qualcomm, Supreme Electronics and Verizon.

2. Key products and services

A. Revenue

SEC is involved in the production and sales of finished products, including TVs, refrigerators, washers, air conditioners, HHPs and components such as semiconductors (DRAM, NAND Flash, mobile APs) and display panels. Through Harman, the Company also produces and sells products such as digital cockpits and telematics.

In 1H22, DX reported revenue of KRW 92,524.0 billion (59.7% of total net sales) and DS contributed approximately 35.7% of revenue, reporting KRW 55,365.0 billion and SDC reported revenue of KRW 15,681.2 billion (10.1%). Harman reported net sales of KRW 5,649.2 billion (3.6%).

(KRW 100 mil)

Organization	Major products	Revenue	Portion
DX Division	TVs, monitors, refrigerators, washing machines, air conditioners, HHPs, network systems, computers, etc.	925,240	59.7%
DS Division	DRAM, NAND flash, mobile APs, etc.	553,650	35.7%
SDC	OLED smartphone panels, etc.	156,812	10.1%
Harman	Digital cockpit, telematics, speakers, etc.	56,492	3.6%
Others	Overlapping internal transactions between Divisions	-142,343	-9.1%
Total		1,549,851	100.0%

Includes inter-divisional transactions.

☞ See 『4. Sales and long-term contracts』 for sales by each product.

B. Average selling price changes

In 1H22, the ASP of TVs decreased approximately 4% and that of HHPs increased approximately 9% year-on-year. The ASP of memory products fell by approximately 0.3% year-on-year, and display panel (OLED panels for smartphones) ASP increased approximately 13%. The ASP of digital cockpits declined approximately 1% year-on-year.

3. Production materials and production facilities

A. Key production materials

For the DX Division, key materials include mobile AP and camera modules, which are supplied by Qualcomm, Semco, etc., and display panels for TVs and monitors, which are supplied by CSOT, etc. For the DS Division, key materials include wafers and chemicals, supplied by SK Siltron, Soulbrain, etc., and for SDC, key materials include FPCAs and windows, with suppliers such as BH, Apple, etc. For Harman, key materials include SoC (system-on-chip) products and memory products for in-vehicle solutions, which are supplied by Nvidia, Arrow, etc.

Organization	Type of purchase	Item	Specific usage	Purchase price	Portion ¹⁾	Main supplier(s)
DX Division	Production materials	Mobile AP	CPU	44,944	11.4%	Qualcomm, MediaTek, etc.
	Production materials	Display panel	Color picture signaler for TV, monitor	36,657	9.3%	CSOT, AUO, BOE, etc.
	Production materials	Camera module	Camera for HHP	33,047	8.4%	Semco, Partron, etc.
	Production materials	Others	-	278,671	70.9%	
	Sub total			393,319	100.0%	
DS Division	Production materials	Wafer	Semiconductor disk	13,979	15.1%	SK Siltron, Sumco etc.
	Production materials	Chemical	Disk processing	13,048	14.1%	Soulbrain, DongWoo Fine-Chem, etc.
	Production materials	Others	-	65,480	70.8%	
	Sub total			92,507	100.0%	
SDC	Production materials	FPCA	Circuit	13,684	23.5%	BH, Union, etc.
	Production materials	Window	Tempered glass	7,474	12.8%	Apple, Biel, etc.
	Production materials	Others	-	37,192	63.7%	
	Sub total			58,350	100.0%	
Harman	Production materials	SoC	Chips for vehicles	4,118	11.4%	Nvidia, Intel, etc.
	Production materials	Automotive memory chip	Chips for vehicles	2,049	5.7%	Arrow, Avnet, etc.
	Production materials	Others	-	29,956	82.9%	
	Sub total			36,123	100.0%	
Others	Production materials	-	-	222	-	
Total				580,521	-	

Purchase price does not include sales between Divisions.

Semco is a subsidiary.

1) Portion of purchase price of each item compared to total purchase price for each Division's raw materials.

B. Production material price trends

Compared to last year, the price of mobile AP and camera modules, which are major production materials for the DX Division, increased approximately 58% and 10%, respectively. The price of TV and monitor display panels, which are also major production materials for the DX Division, decreased approximately 45% year-on-year. The price of wafers for semiconductor disks, which are major production materials for the DS Division, and FPCAs for SDC increased year-on-year by approximately 4% and 19%, respectively. Prices of tempered glass windows had no significant change compared to last year. For Harman, the price of SoCs decreased approximately 3% and memory for vehicles increased 1%.

C. Production capacity, output, utilization rate

(Capacity)

(1,000 units)

Organization	Item	Capacity		
		1H22	2021	2020
DX Division	Image devices	28,072	54,235	51,538
	HHP	158,850	319,550	321,600
DS Division	Memory	985,823,865	1,756,009,941	1,230,287,321
SDC	Display panel	1,570	3,604	7,274
Harman	Digital cockpit	5,764	9,066	9,362

Production capacity for major product categories on a consolidated basis.

The DX Divisions' production capacity, by major product, is calculated as follows:

- the average number of lines (x) the average output per hour (x) the average operation hours per day (x) standard days of operation

Memory production capacity for the DS Division is calculated as follows:

- converted output (after packaging, 1Gb equivalent) ÷ the utilization rate

SDC's production capacity is calculated as follows:

- the total producible panel surface area ÷ the dimensions of eighth generation glass (2,200x2,500mm)

Harman's production capacity for Digital cockpit is calculated as follows:

- the number of production (assembly and test) cells for each customer/product (x) the production capacity per hour by production cell (x) the standard operation hours per day (x) standard days of operation

(Output)

In 1H22, the DX Division's output of image devices was 20,877 thousand units (major production sites: Mexico, Vietnam, Brazil, and Hungary), and HHP output was 119,984 thousand units (major production sites: Korea [Gumi], Vietnam, India, and Brazil). The DS Division's memory output (1Gb equivalent) was 985,824 million (major production sites: Korea [Hwaseong, Pyeongtaek, etc.] and China). SDC's output of display panels was 1,271 thousand units (major production sites: Korea [Cheonan, Asan]). Harman's Digital cockpit output was 3,952 thousand units.

(1,000 units)

Organization	Item	Output		
		1H22	2021	2020
DX Division	Image devices	20,877	44,133	48,244
	HHP	119,984	260,501	249,218
DS Division	Memory	985,823,865	1,756,009,941	1,230,287,321
SDC	Display panel	1,271	2,849	5,977
Harman	Digital cockpit	3,952	6,928	6,116

Output for major product categories on a consolidated basis.

(Utilization rate)

In 1H22, DX utilization rates were calculated as actual output relative to production capacity. The utilization rates were 74.4% for Image devices and 75.5% for HHPs.

(1,000 units)

Organization	Item	1H22		
		Production capacity	Output	Utilization rate
DX Division	Image devices	28,072	20,877	74.4%
	HHP	158,850	119,984	75.5%

The DS Division operates memory and SDC operates display panel production in three shifts (24 hours a day). Cumulative operating days including holidays were 181 days in 1H22. The utilization rate was calculated as the actual production time relative to the potential production capacity [operating days (x) number of production lines (x) 24 hours].

(Hours)

Organization	Item	1H22		
		Potential production time	Actual production time	Utilization rate
DS Division	Memory	39,096	39,096	100%
SDC	Display panel	25,200	25,200	100%

In 1H22, Harman's utilization rate was 68.6% and was calculated as actual output relative to production capacity.

(1,000 units)

Organization	Item	1H22		
		Production capacity	Output	Utilization rate
Harman	Digital cockpit	5,764	3,952	68.6%

D. Production facilities and investment

(Key facilities for production and operation)

The Company's operational activities include production, development, marketing, and sales. In Korea, operations are located in Suwon, Gumi, Gwangju, Hwaseong, Pyeongtaek, and Asan. Overseas operations in North America, Europe, and China include a total of nine regional headquarters under the DX Division, five regional headquarters under the DS Division, and subsidiaries of SDC and Harman.

[Operations]

Region	Operations	Location
Korea (DX Division, DS Division, SDC – 12 work sites)	Suwon	Suwon
	Secho	Seoul
	Woomyeon	Seoul
	Giheung	Yongin
	Hwaseong	Hwaseong
	Pyeongtaek	Pyeongtaek
	Cheonan	Cheonan
	Onyang	Onyang
	Asan	Asan
	Gumi1	Gumi
	Gumi2	Gumi
	Gwangju	Gwangju
Overseas (DX Division - 9 regional headquarters)	North America	New Jersey, US
	Europe	Surrey, UK
	China	Beijing, China
	Southeast Asia	Singapore, Singapore
	Southwest Asia	Haryana, India
	CIS	Moscow, Russia
	Middle East	Dubai, UAE
	Africa	Johannesburg, South Africa
	Latin America	Sao Paulo, Brazil
Overseas (DS Division - 5 regional headquarters)	Americas	San Jose, US
	Europe	Eschborn, Germany
	China	Shanghai, China
	Southeast Asia	Singapore, Singapore
	Japan	Tokyo, Japan
Harman	North America HQ	Connecticut, US

Harman's automotive business is mainly based in the US (Novi, MI) and in Germany (Garching), and its Lifestyle business is located in the US (Northridge, CA)

The Company's property, plant and equipment include land, buildings and structures, machinery and equipment, and construction in progress. As of June 30, 2022, the total book value was KRW 154,254.6 billion, which is an increase of KRW 4,326.1 billion from year-end 2021.

(KRW 100 mil)

Classification		Land	Buildings and structures	Machinery and equipment	Under construction	Other tangible assets	Total
Dec 31, 2021	Book value	98,302	388,694	795,263	180,093	36,933	1,499,285
	- Acquisition cost	99,436	626,515	2,749,096	180,093	119,580	3,774,720
	- Accumulated depreciation (including impairment loss)	-1,134	-237,821	-1,953,833	-	-82,647	-2,275,435
Change	General acquisition and capital expenditure	381	9,894	113,466	77,022	6,781	207,544
	Depreciation ¹⁾	-248	-16,518	-155,308	-	-8,704	-180,778
	Disposal/discard/impairment	-353	-779	-248	-	-268	-1,648
	Others ²⁾	369	7,328	7,559	1,343	1,544	18,143
Jun 30, 2022	Book value	98,451	388,619	760,732	258,458	36,286	1,542,546
	- Acquisition cost	99,772	646,217	2,872,893	258,458	125,426	4,002,766
	- Accumulated depreciation (including impairment loss)	-1,321	-257,598	-2,112,161	-	-89,140	-2,460,220

Market value of major tangible assets is omitted as objective assessment is difficult.

1) Land-depreciation is depreciation expense of right-of-use asset as per K-IFRS 1116 (Lease).

2) Includes effects of FX rates and government subsidies.

(Capex)

The Company's capex in 1H22 was KRW 20.3 trillion, with investments concentrating on capacity expansions and migration of advanced nodes as well as on infrastructure for the DS Division and SDC. In 2022, the Company will continue to execute capex considering its efficiency to secure stable growth and to respond flexibly to changes in market conditions, aiming enhance competitiveness of our major businesses and address growing future demand.

[Capex, by organization]

(KRW 100 mil)

Organization	Purpose	Period	Assets	Investment
DS division	Establishment, addition, upgrade	January–June 2022	Buildings, facilities, etc.	175,598
SDC	Establishment, addition, upgrade	January– June 2022	Buildings, facilities, etc.	15,418
Other	Establishment, addition, upgrade	January– June 2022	Buildings, facilities, etc.	11,503
Total				202,519

4. Sales and long-term contracts

A. Sales

In 1H22, the Company recorded total revenue of KRW 154,985.1 billion, an increase of 20.1% year-on-year. By organization, when compared to the same period last year, revenue of the DX Division, DS Division, SDC, and Harman increased by 17.3%, 30.7%, 13.7% and 18.0%, respectively.

(KRW 100 mil)

Organization	Sales types	Product categories	1H22	2021	2020
DX Division	Goods, products, services, other	TVs, monitors, refrigerators, washing machines, air conditioners, HHPs, Network systems, computers, etc.	925,240	1,662,594	1,489,135
DS Division	Goods, products, services, other	DRAM, NAND flash, mobile APs, etc.	553,650	953,872	740,540
SDC	Goods, products, services, other	OLED panels for smartphones, etc.	156,812	317,125	305,857
Harman	Goods, products, services, other	Digital cockpit, telematics, speakers, etc.	56,492	100,399	91,837
Others	Overlapping internal transactions between Divisions		-142,343	-237,942	-259,299
Total			1,549,851	2,796,048	2,368,070

Includes inter-divisional transactions.

Figures for 2020 and 2021 were adjusted to align with those of 2022, reflecting the organizational changes in December 2021.

(1) Sales, by major product (on a consolidated basis)

(KRW 100 mil)

Classification	1H22	2021	2020
Image devices	162,558	314,974	277,118
Mobile devices	592,282	1,046,806	960,217
Memory	411,668	726,022	555,442
Display panels	156,812	317,125	305,857

Includes inter-divisional transactions.

(2) Sales, by type

(KRW 100 mil)

Classification	1H22	2021	2020
Products	1,470,786	2,658,785	2,235,963
Services and other sales	79,065	137,263	132,107
Total	1,549,851	2,796,048	2,368,070

Other sales consists of royalty income, etc.

(3) Sales, by region (on a separate basis)

(KRW 100 mil)

Classification	1H22	2021	2020
Domestic	120,077	221,497	198,331
Export	Americas	360,452	476,768
	Europe	142,440	235,012
	Asia and Africa	226,066	315,598
	China	304,620	437,403
Total	1,153,655	1,997,447	1,663,112

Domestic consumption and exports on a separate basis.

B. Sales channels

(1) Domestic

Seller	Sales channel	Consumer
Manufacturer and buyer	Exclusive agencies	Consumer
	Distributor (general merchandise stores, discount stores, department stores, home-shopping, online, etc.)	
	Telecommunication service provider (SKT Co., Ltd., KT Corp., LG Uplus Corp.)	
	Direct Sales (B2B and online channels)	

(2) Overseas

Seller	Sales channel				Consumer
Production subsidiaries	Regional sales office	Retailer			Consumer
		Dealer		Retailer	
		Distributor	Dealer	Retailer	
		Telecommunication service provider, automotive OEM			
		Direct sales (B2B and online channels)			
	Regional distribution office	Regional sales office	Retailer		
			Dealer	Retailer	
			Distributor	Dealer	

(3) Sales ratio (global), by Channel

Channel	Wholesale	Retail	Special/direct sales	Others
Ratio	19%	26%	52%	3%

C. Sales methods and conditions

(1) Domestic

Classification	Channel	Collection	Incidental expense sharing
Exclusive	Retailer	Credit specific	Case specific cost sharing as determined by mutual agreement
Distributor	General merchandise store, discount store, department store, home shopping, online, etc.	Case specific and contract specific	Case specific cost sharing as determined by mutual agreement
Telecommunication service provider	SKT Co., Ltd., KT Corp. LG Uplus Corp.	Case specific and contract specific	Case specific cost sharing as determined by mutual agreement (joint marketing)
B2B and online channels	Corporate clients, etc.	Case specific and contract specific	N/A

(2) Overseas

Classification	Channel	Collection	Incidental expense sharing
Retailer	Retail store	Case specific and contract specific	Case specific cost sharing as determined by mutual agreement
Dealer	General merchandise store, discount store, department store	Case specific and contract specific	Case specific cost sharing as determined by mutual agreement
Distributor	Direct sales to local distributors	Case specific and contract specific	Case specific cost sharing as determined by mutual agreement
B2B and online channels	Corporate clients, etc.	Case specific and contract specific	N/A

D. Sales strategy

- Expand market leadership based on premium products
- Provide differentiated value to customers through brand, products, and services
- Strengthen marketing activities to boost demand from customer/market

E. Major customers

In 1H22, major customers (listed alphabetically) included Apple, Deutsche Telekom, Qualcomm, Supreme Electronics and Verizon. Sales to the five major customers accounted for approximately 15% of total sales.

F. Long-term contracts

As of June 30, 2022, there were no long-term contracts that have a significant impact on the Company's financial statement.

5. Risk management and derivative trading

A. Financial risk management policy

The Company's financial risk management focuses on minimizing market risk, credit risk, and liquidity risk arising from operating activities. To mitigate these risks, the Company closely monitors each risk factor and operates corresponding financial risk management policies and program. The Company's use of derivative instruments for hedging risks are included in this program.

The finance team mainly carries out the Company's financial risk management. After implementing the global financial risk management policies, the finance team periodically measures, evaluates, and hedges financial risks.

Meanwhile, the Company manages exchange rate risk via monitoring exchange rates and conducting transactions through local finance centers in each major region (United States, United Kingdom, Singapore, China, Brazil, and Russia). Liquidity risk is managed by managing capital as a whole by each region.

The Company's assets that are under financial risk management consist of cash and cash equivalents, short-term financial instruments, financial assets at amortized cost, trade receivables and others. The Company's liabilities under financial risk management consist of trade payables, borrowings, and others.

B. Major financial risks

(1) Market risk

(Foreign exchange risk)

The Company operates internationally and is exposed to foreign exchange risks as it conducts transactions in currencies other than the functional currency. Major currencies that are exposed to foreign exchange risk include USD, EUR, INR, and others.

The Company focuses on minimizing the impact of foreign exchange fluctuation by maintaining the equal amount of assets and liabilities denominated in each foreign currency, irrespective of foreign exchange fluctuation considerations. To prevent exchange position, the Company's foreign exchange management policy requires normal business transactions, including import and export, as well as financing transactions such as depositing and borrowing, to be in local currency or for the cash-in currency to be matched up with the cash-out currency.

In order to effectively manage foreign exchange risk, the Company periodically monitors and evaluates exchange rate risk and strictly prohibits speculative foreign exchange transactions.

(Interest rate risk)

Risk of changes in interest rates for floating interest rate financial instruments is defined as the risk that the fair value of components of the consolidated statement of financial position, and future cash flows of interest income (expenses) of a financial instrument, will fluctuate because of changes in market interest rates. The Company's position with regard to interest rate risk exposure is mainly driven by its floating interest rate debt obligations and interest-bearing deposits. The Company implemented policies and operates to minimize uncertainty arising from changes in interest rates and financial expenses.

(Price risk)

The Company's investment portfolio consists of direct and indirect investments in equity securities classified as financial assets at fair value through other comprehensive income and financial assets at fair value through profit or loss, which is in line with the Company's strategy.

As of June 30, 2022, a price fluctuation of marketable equity securities (listed stocks) of 1% changes ‘other comprehensive income’ (before income tax) by KRW 90,393 million and ‘profit before tax’ by KRW 3,413 million. The figures as of the same date in 2021 were KRW 107,635 million and KRW 3,941 million, respectively.

(2) Credit risk

Credit risk arises during the normal course of transactions and investing activities where clients or other parties fail to discharge an obligation. The Company sets and manages the client’s and counterparty’s credit limit, and evaluates their financial credit rating on a periodic basis based on the client’s and counterparty’s financial conditions, default history and other important factors. Adequate insurance coverage is maintained for trade receivables related to trading partners situated in higher risk countries.

Credit risk can arise from transactions with financial institutions, which include financial instrument transactions such as cash and cash equivalents, savings, and derivative instruments. To minimize such risk, the Company transacts only with banks which have strong international credit rating (S&P A and above), and all new transactions with financial institutions with no prior transaction history are approved, managed and monitored by the Company’s finance team and the local finance center. The Company generally enters into a financial agreement with no restrictions, such as debt ratio covenants, provision of collateral, and loans or borrowings repayment. The Company requires separate approval for contracts with restrictions.

The Company estimates that its maximum exposure to credit risk is the carrying amount of its financial assets, net of impairment losses.

(3) Liquidity risk

Due to the nature of the Company’s business that requires making large investments, maintaining adequate level of liquidity risk is crucial. The Company maintains and manages adequate level of liquidity by periodically forecasting its capital balances, estimating required cash, managing income and expenses, and others.

The Company effectively manages its liquidity risk by periodically forecasting projected cash flows and by utilizing regional cash pooling, which allows for the use of internal funds when an entity in a region lacks liquidity. The cash-pooling program allows sharing of surplus funds among entities and contributes to minimizing liquidity risk and strengthening the Company’s competitive position by reducing capital operation expenses and financial expenses.

In addition, the Company’s headquarters provides payment guarantees to overseas subsidiaries to secure credit limit to brace for a potential large-scale liquidity need.

(4) Capital risk

The purpose of capital management is to protect our capability of continuously providing profit to our shareholders and stakeholders and to maintain a sound capital structure. To this end, the Company monitors capital on the basis of credit rating and the ratio of total liabilities to total equity.

As of June 30, 2022, the Company has an AA- and Aa3 credit rating from S&P and Moody’s, respectively, and the figures for total liabilities and total equity are as follows:

(KRW mil)

	Jun 30, 2022	Dec 31, 2021
Total liabilities	120,133,986	121,721,227
Total equity	327,906,664	304,899,931
Total liabilities to equity ratio	36.6%	39.9%

C. Derivative instruments and put options

The Company hedges foreign currency positions by trading currency forward contracts of currencies other than won for the purpose of managing foreign exchange risk. Currency forwards are bought through a bank in the purpose of trade and hedging.

As of June 30, 2022, the Company had 2,577 currency forward contracts involving 36 foreign currencies including USD/EUR/JPY, and the book value of assets and liabilities as well as valuation gain and loss were as follows:

(KRW mil)

	Assets	Liabilities	Valuation gain	Valuation loss
Currency forwards	172,419	157,515	649,518	756,010

Samsung Display (a subsidiary of the Company) may exercise its put option to sell part of its shares of Corning Incorporated back to Corning, according to the stock trade contract with Corning on April 8, 2021.

Furthermore, Samsung Display may exercise its put option to sell all or part of its shares of TCL China Star Optoelectronics Technology Co. Ltd. (CSOT) to TCL Technology Group Corporation (TCL), if CSOT remains unlisted within the listing period, according to the shareholders' agreement executed with TCL and CSOT on April 1, 2021.

Fair value of the above put option as of June 30, 2022 was evaluated by Earnest & Young Global Limited.

6. Major contracts and research and development activities

A. Major contracts

Account	Contract information	Contents
Cisco	Type	Patent cross-license agreement
	Date	Jan 23, 2014
	Purpose and contents	Eliminate risk of patent disputes and lawsuits through mutual patent licensing
Google	Type	Patent cross-license agreement
	Date	Jan 25, 2014 / indefinite term
	Purpose and contents	Eliminate risk of patent disputes and lawsuits through mutual patent licensing
	Other	Permanent license contract (including patent applications in the next 10 years)
GlobalFoundries Inc.	Type	Process technology license agreement
	Date	Feb 28, 2014
	Purpose and contents	Expand customer base of 14nm process
InterDigital	Type	Patent license agreement
	Date	Jun 3, 2014
	Purpose and contents	Eliminate risk of patent disputes and lawsuits through patent licensing
Qualcomm	Type	Patent cross-license agreement
	Date	Jan 1, 2018–Dec 31, 2023
	Purpose and contents	Eliminate risk of patent disputes and lawsuits through mutual patent licensing and signing of covenant not to sue
Apple	Type	Withdrawal of lawsuit agreement
	Date	Jun 26, 2018
	Purpose and contents	Withdraw from all lawsuits in the United States
Nokia	Type	Patent license agreement
	Date	Oct 19, 2018
	Purpose and contents	Eliminate risk of patent disputes and lawsuits through patent licensing
Microsoft	Type	Patent cross-license agreement
	Date	Feb 11, 2019
	Purpose and contents	Eliminate risk of patent disputes and lawsuits through mutual patent licensing
Google	Type	EMADA

Account	Contract information	Contents
	Date	Feb 27, 2019–Dec 31, 2022 (extended)
	Purpose and contents	Licensing agreement for using Google apps (Play Store, YouTube, etc.) in 31 European countries (EEA)
Huawei	Type	Patent cross-license agreement
	Date	Feb 28, 2019
	Purpose and contents	Eliminate risk of patent disputes and lawsuits through mutual patent licensing
AMD	Type	Technology licensing agreement
	Date	May 30, 2019
	Purpose and contents	Secure mobile graphics design for mobile products and other applications
Sharp	Type	Patent cross-license agreement
	Date	July 30, 2019
	Purpose and contents	Eliminate risk of patent disputes and lawsuits through mutual patent licensing
Ericsson	Type	Patent cross-license agreement
	Date	May 7, 2021
	Purpose and contents	Eliminate risk of patent disputes and lawsuits through mutual patent licensing

Information that may be referenced or used in other IP disputes, including contract amount, is excluded.

B. Summary of R&D activities and expenditures

The Company is leading the global market by continuously developing creative and innovative products and the future technology through shifting its way of thinking and understanding customer demand. The Company is doing its utmost to cement its position in the global IT industry and become a worldwide leader in industrial technology by creating and securing next-generation technology.

As of June 30, 2022, the Company's R&D expenses were KRW 12,177.9 billion year-to-date. Among this, KRW 12,177.1 billion was recognized as expenditures, excluding government subsidies and capitalized expenses.

(R&D expenses)

(KRW mil)

		1H22	2021	2020
Total R&D expenditures		12,177,933	22,596,487	21,229,200
(Government subsidies)		-827	-1,053	-8,228
R&D expenditures		12,177,106	22,595,434	21,220,972
Accounting	Capitalization of development expenses (intangible asset)	-	-193,708	-109,482
	R&D costs (expenses)	12,177,106	22,401,726	21,111,490
R&D expenses/sales ratio ¹⁾		7.9%	8.1%	9.0%

On a consolidated basis.

1) Calculated using total R&D expenditures, which includes government subsidies.

C. R&D organization and operations

(Domestic)

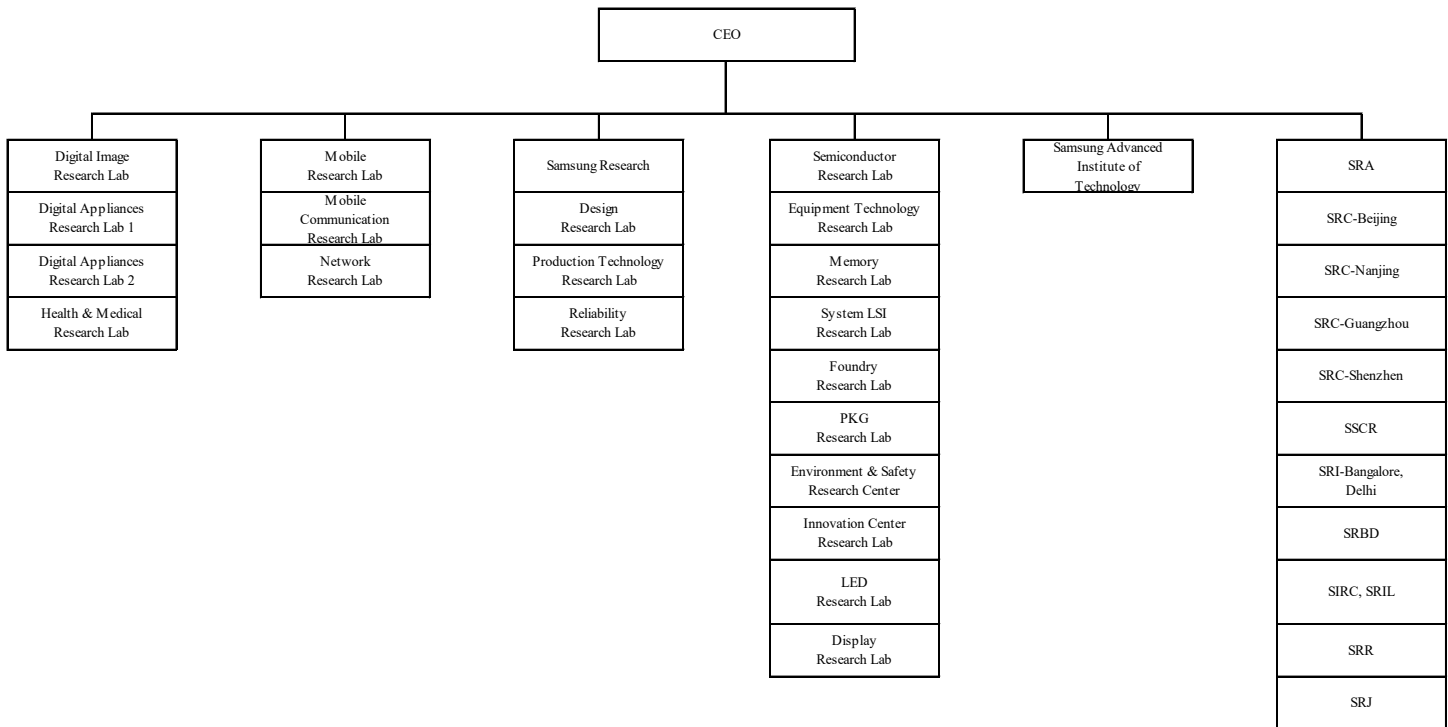
The Company operates three levels of R&D organizations: R&D teams of business units under each Division that develop market-ready technologies with a 1–2 year outlook; research institutes of each Division that develop mid- to long-term technology with a 3–5 year outlook; and the Samsung Advanced Institute of Technology, which develops core technology as seeds for future growth engines.

Samsung Advanced Institute of Technology is the central research institute of Samsung Electronics that has been established to lead the Company into the future and serve as an incubator of cutting-edge technology. It has a creative R&D system and provides R&D direction for promising growth sectors at the Company level, exploring future growth engines and strengthening technological competitiveness of core businesses.

(Overseas)

The Company operates R&D organizations in the US (SRA), China (SSCR, SRC-Beijing, SRC-Nanjing, SRC-Guangzhou, SRC-Shenzen), India (SRI-Bangalore and SRI-Delhi), Bangladesh (SRBD), Israel (SRIL and SIRC), Russia (SRR), and Japan (SRJ), to carry out research activities for product development and basic technological research.

The Company has established AI centers in Cambridge (United Kingdom), Moscow (Russia), Toronto (Canada), Montreal (Canada), and New York (United States), so our global team of researchers can collaborate with international experts to strengthen capabilities in AI technology.



As of June 30, 2022.

D. R&D results

The Company's key R&D results by organization in 1H22 are as follows:

DX Division	
Research project	Details
Neo QLED 8K	• Release of ultra-high-definition, slim 8K TV based on mini LED
Neo QLED 4K	• Rollout of three series and seven sizes based on mini LED
Grande AI Washer	• Release of 24kg Grande AI Washer that features a pet-care cycle / 20kg Grande AI Dryer
Galaxy S22	• Rollout of Galaxy S22 · S22+ · S22 Ultra
Galaxy Tab	• Release of Galaxy Tab S8 · S8+ · S8 Ultra
Galaxy A	• Rollout of A73 5G • Release of A53 5G • Launch of A33 5G • Release of Galaxy A23 LTE • Launch of Galaxy A13 LTE · 5G
Galaxy Book	• Rollout of Galaxy Book2 Pro 360 • Release of Galaxy Book2 Pro
DS Division	
Research project	Details
DRAM for mobile	• Development of industry's first LPDDR5X DRAM
Exynos	• Release of Exynos 2200, a premium mobile AP
LSI	• Release of single-chip fingerprint security IC (S3B512C) for biometric payment cards
Foundry	• Adoption of GAA for the 3-nano process for the first time in the world
SDC	
Research project	Details
QD-Display	• QD-Display (55" UHD, 65" UHD) for TV • QD-Display (34" QHD) for monitor

Please refer to 『Appendix-4. R&D results (detailed)』 for more details.

7. Other information

A. Intellectual property

Intellectual property activities are an integral part of our R&D strategies—SEC registered its first US patent in 1984 and currently holds 223,121 patents around the world. The Company holds the highest number of its patents in the US and aims to address conflicts in the US more effectively.

(Number of patents registered in each country)

[As of June 30, 2022]

(Unit: No. of patents)

	Korea	US	Europe	China	Japan	Others	Total
Number	50,043	86,870	42,230	20,606	9,122	14,250	223,121

In 1H22, the Company invested KRW 12.2 trillion in R&D and registered 4,630 domestic and 4,170 US patents.

(Number of patent registrations per year)

(Unit: No. of patents)

	1H22	2021	2020
Korea	4,630	8,437	6,648
US	4,170	8,565	8,520

These patents are mostly related to smartphones, smart TVs, memory, and system LSI products for the Company's strategic business products or for future use. These patents not only protect the Company's business but also play a role in keeping similar technology and patents, as well as competitors, in check. Additionally, the Company is focusing on securing early patents in new technologies ahead of others, in order to protect opportunities and have the freedom to operate when entering new businesses.

The Company has signed licensing agreements with Cisco (signed in January 2014), Google (January 2014), Qualcomm (January 2018), Nokia (October 2018), Microsoft (February 2019), Sharp (July 2019), and Ericsson (May 2021) through which the Company has secured an extensive patent protection in mainstay businesses as well as in the fields of new business.

The Company has also been focusing on securing design patents to protect its original design applied to smartphones and smart TVs. In 1H22, the Company acquired 194 US design patents, in part for the aforementioned purposes.

B. Environmental regulations

The Company strictly abides by environmental regulations on products and in the workplace, as prescribed by law. In addition, in accordance with "the low carbon green growth policy" of the Korean government, the Company reports "the amount of greenhouse gas emission and energy use" to the government and provides related information to stakeholders by providing various reports, including the Samsung Sustainability Report.

(Environmental regulation of products)

Environmental regulation of products are becoming stricter, reflecting the concerns of governments and regulators about potential direct and indirect impact of products to consumers' health and safety as consumers. Accordingly, the Company is working to minimize the environmental impact throughout the entire life cycle of products from the development stage of components and products to manufacturing, distribution, use, and disposal. The Company offers "Eco-Partner Certification" to suppliers for components free of harmful substances, and runs an "eco-design evaluation" system to reflect eco-friendly elements on products (reduced use of resources, energy and harmful substances, and the use of eco-friendly materials) at the development stage, and operates a "waste electronics collection recycle system" in Europe, North America, Korea, and India for collecting and recycling waste electronics. These activities are in line with domestic and foreign environmental laws on electronics and are a differentiation factor for the Company and its products.

Relevant laws are as follows:

1. law on collection and recycle of waste electronics (eg, EU WEEE Directive)
2. limit on the use of harmful substances (eg, EU RoHS Directive, REACH Regulation)
3. regulation on energy efficiency (eg, EU ErP Directive)

(Environmental regulations in the workplace)

The Company operates environmental pollution prevention facilities to reduce air pollution, water pollution, and waste disposal, and to minimize the discharge of pollutants, thereby minimizing impact on the surrounding environment.

Environmental management of workplace is supervised by the relevant government authorities. All production facilities, domestic and overseas, have acquired the International Occupational Health and Safety Management System Certification (ISO 14001, ISO 45001) to strengthen compliance.

Major Relevant Domestic and International Laws are as follows:

1. Regulations related to emission of pollutants: Water Quality and Ecosystem Conservation Act, Clean Air Conservation Act, Wastes Control Act, Noise and Vibration Control Act, Environmental Impact Assessment Act
2. Management of greenhouse gas emission: Act on Allocation and Trading of Greenhouse Gas Emission, Framework Act on Low Carbon, Green Growth
3. Others: Toxic Chemicals Control Act, Act on the Registration and Evaluation, etc. of Chemical Substances, Odor Control Law, Soil Environment Conservation Act

(Greenhouse gas emission and energy consumption management)

The Company is a “controlled entity” according to Article 42 (Coping with Climate Change and Management of Targets for Energy) Paragraph 6 of Korea’s “Framework Act on Low Carbon, Green Growth”. Thus, the Company has been reporting the amount of greenhouse gas emission and energy consumption, verified by a third-party, to the authorities and disclosing it to stakeholders according to Article 44 (Reporting on Quantity of Greenhouse Gases Emitted and Quantity of Energy Consumed) of the same Act since May 2011.

The reported amount of greenhouse gas emission and energy use are provided below:

(Unit: tCO₂-eq, TJ)

	2021	2020	2019
Greenhouse gas (tCO ₂ -eq)	19,267,835	17,234,522	15,998,397
Energy (TJ)	274,298	255,990	242,345

On a consolidated basis. Please refer to 『4-D. Green Management』 of 『XI. Other Information』 for results on a separate basis.

Domestic manufacturing facilities, office buildings, buildings owned by the Company, leased buildings, etc.

Reported Greenhouse gas emission excludes ozone depletion substances (ODS).

Amounts may differ based on results of governmental evaluations on emissions.

From 2015, in accordance with the Article 8 (Designation of Business Entities Eligible for Allocation) of the Act on the Allocation and Trading of Greenhouse-Gas Emission Permits, the Company is an eligible business entity under the Act.

C. Current status of each division

[DX Division]

□ Industry overview

TVs are key products of the DX Division, and the TV industry went through continual technological developments. The black-and-white TV was first developed in 1926, and in 1954, RCA started mass production and sales of 21" color TVs. Such developments have led to the creation of products such as the Trinitron CRT (1967) and flat CRT (1996). As the penetration rate in major countries reached over 90%, the growth of the CRT TV industry stagnated. The industry regained strong growth momentum following the launch of flat panel TVs (“FPTVs”) like LCDs and PDPs, especially with the expansion of digital broadcasting. FPTVs replaced CRT sets on the back of their enhanced design, picture quality, etc., combined with a sharp decline in prices.

The year 2010 saw the launch of 3D TVs, and the rise of internet video services along with increased consumer interest in smart devices from 2011 to 2012 led to the birth of the smart TV market. The evolution continued with the launches of Quantum Dot QLED TVs in 2017, boasting significantly enhanced resolution and picture quality, and with commercialization of 8K and Micro LED TVs.

The mobile phone industry started with first generation analogue devices in the early 1980s that only supported voice communication and evolved to second generation digital ones, using technology such as CDMA and GSM, where users could send voice and text messages. Third generation mobile communication standards such as WCDMA allowed users to send photos and videos. Today, fourth generation LTE mobile communication technology with ultra-high-speed data transmission is becoming commonplace and was used in 75% of phones sold in 2021 (*Strategy Analytics*, June 2022).

Fifth generation mobile communication services, which will lead innovation alongside the fourth industrial revolution, was successfully launched in Korea and the US, and is now commercialized globally. As a result, 5G smartphones are accelerating the development of an ecosystem of mashup services and related industries, with the sales increasing sharply to 610 million units in 2021 from 270 million units in 2020 (*Strategy Analytics*, June 2022).

The smartphone industry has grown significantly since 2007. In 2021, the smartphone portion of total HHP sales volume was approximately 77%, and the feature phone portion of the total was approximately 23%, with the latter related to demand in developing nations (*Strategy Analytics*, June 2022). For 2022, the penetration rate of smartphones is forecasted to reach 53%, rising slightly from 51% in 2021 (*Strategy Analytics*, June 2022).

Also, as the smartphone market shows high saturation, the importance of competitive software—such as applications, UX, games, media, advertisements, mobile payments, AI, and AR—is rising alongside that of competitive hardware, which includes high-performance APs, large screen AMOLED displays, foldable form factors, multiple cameras, sensors, waterproof & dustproof features, biometric recognition, and more.

□ Market condition

In 2021, market players continued to strive for innovations in picture quality, sound, and form factor to create demand for premium TVs, but TV demand decreased year-on-year in 2021 to approximately 213.54 million units due to the impacts of disruptions in global supply chains and logistics. In 2022, TV demand is projected to continue to decline, falling to 208.79 million units due to aggravated inflation triggered by the Russia-Ukraine war and increased supply instability of raw materials (*Omdia*; projections in 1Q22).

< Market share of TV >

Product	1H22	2021	2020
TV	31.6%	29.5%	31.9%

Global market share in revenue; data for 1H22 is an estimate from the Company.

Moreover, the smartphone market is projected to decline slightly from 1.36 billion units in 2021 to 1.30 billion units in 2022 due to uncertainties, such as continued geopolitical instability and inflation (*Strategy Analytics*; June 2022). Meanwhile, the tablet market, which continued to decrease due to weak replacement demand, grew to 180 million units in 2021 due to an increase in contactless demand triggered by COVID-19, but it is projected to drop slightly to 170 million units in 2022 (*Strategy Analytics*; June 2022).

< Market share of Smartphone >

Product	1H22	2021	2020
Smartphone	22.6%	20.0%	19.6%

Global market share in quantity; data from research firm *Strategy Analytics*.

□ Business condition

We have maintained the top position in the overall TV market for sixteen straight years since claiming the number one spot in 2006.

In 2018, we released world’s first 8K TV in the global market, once again leading the premium segment in the TV industry. Our QLED lineup includes sizes ranging from mid-sized to ultra-large screens, giving customers a variety of choices. In addition, the significantly improved picture quality was well received by consumers and experts alike. We achieved solid results by introducing ultra-large screens in the UHD lineup as well as in the QLED lineup.

In 2020, we enhanced our leadership and dominance in the market with 4K and 8K QLED TVs and new Lifestyle TVs such as The Terrace, The Premiere and The Sero despite a global economic crisis due to COVID-19.

In 2021, we expanded our premium product lineup by launching Neo QLED TVs featuring significantly upgraded contrast and picture quality. Moreover, the sales portion of Lifestyle products and sound bars is increasing, and a rising number of companies are participating in various smart ecosystems, including TV plus, home training, and games. Since 2021, we have been particularly strengthening our efforts toward becoming a more eco-friendly business, from raw materials to packaging, and we are enhancing accessibility to help the visually impaired and hard of hearing to conveniently use our products.

In 2022, we expect to increase our market share in the premium, ultra-large, over 75” TV market centering on innovative Neo QLED 8K technologies and further reinforce our Lifestyle TV lineups by introducing The Freestyle. We will actively adopt eco-friendly technology and apply materials recycled from plastic recovered from the ocean in some of our products, and we are aiming to adopt an eco-friendly remote control to all models of new products.

Furthermore, SEC has always been at forefront of the HHP market, and for smartphones in particular, we have maintained leadership in the global market for eleven consecutive years.

To solidify our status in the overall mobile market, we are striving to improve our current products—including tablets, wearables, and accessories—while growing businesses in areas with high potential, such as the service, online, and B2B sectors.

For smartphones, we are establishing optimal portfolios for each region, accounting for varying market conditions and the competitive environment, offering a wide smartphone lineup ranging from mass-market to premium devices. We have been providing premium smartphones and delivering differentiated user experiences that can meet customer needs via our cutting-edge technology, which includes Dynamic AMOLED 2X (120Hz) displays and innovative Contour Cut designs as well as large-screen Infinity Displays, digital key and content sharing using UWB (ultra wideband), water- and dust-proofing, high-speed cable and wireless charging, ultrasonic fingerprint-on-display (FoD), high-resolution and optical zoom camera with AI technology, 8k video recording, among others. In 2019, we secured early leadership in the 5G market with the release of the world's first 5G smartphone while also creating a new market with Galaxy Fold, enabled by foldable displays. In 2020, we continued to lead the mainstreaming of foldable phones with the launch of Galaxy Z Flip, a new form factor that folds from top down, and a further evolved edition Galaxy Z Fold 2.

In 2021, we released the third generation Galaxy Z Series with significantly enhanced durability based on unrivaled craftsmanship. Galaxy Z Fold 3 and Galaxy Z Flip 3 provide the ultimate user experience by offering increased convenience and more innovative technologies, including IPX8 water resistance—a first for a foldable smartphone—enhanced display durability of up to 80% compared to the previous generation, verified folding durability to withstand folding 200,000 times, an under display camera, multitasking, Multi Active Window, auto framing, and Dual Preview.

To respond to an ever-changing market as well as customer needs, we are strengthening product competitiveness by introducing innovative features such as 5G, quad cameras, large infinity displays, and high-capacity batteries even to mid-range-and-below products.

We provide our smartphone users with a wider and more convenient experience via our other products, which include premium tablets that feature multitasking of large-screen display, wearable devices, including smart watches equipped with innovative fitness and wellness functions, wireless earphones that provide rich and quality sound, and other various Galaxy Eco products, including wireless quick charging stands.

Not content to dwell on our achievements in hardware, we have been focusing on delivering new and helpful services like Samsung Pay, Samsung Health, and SmartThings. To deliver a consistent and high-quality Multi-Device Experience, we are adding Bixby features to a suite of products in addition to smartphones, including TVs, refrigerators, air conditioners, etc.

Moreover, we are strengthening strategic partnerships to expand our ecosystem. As always, we will continue to invest in any field that has growth potential, with current targets including but not limited to 5G, AI, IoT, cloud, AR, digital wallet, and mobile B2B, while also leveraging our superior R&D capabilities to keep delivering new value to customers.

[DS Division]

□ Industry overview

In general, our Semiconductor business is divided into Memory (storage) and System LSI (logical processing). Memory semiconductor is divided into RAM products (random access memory, ones that can be both written on and read) and ROM products (read only memory).

RAM is called volatile memory as the information is deleted when the power is turned off. It is used for temporary loading and storage of application programs. ROM is nonvolatile and holds memory even when power is removed; it is used in input/output system, IC cards, and more.

For System LSI products, there are many categories for various applications. SoCs for mobile devices that are equipped with CPUs, GPUs, ISPs (image signal processors), and modems are our major products. The Company manufactures mobile SoCs for smartphones and tablets, image sensors, and DDIs (display driver ICs) for OLED.

The Foundry Business makes customized semiconductors for other companies based on customer designs. The business resembles OEMs in the traditional manufacturing industry in the sense that companies consign the manufacturing of their products to fabrication plants, also called foundries or fabs. Due to increasing difficulty in semiconductor process and growing investment cost, the number of fabless semiconductor companies is growing, and the Foundry Business is in charge of consignment semiconductor production for such fabless companies.

□ Market condition

For the memory market, PC and mobile memory demand was sluggish amid impacts of weak consumer sentiment triggered by global economic issues such as inflation and interest rate hikes, but we achieved revenue growth by actively addressing high-density server memory demand resulting from an increased portion of high-core CPUs.

However, market conditions are marked by persisting uncertainties due to possible volatility in IT demand triggered by concerns over aggravated macro risks—including the prolonged Russia-Ukraine war, a resurgence of Covid-19, and worsening inflation—combined with effects of global supply chain disruptions.

The Company is endeavoring to bolster market competitiveness by leveraging its dominant position in product competitiveness via releases of differentiated, high-capacity products; and it is addressing customer demand in a timely manner by preemptively identifying various issues, including supply chain disruptions that may affect customer demand, to respond to uncertain market conditions.

< Market share of DRAM >

Product	1H22	2021	2020
DRAM	43.5%	43.0%	42.7%

Global market share in revenue; data from research firm *DRAMeXchange*.

□ Business condition

In the memory business, we continue to maintain cost competitiveness via our leadership in technology, operate a product portfolio centered on high-value/high-capacity products, and strengthen product competitiveness and our capabilities to supply products that customers want in a timely manner.

We established a lineup of mass-produced, next-generation DRAM featuring the application of multi-layer EUV, and by strengthening production and cost competitiveness with advanced products, including SSDs with 7th-generation V-NAND, we will further solidify our leadership position in next-generation growth sectors.

System LSI is increasing its supply capabilities by strengthening the supply chain (e.g., diversifying suppliers) in response to a global chip shortage and volatile component demand from customers; and it is strengthening product competitiveness via stronger cooperation with customers, an increased workforce, and advanced development of next-generation products.

In the Foundry business, our expectations of continued high growth are likely to be partly lowered due to a declining trend

in demand for finished products (such as smartphones and PCs) that is related to a global economic slowdown amid factors such as the Russia-Ukraine war, lockdowns in China, and inflation. However, we anticipate achieving long-term growth on the backs of a continued rise in penetration of mobile 5G, an increased CPU portion, and solid demand for new growth engines, such as datacenter and automotive products.

[SDC]

□ Industry overview

Display refers to screens in electronic devices. Active matrix technology is most commonly used in displays, including OLED (organic light emitting diode) panels and TFT-LCD (thin film transistor liquid crystal display).

OLED panels use organic materials, which offer sharp contrast and color, high color gamut, and fast response rates. Such differentiating features provide advantages for use in smartphones where display features (multimedia contents, online experience, etc.) are important, and as a result, OLED adoption in the smartphone market is growing rapidly.

The market had raised concerns over the production of high-resolution, durable panels, but we overcame various technological challenges and advanced the business. OLED panels make up for the shortcomings of LCD panels, and they can be adopted in other applications such as foldable, rollable, and automotive. Growth of the OLED market is widely expected to keep accelerating.

A TFT-LCD panel is a liquid crystal based display that features a thinner and lighter profile while offering high resolution. It has a wide range of potential applications in devices of all sizes and functionality, from portable mobile devices to large-size TVs featuring bright, high-resolution images. The market for large-panel TFT-LCD grew rapidly as their use moved from laptops initially to monitors and then to TVs. Recently however, high saturation has caused growth to slow.

□ Market condition

The smartphone display-panel market is projected to decrease to 1.50 billion units in 2022 from 1.75 billion units in 2021 due to weakening consumer sentiment triggered by inflation. The market for smartphone-use OLED panels is expected remain at a similar size as last year, edging down from 0.62 billion units in 2021 to 0.61 billion units in 2022, and the OLED portion of smartphone panels is expected to increase from 35% in 2021 to 41% in 2022 (*Omdia*, July 2022).

The large display panel demand is anticipated to remain at a similar level, up marginally from 0.98 billion units in 2021 to 0.99 billion units in 2022 (*Omdia*, June 2022).

< Market share of smartphone panel >

Product	1H22	2021	2020
Smartphone panels	51.1%	51.4%	44.8%

Global market share in revenue; data for 1H22 is estimate from research firm *Omdia*.

□ Business condition

The Company has continued to stay atop the mobile OLED market in terms of market share since it successfully commercialized OLED products in 2007, marking a world's first. We diversified our product group to include displays for foldable products, tablets, watches, laptops, and automotive applications, solidifying our position as the top player in the OLED display market.

With both flexible and rigid OLED, our optimal smartphone product portfolio ranges from mass-market to premium devices as we proactively address customers' specific needs; and we are recognized as having best-in-class technology through our introduction of foldable and OLED IT products with differentiated technologies and designs.

In 2022, growth of smartphone market is projected to be limited amid ongoing uncertainties in the macro environment. We will expand the application of new technologies, such as UPC (under panel camera), high refresh rate, and tech related to energy efficiency and performance, in line with the needs of our customers while also enhancing cost competitiveness to continue to increase adoption of OLED panels. In addition, we will diversify our mobile panel business, which is currently concentrated on smartphones, by expanding our product portfolio to include IT, gaming, and automotive products, and

fortify our business leadership.

In the large panel business, we will expand our business by gradually increasing the sales of QD display with differentiated technology to ensure our products are representative of the premium market.

[Harman]

□ Industry overview

Harman competes in the automotive and lifestyle audio industries.

As consumers want cutting-edge technologies for automotive components (digital cockpit, telematics, car audio, etc.), car makers demand latest technologies in areas such as car sharing and autonomous driving. As a result, competition is particularly fierce in the connectivity and entertainment solution markets between dominant players (eg, Alpine, Aptiv, Continental, Mitsubishi, and Panasonic).

The car audio business provides not only system solutions but also audio components (including speakers and amplifiers), and it is another segment where fierce competition between several major players (eg, Bose, Pioneer, and Panasonic) is expected to drive technological advances as each firm introduces unique sound-management solutions. Competition is expected to remain intense.

Lifestyle audio business has two segments: consumer audio and professional audio solutions. Consumer audio (portable speakers, headphones, connected audio solutions, etc.) is fragmented and a handful of companies (Amazon, Beats, Bose, Ultimate Ears, etc.) are showing early signs of dominance. We expect competition to remain intense as new players try to make inroads, given the saturated market for connected homes and smart speakers. In particular, for True Wireless headphones, for which smartphone manufacturers dominate market share, is expected to grow explosively.

The professional audio solution industry (commercial audio, audio for large venues, etc., special lighting, video control solutions, etc.), led by QSC and Yamaha, is segmented by product and has seen the entrance of numerous companies offering a wide range of products and applications.

□ Market condition

The COVID-19 pandemic was projected to ease gradually into the end of 2022, but progress has been slower than expected, while business uncertainties have been mounting due to impacts of the Russia-Ukraine war. Against this backdrop, tightening monetary policies from central banks have increased economic risks, heightening risks of a slowdown over the next year.

In consideration of such factors, global automobile production in 2022 is forecasted to increase by 5% year-on-year (2022 IHS Global Light Vehicle Production Forecast).

< Market share of digital cockpit >

Product	1H22	2021	2020
Digital cockpits	24.8%	25.3%	27.5%

Digital cockpits refer to the digital automotive component which enables safe driving environment via infotainment system, etc.
Company estimates based on I.H.S and LMC data (by unit).

□ Business condition

Harman is positioned to stay atop the automotive market and plans to continue to leverage its wide variety of brands to outfit vehicles ranging from mass-market thorough to luxury models, while also maintaining the quality that is synonymous with Harman brands. Additionally, Harman's relentless pursuit of innovation in the audio and connectivity spaces will help ensure the development of thriving relationships with automakers.

Additionally, Harman has continued to develop its Connected Services business with industry leading OTA (Over the Air) and software servicing products.

The same factors that Harman relies on within the automotive market will also be used in the consumer audio and professional audio solution market. Having won three Grammy Awards and two Academy Awards, Harman's brands have

earned a strong reputation amongst everyday consumers and audiophiles alike. New offerings in up-and-coming segments such as connected wireless and smart audio continue to help bring in new consumers and further enhance brand reputation.

In 2020, the COVID-19 pandemic created a challenging business environment, marked by halt in automobile production, a decline in daily travel and thus potential consumers, the closing of retailers, etc. The professional audio solution business, in particular, had adverse impacts of a reduction in the number of large-scale gatherings and events. Harman has adopted various ways to reduce costs from the onset of the COVID-19 pandemic, and we will redirect savings to other investments to compete more effectively in the market.

D. Financial summary, by organization

In 1H22 by organization, DX accounted for 59.7% of net sales with reported net sales of KRW 92,524.0 billion. DS contributed approximately 35.7% with net sales of KRW 55,365.0 billion and SDC accounting for 10.1% with net sales of KRW 15,681.2 billion. Harman contributed 3.6%, reporting net sales of KRW 5,649.2 billion.

In 1H22, the DX Division accounted for 26.9% of total operating profit with an operating profit of KRW 7,577.2 billion; the DS Division accounted for 65.3% with KRW 18,431.2 billion; and SDC reported total operating profit of KRW 2,150.5 billion (7.6%). Harman posted an operating profit of KRW 203.2 billion (0.7%).

(KRW 100 mil)

Organization	Classification	1H22		2021		2020	
		Amount	Portion of corresponding total	Amount	Portion of corresponding total	Amount	Portion of corresponding total
DX Division	Net sales	925,240	59.7%	1,662,594	59.5%	1,489,135	62.9%
	Operating profit	75,772	26.9%	173,866	33.7%	151,520	42.1%
	Total assets	2,555,760	41.9%	2,479,832	42.0%	2,303,623	43.6%
DS Division	Net sales	553,650	35.7%	953,872	34.1%	740,540	31.3%
	Operating profit	184,312	65.3%	291,920	56.5%	188,062	52.2%
	Total assets	2,582,104	42.3%	2,258,223	38.3%	1,885,692	35.7%
SDC	Net sales	156,812	10.1%	317,125	11.3%	305,857	12.9%
	Operating profit	21,505	7.6%	44,574	8.6%	22,369	6.2%
	Total assets	685,047	11.2%	668,836	11.3%	661,929	12.5%
Harman	Net sales	56,492	3.6%	100,399	3.6%	91,837	3.9%
	Operating profit	2,032	0.7%	5,991	1.2%	555	0.2%
	Total assets	165,472	2.7%	158,874	2.7%	147,020	2.8%

Includes inter-divisional transactions.

Figures for 2020 and 2021 were adjusted to align with those of 2022, reflecting the organizational changes in December 2021.

□ Reasonable allocation of common SG&A (selling general & administrative) expenses and assets

(1) For common SG&A expenses, specific expenses that are allocable to a specific product/model are allocated to Divisions that are responsible for such product/model. However, common expenses that cannot be attributed to a specific product/model category are reasonably allocated throughout the Company based on an allocation standard (expense-to-sales ratio, number of personnel, etc.).

(2) For common assets, assets that can be directly allocated (inventory assets, fixed assets, investment assets, etc.) are allocated to the corresponding organizational unit. Assets that are commonly managed and cannot be directly allocated are allocated to each Division based on an allocation standard (expense-to-sales ratio, pre-tax profit, etc.).

III. Financial Affairs

1. Financial statements

A. Consolidated financial statements

Classification	(KRW mil)		
	First half of 54th	53rd	52nd
	June 30, 2022	December 31, 2021	December 31, 2020
Current assets	236,287,491	218,163,185	198,215,579
- Cash and cash equivalents	39,583,141	39,031,415	29,382,578
- Short-term financial instruments	84,428,822	81,708,986	92,441,703
- Other current financial assets	1,308,701	3,409,791	2,828,562
- Trade receivables	44,026,232	40,713,415	30,965,058
- Inventories	52,092,241	41,384,404	32,043,145
- Others	14,848,354	11,915,174	10,554,533
Non-current assets	211,753,159	208,457,973	180,020,139
- Other non-current financial assets	12,992,785	15,491,183	13,778,185
- Investment in associates and joint ventures	10,382,938	8,932,251	8,076,779
- Property, plant, and equipment	154,254,576	149,928,539	128,952,892
- Intangible assets	20,096,926	20,236,244	18,468,502
- Others	14,025,934	13,869,756	10,743,781
Total assets	448,040,650	426,621,158	378,235,718
Current liabilities	83,362,268	88,117,133	75,604,351
Non-current liabilities	36,771,718	33,604,094	26,683,351
Total liabilities	120,133,986	121,721,227	102,287,702
Equity attributable to owners of the parent company	318,830,612	296,237,697	267,670,331
- Capital stock	897,514	897,514	897,514
- Share premium	4,403,893	4,403,893	4,403,893
- Retained earnings	310,216,785	293,064,763	271,068,211
- Others	3,312,420	-2,128,473	-8,699,287
Non-controlling interests	9,076,052	8,662,234	8,277,685
Total Equity	327,906,664	304,899,931	275,948,016
	Jan-Jun 2022	Jan-Dec 2021	Jan-Dec 2020
Revenue	154,985,105	279,604,799	236,806,988
Operating profit	28,218,454	51,633,856	35,993,876
Profit for the period	22,423,433	39,907,450	26,407,832
- Owners of the parent company	22,083,609	39,243,791	26,090,846
- Non-controlling interests	339,824	663,659	316,986
Basic earnings per share (KRW)	3,251	5,777	3,841
Diluted earnings per share (KRW)	3,251	5,777	3,841
Number of companies subject to consolidation accounting	234	229	242

Data shown in conformity with K-IFRS.

Please refer to the footnotes of the 51st-53rd Consolidated Audit Report and 54th Consolidated Review Report for the calculation of basic earnings per share (ordinary shares).

B. Separate financial statements

(KRW mil)

Classification	First half of 54th	53rd	52nd
	June 30, 2022	December 31, 2021	December 31, 2020
Current assets	76,194,477	73,553,416	73,798,549
- Cash and cash equivalents	3,079,118	3,918,872	989,045
- Short-term financial instruments	13,104,200	15,000,576	29,101,284
- Trade receivables	32,463,228	33,088,247	24,736,740
- Inventories	21,390,252	15,973,053	13,831,372
- Others	6,157,679	5,572,668	5,140,108
Non-current assets	182,776,820	177,558,768	155,865,878
- Other non-current financial assets	1,504,914	1,664,667	1,542,766
- Subsidiary, associate, and joint venture investments	57,362,214	56,225,599	56,587,548
- Property, plant and equipment	108,381,976	103,667,025	86,166,924
- Intangible assets	8,181,534	8,657,456	7,002,648
- Others	7,346,182	7,344,021	4,565,992
Total assets	258,971,297	251,112,184	229,664,427
Current liabilities	50,310,861	53,067,303	44,412,904
Non-current liabilities	4,745,989	4,851,149	1,934,799
Total liabilities	55,056,850	57,918,452	46,347,703
- Capital stock	897,514	897,514	897,514
- Share premium	4,403,893	4,403,893	4,403,893
- Retained earnings	199,712,456	188,774,335	178,284,102
- Others	-1,099,416	-882,010	-268,785
Total Equity	203,914,447	193,193,732	183,316,724
Evaluation method of subsidiary, associate, and joint venture investment securities	Cost methods	Cost methods	Cost methods
	Jan–Jun 2022	Jan–Dec 2021	Jan–Dec 2020
Revenue	115,365,546	199,744,705	166,311,191
Operating profit	19,310,709	31,993,162	20,518,974
Profit for the period	15,843,251	30,970,954	15,615,018
Basic earnings per share (KRW)	2,332	4,559	2,299
Diluted earnings per share (KRW)	2,332	4,559	2,299

Data shown in conformity with K-IFRS.

Please refer to the footnotes of the 51st–53rd Audit Report and 54th Review for the calculation of basic earnings per share (ordinary shares).

2. Consolidated financial statements

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	June 30, 2022 KRW	December 31, 2021 KRW	June 30, 2022 USD	December 31, 2021 USD
Assets					
Current assets					
Cash and cash equivalents	3, 25	39,583,141	39,031,415	32,136,681	31,688,747
Short-term financial instruments	3, 25	84,428,822	81,708,986	68,545,903	66,337,728
Short-term financial assets at amortized cost	3, 25	1,253,196	3,369,034	1,017,442	2,735,245
Short-term financial assets at fair value through profit or loss	3, 4, 25	55,505	40,757	45,063	33,090
Trade receivables	3, 25	44,026,232	40,713,415	35,743,929	33,054,326
Non-trade receivables	3, 25	5,690,479	4,497,257	4,619,975	3,651,224
Prepaid expenses		3,141,748	2,336,252	2,550,716	1,896,752
Inventories	5	52,092,241	41,384,404	42,292,545	33,599,087
Other current assets	3, 25	6,016,127	5,081,665	4,884,361	4,125,692
		236,287,491	218,163,185	191,836,615	177,121,891
Non-current assets					
Financial assets at fair value through other comprehensive income	3, 4, 25	11,610,592	13,965,839	9,426,384	11,338,557
Financial assets at fair value through profit or loss	3, 4, 25	1,382,193	1,525,344	1,122,172	1,238,393
Investment in associates and joint ventures	6	10,382,938	8,932,251	8,429,679	7,251,898
Property, plant and equipment	7	154,254,576	149,928,539	125,235,897	121,723,683
Intangible assets	8	20,096,926	20,236,244	16,316,252	16,429,361
Net defined benefit assets	11	2,131,474	2,809,590	1,730,497	2,281,044
Deferred income tax assets		5,114,332	4,261,214	4,152,214	3,459,586
Other non-current assets	3, 25	6,780,128	6,798,952	5,504,637	5,519,921
		211,753,159	208,457,973	171,917,732	169,242,443
Total assets		448,040,650	426,621,158	363,754,347	346,364,334

The above interim consolidated statements of financial position should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	June 30, 2022	December 31, 2021	June 30, 2022	December 31, 2021
		KRW	KRW	USD	USD
Liabilities and Equity					
Current liabilities					
Trade payables	3, 25	12,560,726	13,453,351	10,197,777	10,922,480
Short-term borrowings	3, 9, 25	12,989,188	13,687,793	10,545,636	11,112,818
Other payables	3, 25	13,659,750	15,584,866	11,090,051	12,653,010
Advances received	14	1,271,491	1,224,812	1,032,296	994,398
Withholdings	3, 25	762,316	1,294,052	618,908	1,050,612
Accrued expenses	3, 14, 25	27,243,067	27,928,031	22,118,047	22,674,154
Current income tax liabilities		6,067,653	6,749,149	4,926,194	5,479,486
Current portion of long-term liabilities	3, 9, 10, 25	952,811	1,329,968	773,566	1,079,772
Provisions	12	5,995,790	5,372,872	4,867,850	4,362,117
Other current liabilities	3, 14, 25	1,859,476	1,492,239	1,509,668	1,211,516
		83,362,268	88,117,133	67,679,993	71,540,363
Non-current liabilities					
Debentures	3, 10, 25	553,783	508,232	449,604	412,622
Long-term borrowings	3, 9, 25	2,943,208	2,866,156	2,389,526	2,326,969
Long-term other payables	3, 25	2,871,992	2,991,440	2,331,707	2,428,684
Net defined benefit liabilities	11	517,143	465,884	419,857	378,241
Deferred income tax liabilities		26,341,382	23,198,205	21,385,989	18,834,112
Long-term provisions	12	2,278,231	2,306,994	1,849,646	1,872,998
Other non-current liabilities	3, 14, 25	1,265,979	1,267,183	1,027,819	1,028,799
		36,771,718	33,604,094	29,854,148	27,282,425
Total liabilities		120,133,986	121,721,227	97,534,141	98,822,788

The above interim consolidated statements of financial position should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	June 30, 2022 KRW	December 31, 2021 KRW	June 30, 2022 USD	December 31, 2021 USD
Equity attributable to owners of the Company					
Preference shares	15	119,467	119,467	96,993	96,993
Ordinary shares	15	778,047	778,047	631,679	631,679
Share premium		4,403,893	4,403,893	3,575,424	3,575,424
Retained earnings	16	310,216,785	293,064,763	251,858,183	237,932,834
Other components of equity	17	3,312,420	(2,128,473)	2,689,281	(1,728,060)
		318,830,612	296,237,697	258,851,560	240,508,870
Non-controlling interests		9,076,052	8,662,234	7,368,646	7,032,676
Total equity		327,906,664	304,899,931	266,220,206	247,541,546
Total liabilities and equity		448,040,650	426,621,158	363,754,347	346,364,334

The above interim consolidated statements of financial position should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF PROFIT OR LOSS

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	For the three-month periods ended June 30,				For the six-month periods ended June 30,			
		2022	2021	2022	2021	2022	2021	2022	2021
		KRW	KRW	USD	USD	KRW	KRW	USD	USD
Revenue	26	77,203,607	63,671,585	62,679,911	51,693,559	154,985,105	129,060,088	125,828,997	104,781,047
Cost of sales	18	46,269,748	37,065,931	37,565,391	30,093,014	93,341,805	78,565,916	75,782,158	63,785,939
Gross profit		30,933,859	26,605,654	25,114,520	21,600,545	61,643,300	50,494,172	50,046,839	40,995,108
Selling and administrative expenses	18, 19	16,836,814	14,038,909	13,669,439	11,397,881	33,424,846	28,544,559	27,136,897	23,174,700
Operating profit	26	14,097,045	12,566,745	11,445,081	10,202,664	28,218,454	21,949,613	22,909,942	17,820,408
Other non-operating income	20	463,971	740,668	376,688	601,332	1,164,164	1,040,410	945,159	844,686
Other non-operating expense	20	600,393	876,896	487,446	711,933	1,053,503	1,201,136	855,315	975,177
Share of net profit of associates and joint ventures	6	259,229	187,487	210,462	152,217	491,706	335,006	399,205	271,984
Financial income	21	5,371,885	1,787,143	4,361,315	1,450,942	8,874,074	4,025,781	7,204,665	3,268,443
Financial expense	21	5,130,979	1,522,717	4,165,729	1,236,260	8,164,297	3,516,599	6,628,413	2,855,049
Profit before income tax		14,460,758	12,882,430	11,740,371	10,458,962	29,530,598	22,633,075	23,975,243	18,375,295
Income tax expense	22	3,361,953	3,247,944	2,729,495	2,636,935	7,107,165	5,856,904	5,770,151	4,755,091
Profit for the period		11,098,805	9,634,486	9,010,876	7,822,027	22,423,433	16,776,171	18,205,092	13,620,204
Profit attributable to:									
Owners of the parent company		10,954,515	9,450,676	8,893,730	7,672,796	22,083,609	16,543,462	17,929,196	13,431,273
Non-controlling interests		144,290	183,810	117,146	149,231	339,824	232,709	275,896	188,931
Earnings per share (in Korean won, in US dollars)	23								
- Basic		1,613	1,391	1.31	1.13	3,251	2,435	2.64	1.98
- Diluted		1,613	1,391	1.31	1.13	3,251	2,435	2.64	1.98

The above interim consolidated statements of profit or loss should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	For the three-month periods ended June 30,				For the six-month periods ended June 30,			
		2022	2021	2022	2021	2022	2021	2022	2021
		KRW	KRW	USD	USD	KRW	KRW	USD	USD
Profit for the period		11,098,805	9,634,486	9,010,876	7,822,027	22,423,433	16,776,171	18,205,092	13,620,204
Other comprehensive income (loss)									
Items that will not be reclassified subsequently to profit or loss:									
Gain (Loss) on valuation of financial assets at fair value through other comprehensive income, net of tax	17	(1,195,764)	214,593	(970,814)	174,223	(1,799,944)	2,099,604	(1,461,335)	1,704,624
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	17	(15,627)	51,206	(12,687)	41,573	(11,875)	65,631	(9,641)	53,284
Remeasurement of net defined benefit liabilities (assets), net of tax	17	(34,481)	(21,191)	(27,994)	(17,205)	(97,369)	(53,930)	(79,052)	(43,785)
Items that may be reclassified subsequently to profit or loss:									
Share of other comprehensive income of associates and joint ventures, net of tax	17	295,429	95,580	239,852	77,599	34,846	41,659	28,291	33,822
Foreign currency translation, net of tax	17	4,919,214	1,012,987	3,993,802	822,423	7,356,247	3,470,252	5,972,375	2,817,421
Gain (loss) on valuation of cash flow hedge derivatives	17	1,567	(1,609)	1,272	(1,306)	7,909	27,476	6,420	22,307
Other comprehensive income for the period, net of tax		3,970,338	1,351,566	3,223,431	1,097,307	5,489,814	5,650,692	4,457,058	4,587,673
Total comprehensive income for the period		15,069,143	10,986,052	12,234,307	8,919,334	27,913,247	22,426,863	22,662,150	18,207,877
Comprehensive income attributable to:									
Owners of the parent company		14,890,896	10,845,374	12,089,591	8,805,121	27,498,046	22,066,553	22,325,058	17,915,349
Non-controlling interests		178,247	140,678	144,716	114,213	415,201	360,310	337,092	292,528

The above interim consolidated statements of comprehensive income should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In millions of Korean won)

2021 KRW	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Accumulated other comprehensive income attributable to assets held-for-sale	Equity attributable to owners of the parent company	Non-controlling interests	Total
Balance as of January 1, 2021		119,467	778,047	4,403,893	271,068,211	(8,687,155)	(12,132)	267,670,331	8,277,685	275,948,016
Profit for the period		-	-	-	16,543,462	-	-	16,543,462	232,709	16,776,171
Gain (Loss) on valuation of financial assets at fair value through other comprehensive income, net of tax		-	-	-	3,049,926	(1,043,480)	-	2,006,446	93,158	2,099,604
Share of other comprehensive income (loss) of associates and joint ventures, net of tax		-	-	-	-	120,984	-	120,984	(13,694)	107,290
Gain on overseas business translation, net of tax		-	-	-	-	3,422,051	-	3,422,051	48,201	3,470,252
Remeasurement of net defined benefit liabilities (assets), net of tax		-	-	-	-	(53,866)	-	(53,866)	(64)	(53,930)
Gain on valuation of cash flow hedge derivatives		-	-	-	-	27,476	-	27,476	-	27,476
Reclassification to assets held-for-sale		-	-	-	-	(12,132)	12,132	-	-	-
Total comprehensive income for the period		-	-	-	19,593,388	2,461,033	12,132	22,066,553	360,310	22,426,863
Dividends declared		-	-	-	(15,576,414)	-	-	(15,576,414)	(1,711)	(15,578,125)
Capital transactions under common control		-	-	-	-	-	-	-	59	59
Changes in consolidated entities		-	-	-	-	-	-	-	(477,307)	(477,307)
Other		-	-	-	-	56	-	56	4,704	4,760
Total transactions with owners		-	-	-	(15,576,414)	56	-	(15,576,358)	(474,255)	(16,050,613)
Balance as of June 30, 2021		119,467	778,047	4,403,893	275,085,185	(6,226,066)	-	274,160,526	8,163,740	282,324,266

The above interim consolidated statements of changes in equity should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In thousands of US dollars (Note 2.3))

2021 USD	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Accumulated other comprehensive income attributable to assets held-for-sale	Equity attributable to owners of the parent company	Non-controlling interests	Total
Balance as of January 1, 2021		96,993	631,679	3,575,424	220,074,318	(7,052,910)	(9,850)	217,315,654	6,720,470	224,036,124
Profit for the period		-	-	-	13,431,273	-	-	13,431,273	188,931	13,620,204
Gain (Loss) on valuation of financial assets at fair value through other comprehensive income, net of tax		-	-	-	2,476,168	(847,178)	-	1,628,990	75,634	1,704,624
Share of other comprehensive income (loss) of associates and joint ventures, net of tax		-	-	-	-	98,224	-	98,224	(11,118)	87,106
Gain on overseas business translation, net of tax		-	-	-	-	2,778,288	-	2,778,288	39,133	2,817,421
Remeasurement of net defined benefit liabilities (assets), net of tax		-	-	-	-	(43,733)	-	(43,733)	(52)	(43,785)
Gain on valuation of cash flow hedge derivatives		-	-	-	-	22,307	-	22,307	-	22,307
Reclassification to assets held-for-sale		-	-	-	-	(9,850)	9,850	-	-	-
Total comprehensive income for the period		-	-	-	15,907,441	1,998,058	9,850	17,915,349	292,528	18,207,877
Dividends declared		-	-	-	(12,646,148)	-	-	(12,646,148)	(1,389)	(12,647,537)
Capital transactions under common control		-	-	-	-	-	-	-	47	47
Changes in consolidated entities		-	-	-	-	-	-	-	(387,515)	(387,515)
Others		-	-	-	-	46	-	46	3,819	3,865
Total transactions with owners		-	-	-	(12,646,148)	46	-	(12,646,102)	(385,038)	(13,031,140)
Balance as of June 30, 2021		96,993	631,679	3,575,424	223,335,611	(5,054,806)	-	222,584,901	6,627,960	229,212,861

The above interim consolidated statements of changes in equity should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In millions of Korean won)

2022 KRW	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Accumulated other comprehensive income attributable to assets held-for-sale	Equity attributable to owners of the parent company	Non-controlling interests	Total
Balance as of January 1, 2022		119,467	778,047	4,403,893	293,064,763	(2,128,473)	-	296,237,697	8,662,234	304,899,931
Profit for the period		-	-	-	22,083,609	-	-	22,083,609	339,824	22,423,433
Loss on valuation of financial assets at fair value through other comprehensive income, net of tax	17	-	-	-	(26,456)	(1,756,494)	-	(1,782,950)	(16,994)	(1,799,944)
Share of other comprehensive income of associates and joint ventures, net of tax	17	-	-	-	-	22,729	-	22,729	242	22,971
Gain on overseas business translation, net of tax	17	-	-	-	-	7,264,141	-	7,264,141	92,106	7,356,247
Remeasurement of net defined benefit liabilities (assets), net of tax	17	-	-	-	-	(97,392)	-	(97,392)	23	(97,369)
Gain on valuation of cash flow hedge derivatives	17	-	-	-	-	7,909	-	7,909	-	7,909
Total comprehensive income for the period		-	-	-	22,057,153	5,440,893	-	27,498,046	415,201	27,913,247
Dividends declared		-	-	-	(4,905,131)	-	-	(4,905,131)	(1,457)	(4,906,588)
Capital transactions under common control		-	-	-	-	-	-	-	(404)	(404)
Others		-	-	-	-	-	-	-	478	478
Total transactions with owners		-	-	-	(4,905,131)	-	-	(4,905,131)	(1,383)	(4,906,514)
Balance as of June 30, 2022		119,467	778,047	4,403,893	310,216,785	3,312,420	-	318,830,612	9,076,052	327,906,664

The above interim consolidated statements of changes in equity should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(In thousands of US dollars (Note 2.3))

2022 USD	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Accumulated other comprehensive income attributable to assets held-for-sale	Equity attributable to owners of the parent company	Non-controlling interests	Total
Balance as of January 1, 2022		96,993	631,679	3,575,424	237,932,834	(1,728,060)	-	240,508,870	7,032,676	247,541,546
Profit for the period		-	-	-	17,929,196	-	-	17,929,196	275,896	18,205,092
Loss on valuation of financial assets at fair value through other comprehensive income, net of tax	17	-	-	-	(21,479)	(1,426,059)	-	(1,447,538)	(13,797)	(1,461,335)
Share of other comprehensive income of associates and joint ventures, net of tax	17	-	-	-	-	18,454	-	18,454	196	18,650
Gain on overseas business translation, net of tax	17	-	-	-	-	5,897,596	-	5,897,596	74,779	5,972,375
Remeasurement of net defined benefit liabilities (assets), net of tax	17	-	-	-	-	(79,070)	-	(79,070)	18	(79,052)
Gain on valuation of cash flow hedge derivatives	17	-	-	-	-	6,420	-	6,420	-	6,420
Total comprehensive income for the period		-	-	-	17,907,717	4,417,341	-	22,325,058	337,092	22,662,150
Dividends declared		-	-	-	(3,982,368)	-	-	(3,982,368)	(1,183)	(3,983,551)
Capital transactions under common control		-	-	-	-	-	-	-	(328)	(328)
Others		-	-	-	-	-	-	-	389	389
Total transactions with owners		-	-	-	(3,982,368)	-	-	(3,982,368)	(1,122)	(3,983,490)
Balance as of June 30, 2022		96,993	631,679	3,575,424	251,858,183	2,689,281	-	258,851,560	7,368,646	266,220,206

The above interim consolidated statements of changes in equity should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	For the six-month periods ended June 30,			
		2022	2021	2022	2021
		KRW	KRW	USD	USD
Operating activities					
Profit for the period		22,423,433	16,776,171	18,205,092	13,620,204
Adjustments	24	28,057,798	21,932,516	22,779,509	17,806,527
Changes in assets and liabilities arising from operating activities	24	(19,427,200)	(7,907,113)	(15,772,516)	(6,419,611)
Cash generated from operations		31,054,031	30,801,574	25,212,085	25,007,120
Interest received		706,755	686,093	573,799	557,024
Interest paid		(264,834)	(155,459)	(215,013)	(126,214)
Dividends received		229,806	202,632	186,574	164,512
Income tax paid		(7,136,623)	(5,645,305)	(5,794,067)	(4,583,299)
Net cash from operating activities		24,589,135	25,889,535	19,963,378	21,019,143
Investing activities					
Net decrease (increase) in short-term financial instruments		(906,942)	15,611,924	(736,326)	12,674,978
Net decrease in short-term financial assets at amortized cost		2,198,246	530,088	1,784,708	430,367
Net decrease (increase) in short-term financial assets at fair value through profit or loss		(14,748)	21,731	(11,974)	17,643
Disposal of long-term financial instruments		5,343,921	5,029,379	4,338,612	4,083,242
Acquisition of long-term financial instruments		(4,326,888)	(4,498,757)	(3,512,905)	(3,652,442)
Disposal of financial assets at fair value through other comprehensive income		484,094	2,625,165	393,025	2,131,314
Acquisition of financial assets at fair value through other comprehensive income		(15,385)	(910,232)	(12,491)	(738,997)
Disposal of financial assets at fair value through profit or loss		157,878	88,110	128,178	71,535
Acquisition of financial assets at fair value through profit or loss		(76,726)	(46,178)	(62,292)	(37,491)
Disposal of investment in associates and joint ventures		6,933	916	5,629	744
Acquisition of investment in associates and joint ventures		(903,758)	(28,600)	(733,741)	(23,220)
Disposal of property, plant and equipment		105,839	261,152	85,928	212,024
Acquisition of property, plant and equipment		(20,157,775)	(23,528,054)	(16,365,654)	(19,101,909)
Disposal of intangible assets		19,036	1,215	15,455	986
Acquisition of intangible assets		(1,576,361)	(1,586,894)	(1,279,813)	(1,288,364)
Cash outflow from business combinations		(31,383)	(5,926)	(25,479)	(4,811)
Cash inflow from sale of assets-held-for-sale		-	661,168	-	536,788
Cash inflow (outflow) from other investing activities		(235,248)	26,841	(190,993)	21,792
Net cash used in investing activities		(19,929,267)	(5,746,952)	(16,180,133)	(4,665,821)

The above interim consolidated statements of cash flows should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd. and its subsidiaries

INTERIM CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	For the six-month periods ended June 30,			
		2022	2021	2022	2021
		KRW	KRW	USD	USD
Financing activities					
Net decrease in short-term borrowings		(668,224)	(3,676,341)	(542,516)	(2,984,740)
Increase in long-term borrowings		73,224	-	59,449	-
Repayment of debentures and long-term borrowings		(955,802)	(390,466)	(775,995)	(317,011)
Dividends paid		(4,906,518)	(15,576,303)	(3,983,494)	(12,646,058)
Net increase (decrease) in non-controlling interests		(323)	173	(262)	140
Net cash used in financing activities		(6,457,643)	(19,642,937)	(5,242,818)	(15,947,669)
Reclassification to assets held-for-sale		-	139	-	113
Effect of foreign exchange rate changes		2,349,501	801,425	1,907,507	650,659
Net increase in cash and cash equivalents		551,726	1,301,210	447,934	1,056,425
Cash and cash equivalents					
Beginning of the period		39,031,415	29,382,578	31,688,747	23,855,069
End of the period		39,583,141	30,683,788	32,136,681	24,911,494

The above interim consolidated statements of cash flows should be read in conjunction with the accompanying notes.

3. Notes to consolidated financial statements

As of June 30, 2022 and December 31, 2021, and
for the six-month periods ended June 30, 2022 and 2021

1. General Information

1.1 Company Overview

Samsung Electronics Co., Ltd. (“SEC”) was incorporated under the laws of the Republic of Korea in 1969 and listed its shares on the Korea Stock Exchange in 1975. SEC and its subsidiaries (collectively referred to as the “Company”) operate four business divisions: DX, DS, SDC and Harman. DX (Device eXperience) division includes digital TVs, refrigerators, mobile phones and communication systems. DS (Device Solutions) division includes memory, foundry, and system LSI. SDC includes display panels products. Harman division includes connected car systems, audio and visual products, enterprise automation solutions and connected services. The Company is domiciled in the Republic of Korea and is located in Suwon, the Republic of Korea.

These consolidated financial statements have been prepared in accordance with Korean International Financial Reporting Standards (“Korean IFRS”) 1110, *Consolidated Financial Statements*. SEC, as the controlling company, consolidates its 233 subsidiaries, including Samsung Display and Samsung Electronics America. The Company also applies the equity method of accounting for its 39 associates and joint ventures, including Samsung Electro-Mechanics Co., Ltd.

1.2 Consolidated Subsidiaries

The consolidated subsidiaries as of June 30, 2022 are as follows:

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	Samsung Electronics America, Inc. (SEA)	Sale of electronic devices	100.0
	Samsung International, Inc. (SII)	Manufacture of electronic devices	100.0
	Samsung Mexicana S.A. de C.V (SAMEX)	Manufacture of electronic devices	100.0
	Samsung Electronics Home Appliances America, LLC (SEHA)	Manufacture of home appliances	100.0
	Samsung Research America, Inc. (SRA)	R&D	100.0
	Samsung Next LLC (SNX)	Management of overseas subsidiaries	100.0
	Samsung Next Fund LLC (SNXF)	Technology business, venture capital investments	100.0
America	NeuroLogica Corp.	Manufacture and sale of medical equipment	100.0
	Samsung HVAC America, LLC	Sale of air conditioning products	100.0
	Joyent, Inc.	Cloud services	100.0
	Dacor Holdings, Inc.	Management of overseas subsidiaries	100.0
	Dacor, Inc.	Manufacture and sale of home appliances	100.0
	Dacor Canada Co.	Sale of home appliances	100.0
	SmartThings, Inc.	Sale of smart home electronics	100.0
	TeleWorld Solutions, Inc. (TWS)	Installation & optimization of network devices	100.0

¹ Ownership represents the Company’s ownership of the voting rights in each entity, including subsidiaries’ ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	Samsung Semiconductor, Inc. (SSI)	Sale of semiconductor and display panels	100.0
	Samsung Austin Semiconductor LLC. (SAS)	Manufacture of semiconductors	100.0
	Samsung Oak Holdings, Inc. (SHI)	Management of overseas subsidiaries	100.0
	SEMES America, Inc.	Semiconductor equipment services	100.0
	Samsung Electronics Canada, Inc. (SECA)	Sale of electronic devices	100.0
	AdGear Technologies Inc.	Digital advertising platforms	100.0
	Samsung Electronica da Amazonia Ltda. (SEDA)	Manufacture and sale of electronic devices	100.0
	Samsung Electronics Mexico S.A. de C.V. (SEM)	Sale of electronic devices	100.0
	Samsung Electronics Digital Appliance Mexico, S.A. de C.V. (SEDAM)	Manufacture of home appliances	100.0
	Samsung Electronics Latinoamerica (Zona Libre), S. A. (SELA)	Sale of electronic devices	100.0
	Samsung Electronics Latinoamerica Miami, Inc. (SEMI)	Sale of electronic devices	100.0
	Samsung Electronica Colombia S.A. (SAMCOL)	Sale of electronic devices	100.0
	Samsung Electronics Argentina S.A. (SEASA)	Marketing and services	100.0
	Samsung Electronics Chile Limitada (SECH)	Sale of electronic devices	100.0
	Samsung Electronics Peru S.A.C. (SEPR)	Sale of electronic devices	100.0
America	Samsung Electronics Venezuela, C.A. (SEVEN)	Marketing and services	100.0
	Samsung Electronics Panama. S.A. (SEPA)	Consulting	100.0
	Harman International Industries, Inc.	Holding company	100.0
	Harman Becker Automotive Systems, Inc.	Manufacture and sale of audio products, R&D	100.0
	Harman Connected Services, Inc.	Connected service provider	100.0
	Harman Connected Services Engineering Corp.	Connected service provider	100.0
	Harman da Amazonia Industria Eletronica e Participacoes Ltda.	Manufacture and sale of audio products	100.0
	Harman de Mexico, S. de R.L. de C.V.	Manufacture of audio products	100.0
	Harman do Brasil Industria Eletronica e Participacoes Ltda.	Sale of audio products, R&D	100.0
	Harman Financial Group LLC	Management company	100.0
	Harman International Industries Canada Ltd.	Sale of audio products	100.0
	Harman International Mexico, S. de R.L. de C.V.	Sale of audio products	100.0
	Harman KG Holding, LLC	Management of overseas subsidiaries	100.0
	Harman Professional, Inc.	Sale of audio products, R&D	100.0
	Beijing Integrated Circuit Industry International Fund, L.P	Venture capital investments	61.4
	China Materialia New Materials 2016 Limited Partnership	Venture capital investments	99.0

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
Europe/CIS	Samsung Electronics (UK) Ltd. (SEUK)	Sale of electronic devices	100.0
	Samsung Electronics Ltd. (SEL)	Management of overseas subsidiaries	100.0
	Samsung Semiconductor Europe Limited (SSEL)	Sale of semiconductor and display panels	100.0
	Samsung Electronics GmbH (SEG)	Sale of electronic devices	100.0
	Samsung Electronics Holding GmbH (SEHG)	Management of overseas subsidiaries	100.0
	Samsung Semiconductor Europe GmbH (SSEG)	Sale of semiconductor and display panels	100.0
	Samsung Electronics France S.A.S (SEF)	Sale of electronic devices	100.0
	Samsung Electronics Italia S.P.A. (SEI)	Sale of electronic devices	100.0
	Samsung Electronics Iberia, S.A. (SESA)	Sale of electronic devices	100.0
	Samsung Electronics Portuguesa, Unipessoal, Lda. (SEP)	Sale of electronic devices	100.0
	Samsung Electronics Hungarian Private Co., Ltd. (SEH)	Manufacture and sale of electronic devices	100.0
	Samsung Electronics Europe Logistics B.V. (SELS)	Logistics	100.0
	Samsung Electronics Benelux B.V. (SEBN)	Sale of electronic devices	100.0
	Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	Management of overseas subsidiaries	100.0
	Samsung Electronics Nordic Aktiebolag (SENA)	Sale of electronic devices	100.0
	Samsung Electronics Slovakia s.r.o. (SESK)	Manufacture of TV and monitors	100.0
	Samsung Display Slovakia s.r.o. (SDSK)	Toll processing of display panels	100.0
	Samsung Electronics Polska, SP.Zo.o (SEPOL)	Sale of electronic devices	100.0
	Samsung Electronics Poland Manufacturing SP.Zo.o (SEPM)	Manufacture of home appliances	100.0
	Samsung Electronics Romania LLC (SEROM)	Sale of electronic devices	100.0
	Samsung Electronics Austria GmbH (SEAG)	Sale of electronic devices	100.0
	Samsung Electronics Switzerland GmbH (SESG)	Sale of electronic devices	100.0
	Samsung Electronics Czech and Slovak s.r.o. (SECZ)	Sale of electronic devices	100.0
	Samsung Electronics Baltics SIA (SEB)	Sale of electronic devices	100.0
	Samsung Electronics Greece S.M.S.A (SEGR)	Sale of electronic devices	100.0
	Samsung Electronics Air Conditioner Europe B.V. (SEACE)	Sale of air conditioning products	100.0
	Samsung Nanoradio Design Center (SNDC)	R&D	100.0
	Samsung Denmark Research Center ApS (SDRC)	R&D	100.0
	Samsung Cambridge Solution Centre Limited (SCSC)	R&D	100.0
	Zhilabs, S.L.	Development and sale of network solutions	100.0
	Foodient Ltd.	R&D	100.0
	Samsung Electronics Rus Company LLC (SERC)	Sale of electronic devices	100.0
	Samsung Electronics Rus Kaluga LLC (SERK)	Manufacture of TV	100.0
	Samsung Electronics Ukraine Company LLC (SEUC)	Sale of electronic devices	100.0
Samsung R&D Institute Ukraine (SRUKR)	R&D	100.0	
Samsung Electronics Central Eurasia LLP (SECE)	Sale of electronic devices	100.0	
Samsung Electronics Overseas B.V. (SEO)	Sale of electronic devices	100.0	
Samsung R&D Institute Rus LLC (SRR)	R&D	100.0	
Samsung Electronics Caucasus Co., Ltd. (SECC)	Marketing	100.0	
Samsung Electronics Uzbekistan Ltd. (SEUZ)	Marketing	100.0	

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	AKG Acoustics GmbH	Manufacture and sale of audio products	100.0
	Apostera GmbH	Connected Service Provider	100.0
	Apostera UA, LLC	Connected Service Provider	100.0
	Harman Audio Iberia Espana Sociedad Limitada	Sale of audio products	100.0
	Harman Automotive UK Limited	Manufacture of audio products	100.0
	Harman Becker Automotive Systems GmbH	Manufacture and sale of audio products, R&D	100.0
	Harman Becker Automotive Systems Italy S.R.L.	Sale of audio products	100.0
	Harman Becker Automotive Systems Manufacturing Kft	Manufacture of audio products, R&D	100.0
	Harman Belgium SA	Sale of audio products	100.0
	Harman Connected Services AB.	Connected service provider	100.0
	Harman Finland Oy	Connected service provider	100.0
	Harman Connected Services GmbH	Connected service provider	100.0
	Harman Connected Services Poland Sp.zoo	Connected service provider	100.0
	Harman Connected Services UK Ltd.	Connected service provider	100.0
	Harman Consumer Nederland B.V.	Sale of audio products	100.0
	Harman Deutschland GmbH	Sale of audio products	100.0
Europe/CIS	Harman Finance International GP S.a.r.l	Management of overseas subsidiaries	100.0
	Harman France SNC	Sale of audio products	100.0
	Harman Holding GmbH & Co. KG	Management company	100.0
	Harman Hungary Financing Ltd.	Financing company	100.0
	Harman Inc. & Co. KG	Management of overseas subsidiaries	100.0
	Harman International Estonia OU	R&D	100.0
	Harman International Industries Limited	Sale of audio products, R&D	100.0
	Harman International Romania SRL	R&D	100.0
	Harman Finance International, SCA	Financing company	100.0
	Harman International s.r.o.	Manufacture of audio products	100.0
	Harman Management GmbH	Management of overseas subsidiaries	100.0
	Harman Professional Kft	Manufacture of audio products, R&D	100.0
	Harman Professional Denmark ApS	Sale of audio products, R&D	100.0
	Red Bend Software Ltd.	Software design	100.0
	Red Bend Software S.A.S	Software design	100.0
	Studer Professional Audio GmbH	Sale of audio products, R&D	100.0
	Harman Connected Services OOO	Connected service provider	100.0
	Harman RUS CIS LLC	Sale of audio products	100.0

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
Middle East & Africa	Samsung Gulf Electronics Co., Ltd. (SGE)	Sale of electronic devices	100.0
	Samsung Electronics Turkey (SETK)	Sale of electronic devices	100.0
	Samsung Electronics Industry and Commerce Ltd. (SETK-P)	Manufacture of electronic devices	100.0
	Samsung Electronics Levant Co.,Ltd. (SELV)	Sale of electronic devices	100.0
	Samsung Electronics Maghreb Arab (SEMAG)	Sale of electronic devices	100.0
	Samsung Electronics Egypt S.A.E (SEEG)	Manufacture and sale of electronic devices	100.0
	Samsung Electronics Israel Ltd. (SEIL)	Marketing	100.0
	Samsung Electronics Tunisia S.A.R.L (SETN)	Marketing	100.0
	Samsung Electronics Pakistan (Private) Ltd. (SEPAK)	Marketing	100.0
	Samsung Electronics Saudi Arabia Ltd. (SESAR)	Sale of electronic devices	100.0
	Samsung Semiconductor Israel R&D Center, Ltd. (SIRC)	R&D	100.0
	Corephotonics Ltd.	R&D	100.0
	Samsung Electronics South Africa (Pty) Ltd. (SSA)	Sale of electronic devices	100.0
	Samsung Electronics South Africa Production (Pty) Ltd. (SSAP)	Manufacture of TV and monitors	100.0
	Samsung Electronics West Africa Ltd. (SEWA)	Marketing	100.0
	Samsung Electronics East Africa Ltd. (SEEA)	Marketing	100.0
	Global Symphony Technology Group Private Ltd.	Management of overseas subsidiaries	100.0
	Harman Connected Services Morocco	Connected service provider	100.0
	Harman Industries Holdings Mauritius Ltd.	Management of overseas subsidiaries	100.0
	Red Bend Ltd.	Manufacture of audio products	100.0
Asia (Excluding China)	Samsung Asia Pte. Ltd. (SAPL)	Management of overseas subsidiaries	100.0
	Samsung Electronics Singapore Pte. Ltd. (SESP)	Sale of electronic devices	100.0
	Samsung Malaysia Electronics (SME) Sdn. Bhd. (SME)	Sale of electronic devices	100.0
	Samsung Electronics Display (M) Sdn. Bhd. (SDMA)	Manufacture of electronic devices	100.0
	Samsung Electronics (M) Sdn. Bhd. (SEMA)	Manufacture of home appliances	100.0
	Samsung Vina Electronics Co., Ltd. (SAVINA)	Sale of electronic devices	100.0
	Samsung Electronics Vietnam Co., Ltd. (SEV)	Manufacture of electronic devices	100.0
	Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	Manufacture of communication equipment	100.0
	Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	Manufacture and sale of electronic devices	100.0
	Samsung Display Vietnam Co., Ltd. (SDV)	Manufacture of display panels	100.0
	Dowooinsys Vina Company Limited	Manufacture of display components	100.0
	PT Samsung Electronics Indonesia (SEIN)	Manufacture and sale of electronic devices	100.0
	PT Samsung Telecommunications Indonesia (STIN)	Sale of electronic devices and services	100.0
	Thai Samsung Electronics Co., Ltd. (TSE)	Manufacture and sale of electronic devices	91.8
	Laos Samsung Electronics Sole Co., Ltd. (LSE)	Marketing	100.0
	Samsung Electronics Philippines Corporation (SEPCO)	Sale of electronic devices	100.0
	Samsung Electronics Australia Pty. Ltd. (SEAU)	Sale of electronic devices	100.0
	Samsung Electronics New Zealand Limited (SENZ)	Sale of electronic devices	100.0
	Samsung India Electronics Private Ltd. (SIEL)	Manufacture and sale of electronic devices	100.0
	Red Brick Lane Marketing Solutions Pvt. Ltd.	Marketing	100.0
	Samsung Display Noida Private Limited (SDN)	Manufacture of display panels	100.0
	Samsung R&D Institute India-Bangalore Private Limited (SRI-B)	R&D	100.0
	Samsung R&D Institute BanglaDesh Limited (SRBD)	R&D	100.0
	Samsung Nepal Services Pvt. Ltd. (SNSL)	Service	100.0
	Samsung Japan Corporation (SJC)	Sale of semiconductor and display panels	100.0

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
Asia (Excluding China)	Samsung R&D Institute Japan Co., Ltd. (SRJ)	R&D	100.0
	Samsung Electronics Japan Co., Ltd. (SEJ)	Sale of electronic devices	100.0
	Harman International Industries PTY Ltd.	Management of overseas subsidiaries	100.0
	Harman Connected Services Corp. India Pvt. Ltd.	Connected service provider	100.0
	Harman International (India) Private Limited	Sale of audio products, R&D	100.0
	Harman International Japan Co., Ltd.	Sale of audio products, R&D	100.0
	Harman Singapore Pte. Ltd.	Sale of audio products	100.0
China	Samsung (CHINA) Investment Co., Ltd. (SCIC)	Sale of electronic devices	100.0
	Samsung Electronics Hong Kong Co., Ltd. (SEHK)	Sale of electronic devices	100.0
	Samsung Electronics Taiwan Co., Ltd. (SET)	Sale of electronic devices	100.0
	Tianjin Samsung Electronics Co., Ltd. (TSEC)	Manufacture of TV and monitors	91.2
	Suzhou Samsung Electronics Co., Ltd. (SSEC)	Manufacture of home appliances	88.3
	Samsung Suzhou Electronics Export Co., Ltd. (SSEC-E)	Manufacture of home appliances	100.0
	Samsung Electronics Suzhou Computer Co., Ltd. (SESC)	Manufacture of electronic devices, R&D	100.0
	Tianjin Samsung Telecom Technology Co., Ltd. (TSTC)	Manufacture of communication equipment	90.0
	Beijing Samsung Telecom R&D Center (SRC-Beijing)	R&D	100.0
	Samsung Electronics China R&D Center (SRC-Nanjing)	R&D	100.0
	Samsung Mobile R&D Center China-Guangzhou (SRC-Guangzhou)	R&D	100.0
	Samsung R&D Institute China-Shenzhen (SRC-Shenzhen)	R&D	100.0
	Shanghai Samsung Semiconductor Co., Ltd. (SSS)	Sale of semiconductor and display panels	100.0
	Samsung (China) Semiconductor Co., Ltd. (SCS)	Manufacture of semiconductors	100.0
	Samsung SemiConductor Xian Co., Ltd. (SSCX)	Sale of semiconductor and display panels	100.0
	Samsung Electronics Suzhou Semiconductor Co., Ltd. (SESS)	Toll processing of semiconductors	100.0
	Tianjin Samsung LED Co., Ltd. (TSLED)	Manufacture of LED	100.0
	Samsung Semiconductor (China) R&D Co., Ltd. (SSCR)	R&D	100.0
	Samsung Display Dongguan Co., Ltd. (SDD)	Manufacture of display panels	100.0
	Samsung Display Tianjin Co., Ltd. (SDT)	Manufacture of display panels	95.0
	SEMES (XIAN) Co., Ltd.	Semiconductor equipment services	100.0
	Samsung Semiconductor Investment L.P. I	Technology business, Venture capital investments	99.0
	Harman (China) Technologies Co., Ltd.	Manufacture of audio products	100.0
	Harman (Suzhou) Audio and Infotainment Systems Co., Ltd.	Sale of audio products	100.0
	Harman Automotive Electronic Systems (Suzhou) Co., Ltd.	Manufacture of audio products, R&D	100.0
	Harman Commercial (Shanghai) Co., Ltd.	Sale of audio products	100.0
	Harman Connected Services Solutions (Chengdu) Co., Ltd.	Connected service provider	100.0
	Harman Holding Limited	Sale of audio products	100.0
	Harman International (China) Holdings Co., Ltd.	Sale of audio products, R&D	100.0
Harman Technology (Shenzhen) Co., Ltd.	Sale of audio products, R&D	100.0	

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹	
	Samsung Display Co., Ltd.	Manufacture and sale of display panels	84.8	
	SU Materials	Manufacture of display components	50.0	
	STECO Co., Ltd.	Manufacture of semiconductor components	70.0	
	SEMES Co., Ltd.	Manufacture and sale of semiconductor/FPD	91.5	
	Samsung Electronics Service Co., Ltd.	Repair services for electronic devices	99.3	
	Samsung Electronics Service Customer Satisfaction Co., Ltd.	Call center for repair services for electronic devices	100.0	
	Samsung Electronics Sales Co., Ltd.	Sale of electronic devices	100.0	
	Samsung Electronics Logitech Co., Ltd.	General logistics agency	100.0	
	Samsung Medison Co., Ltd.	Manufacture and sale of medical equipment	68.5	
	Mirero System Co., Ltd.	Development and supply of semiconductor process defect and quality control software	99.9	
	Dowooinsys Co., Ltd.	Manufacture of display components	69.0	
	Gf-System Co., Ltd.	Manufacture of display components	100.0	
	Harman International Korea	Software development and supply, etc.	100.0	
Domestic	Samsung Venture Capital Union #21	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #22	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #26	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #28	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #29	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #32	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #33	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #37	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #40	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #42	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #43	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #45	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #48	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #52	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #55	Technology business, Venture capital investments	99.0	
	Samsung Venture Capital Union #56	Technology business, Venture capital investments	99.0	
		Growth type private equity trust specialized in semiconductors	Investment on semiconductor industry	66.7
		System LSI Mutual benefit private equity trust	Investment on semiconductor industry	62.5

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

1.3 Summary of Financial Data of Major Consolidated Subsidiaries

Summary of financial data of major consolidated subsidiaries is as follows:

(1) 2022

<i>(In millions of Korean won)</i>	June 30, 2022					
	As of June 30, 2022		For the three months period ended		For the six months period ended	
Major subsidiaries¹	Assets	Liabilities	Sales	Profit (loss)	Sales	Profit (loss)
Samsung Display	53,799,434	6,207,803	6,845,875	791,204	13,946,851	1,817,837
Samsung Electronics America, Inc. (SEA)	44,048,344	17,888,587	12,333,476	316,721	23,673,944	271,086
Samsung Asia Pte. Ltd. (SAPL)	20,338,336	1,745,237	-	2,505,351	-	2,516,913
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	18,965,597	2,852,795	9,983,377	971,650	20,552,811	1,934,576
Samsung (China) Semiconductor Co., Ltd. (SCS)	18,619,962	3,929,345	2,453,729	165,104	4,869,323	321,642
Harman and its subsidiaries ²	16,547,201	6,171,479	2,986,052	36,184	5,648,793	126,028
Samsung Semiconductor, Inc. (SSI)	16,142,783	9,750,204	12,742,094	33,503	23,653,098	75,744
Samsung (CHINA) Investment Co., Ltd. (SCIC)	14,581,271	10,466,764	528,784	(43,273)	1,361,932	63,608
Samsung Electronics Vietnam Co., Ltd. (SEV)	13,638,441	2,028,773	5,919,010	499,274	11,739,681	928,374
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	12,621,595	8,364,392	-	21,517	-	28,482
Samsung Austin Semiconductor LLC. (SAS)	9,354,178	920,799	836,674	(12,167)	1,625,295	(14,589)
Samsung India Electronics Private Ltd. (SIEL)	8,555,449	3,579,247	3,488,909	114,899	7,688,929	317,183
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	6,882,310	4,685,891	6,504,147	62,530	13,054,783	138,258
Samsung Display Vietnam Co., Ltd. (SDV)	6,835,074	1,909,662	5,142,739	56,185	10,814,792	187,691
Samsung Eletronica da Amazonia Ltda. (SEDA)	4,928,702	1,434,277	1,971,171	(45,838)	3,890,800	68,690
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	3,381,435	625,778	1,602,862	125,102	3,554,895	327,308
Samsung Electronics (UK) Ltd. (SEUK)	3,133,716	2,217,648	1,349,597	(24,169)	2,881,511	(5,105)
Thai Samsung Electronics Co., Ltd. (TSE)	3,109,372	487,673	1,297,116	22,286	2,711,163	5,686
Samsung International, Inc. (SII)	2,641,223	749,965	2,245,257	351,949	4,535,557	673,219
Samsung Electronics Europe Logistics B.V. (SELS)	2,631,017	2,169,234	3,663,321	60,139	8,262,182	300,226
Samsung Electronics Benelux B.V. (SEBN)	2,419,047	695,352	612,857	(13,563)	1,420,327	(6,661)
Samsung Electronics Hungarian Private Co., Ltd. (SEH)	2,265,841	399,955	881,554	42,573	2,205,901	123,503
Samsung Display Dongguan Co., Ltd. (SDD)	2,257,768	300,093	788,603	33,918	1,595,752	83,548
Samsung Electronics GmbH (SEG)	1,993,118	2,065,340	1,485,197	(75,712)	3,186,298	(133,174)
SEMES Co., Ltd.	1,971,759	574,931	740,885	54,932	1,466,317	128,901

¹ Summary of financial information is based on separate financial statements of each subsidiary.

² Consolidated financial data of an intermediate company that includes Harman International Industries, Inc. and its subsidiaries.

(2) 2021

June 30, 2021

<i>(In millions of Korean won)</i>	As of December 31, 2021		For the three months period ended		For the six months period ended	
	Assets	Liabilities	Sales	Profit (loss)	Sales	Profit (loss)
Major subsidiaries¹						
Samsung Display	54,967,156	9,081,737	6,355,181	1,005,746	12,413,332	1,017,568
Samsung Electronics America, Inc. (SEA)	42,982,054	19,246,751	9,317,000	525,279	18,913,228	728,862
Samsung (China) Semiconductor Co., Ltd. (SCS)	19,049,536	5,168,738	1,659,215	384,457	3,144,758	766,651
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	17,521,446	3,425,127	5,995,489	442,022	14,106,224	1,105,944
Harman and its subsidiaries ²	15,887,380	6,104,012	2,411,284	58,381	4,770,008	120,663
Samsung Asia Pte. Ltd. (SAPL)	14,683,789	58,381	-	2,257,086	-	2,273,905
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	14,651,496	8,998,502	-	9,776	-	10,689
Samsung Semiconductor, Inc. (SSI)	13,744,799	7,955,060	7,782,566	14,051	13,615,982	37,493
Samsung (CHINA) Investment Co., Ltd. (SCIC)	13,599,093	9,685,278	553,121	214,923	1,286,821	329,385
Samsung Electronics Vietnam Co., Ltd. (SEV)	13,023,272	2,085,411	4,091,453	385,054	9,447,735	877,440
Samsung Austin Semiconductor LLC. (SAS)	8,705,085	958,537	1,030,294	296,452	1,953,255	564,441
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	7,765,126	5,799,690	8,094,226	100,836	15,108,630	175,073
Samsung India Electronics Private Ltd. (SIEL)	7,765,019	3,236,745	1,945,212	13,832	5,404,547	206,737
Samsung Display Vietnam Co., Ltd. (SDV)	6,821,066	2,486,703	3,617,308	229,569	8,053,609	420,324
Samsung Eletronica da Amazonia Ltda. (SEDA)	4,589,505	1,671,097	1,402,834	140,264	2,934,040	282,192
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	3,129,104	919,721	1,818,069	119,993	3,586,130	199,329
Thai Samsung Electronics Co., Ltd. (TSE)	3,018,358	474,223	1,100,874	(23,233)	2,180,560	(30,596)
Samsung Electronics (UK) Ltd. (SEUK)	2,925,062	1,992,367	1,136,018	16,352	2,633,483	29
Samsung Electronics Benelux B.V. (SEBN)	2,612,357	766,034	538,948	131,394	1,268,273	136,646
Samsung Electronics Hungarian Private Co. Ltd. (SEH)	2,504,075	641,004	879,859	(7,903)	1,890,482	(32,452)
Samsung Electronics Europe Logistics B.V. (SELS)	2,305,275	2,144,805	3,295,257	99,465	7,387,221	597,657
Samsung Electronics GmbH (SEG)	2,289,391	2,228,650	1,425,439	(49,444)	3,199,904	(108,804)
Samsung Display Dongguan Co., Ltd. (SDD)	2,149,277	339,425	1,013,269	46,973	1,956,877	94,341
Samsung International, Inc. (SII)	2,125,719	1,041,168	1,765,245	59,685	3,033,326	110,307
Samsung Electronics Taiwan Co., Ltd. (SET)	2,033,992	1,459,353	1,496,305	6,537	2,720,285	11,537

¹ Summary of financial information is based on separate financial statements of each subsidiary.

² Consolidated financial data of an intermediate company that includes Harman International Industries, Inc. and its subsidiaries.

1.4 Changes in Consolidation Scope

Changes in consolidation scope during the six month period ended June 30, 2022 are as follows:

Change	Area	Subsidiary	Description
Included	Europe/CIS	Samsung R&D Institute Ukraine (SRUKR)	Establishment
		Samsung Electronics Uzbekistan Ltd. (SEUZ)	Establishment
		Apostera GmbH	Acquisition
		Apostera UA, LLC	Acquisition
	Asia (Excluding China)	Dowoinsys Vina Company Limited	Establishment
		Red Brick Lane Marketing Solutions Pvt. Ltd.	Acquisition
Excluded	Europe / CIS	AMX UK Limited	Liquidation

2. Significant Accounting Policies

2.1 Basis of Presentation

The Company 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 interim consolidated financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

The interim consolidated financial statements for the six-month period ended June 30, 2022, have been prepared in accordance with *Korean IFRS 1034, Interim Financial Reporting*. These interim consolidated financial statements have been prepared in accordance with the Korean IFRS which is effective as of June 30, 2022.

(A) New and amended standards adopted by the Company

The Company applied the following amended and enacted standards for the first time for their annual reporting periods commencing January 1, 2022:

Amendments to Korean IFRS 1116, Lease

The amendments to Korean IFRS 1116 introduced a practical expedient that provided practical relief to lessees in accounting for rent concessions occurring as a direct consequence of COVID-19. The amendments extend the practical expedient to apply to reduction in lease payments originally due on or before June 30, 2022. The application of amendments does not have a significant impact on the Company’s interim consolidated financial statements.

Amendments to Korean IFRS 1103, Business Combinations

The amendments update Korean IFRS 1103 so that it refers to the amended conceptual framework for financial reporting for assets and liabilities recognized upon business combination, along with adding requirement that for transactions and other events within the scope of IAS 37 or IFRIC 21, an acquirer applies IAS 37 or IFRIC 21 to identify the liabilities it has assumed in a business combination. The amendments also add an explicit statement that an acquirer does not recognise contingent assets acquired in a business combination. The application of amendments does not have a significant impact on the Company’s interim consolidated financial statements.

Amendments to Korean IFRS 1016, Property, Plant and Equipment

The amendments prohibit deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and the cost of producing those items, in profit or loss. The application of amendments does not have a significant impact on the Company's interim consolidated financial statements.

Amendments to Korean IFRS 1037, Provisions, Contingent Liabilities and Contingent Assets

The amendments specify that the cost of fulfilling a contract comprises the costs that relate directly to the contract, and that costs that relate directly to a contract consist of both the incremental costs of fulfilling that contract and an allocation of other costs that relate directly to fulfilling contracts. The application of the amendments does not have a significant impact on the Company's interim separate financial statements.

(B) New and amended standards not yet adopted by the Company

The amended accounting standard issued that is not mandatory for the annual reporting periods commencing January 1, 2022 and has not been early adopted by the Company is as follows:

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

The amendments to K-IFRS 1001 clarify that the classification of liabilities as current or non-current should be based on rights that are in existence at the end of the reporting period, and that the classification is unaffected by expectations of management or whether an entity will exercise its right to defer settlement of a liability. The amendments also introduce a definition of settlement to make clear that settlement can refer to the transfer to the counterparty of the entity's own equity instruments, unless the entity classifies the option as an equity instrument, recognising it separately from the liability as an equity component of a compound financial instrument. The amendments are applied retrospectively for annual periods beginning on or after January 1, 2023, with early application permitted.

Amendments to Korean IFRS 1001 Presentation of Financial Statements, Disclosure of Accounting Policies

The amendments require companies to define and disclose their 'material' accounting policy information instead of its 'significant' accounting policies. The amendments explain how an entity can identify material accounting policy information. The amendments to K-IFRS 1001 are effective for annual periods beginning on or after January 1, 2023, with earlier application permitted and are applied prospectively.

Amendments to Korean IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors - Definition of Accounting Estimates

The amendments clarify the definition of a change in accounting estimates, and specify how to distinguish from a change in accounting policies. The amendments are effective for annual periods beginning on or after January 1, 2023 to changes in accounting policies and changes in accounting estimates that occur on or after the beginning of that period, with earlier application permitted.

Amendments to Korean IFRS 1012, Income Taxes - Deferred Tax related to Assets and Liabilities arising from a Single Transaction

The amendments add to the initial recognition exemption that the initial recognition exemption does not apply to transactions in which equal amounts of deductible and taxable temporary differences arise on initial recognition. The amendments are effective for annual reporting periods beginning on or after January 1, 2023, with earlier application permitted.

2.2 Accounting Policies

Significant accounting policies and method of computation used in the preparation of the interim consolidated financial statements are consistent with those of the 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 and as described below.

(A) 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 of the interim period.

2.3 Convenience Translation into United States Dollar Amounts

The Company operates primarily in Korean won and its official accounting records are maintained in Korean won. The US dollar amounts provided in the consolidated financial statements represent supplementary information solely for the convenience of the reader. All Korean won amounts are expressed in US dollars at the rate of ₩ 1,231.7 to \$1, the average exchange rate for the six-month period ended June 30, 2022. Such presentation is not in accordance with generally accepted accounting principles, and should not be construed as a representation that the Korean won amounts shown could be readily converted, realized or settled in US dollars at this or at any other rate.

2.4 Critical Accounting Estimates and Assumptions

In preparing the interim consolidated financial statements, the management of the Company makes judgements, estimates and assumptions on matters which affect the application of policies and reported amounts of assets, liabilities, income and expenses. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates, by definition, seldom equal the related actual results. Recent spread of COVID-19 may result in changes to the Company's assumptions and estimates, but its potential financial impact cannot be reasonably estimated as of the reporting date.

Critical accounting estimates and assumptions made in the preparation of the interim consolidated financial statements are consistent with those applied in the preparation of the annual consolidated financial statements for the year ended December 31, 2021, except for the estimates used to determine the income tax expense.

3. Financial Instruments by Category

(A) Categorizations of financial assets and liabilities as of June 30, 2022 and December 31, 2021 are as follows:

(1) As of June 30, 2022

<i>(In millions of Korean won)</i>	Financial assets measured at amortized cost	Financial assets measured at fair value through other comprehensive income	Financial assets measured at fair value through profit or loss	Other financial assets ¹	Total
Financial assets					
Cash and cash equivalents	39,583,141	-	-	-	39,583,141
Short-term financial instruments	84,428,822	-	-	-	84,428,822
Short-term financial assets at amortized cost	1,253,196	-	-	-	1,253,196
Short-term financial assets at fair value through profit or loss	-	-	55,505	-	55,505
Trade receivables	44,026,232	-	-	-	44,026,232
Financial assets at fair value through other comprehensive income	-	11,610,592	-	-	11,610,592
Financial assets at fair value through profit or loss	-	-	1,382,193	-	1,382,193
Other	9,949,776	-	334,806	78,075	10,362,657
Total	179,241,167	11,610,592	1,772,504	78,075	192,702,338

¹Other financial assets include derivatives designated as hedging instruments which are not subject to categorizations.

<i>(In millions of Korean won)</i>	Financial liabilities measured at amortized cost	Financial liabilities measured at fair value through profit or loss	Other financial liabilities ¹	Total
Financial liabilities				
Trade payables	12,560,726	-	-	12,560,726
Short-term borrowings	3,404,897	-	9,584,291	12,989,188
Other payables	12,270,350	-	-	12,270,350
Current portion of long-term liabilities	104,382	-	848,429	952,811
Debentures	553,783	-	-	553,783
Long-term borrowings	8,500	-	2,934,708	2,943,208
Long-term other payables	2,400,941	-	-	2,400,941
Other	10,981,962	343,437	19,869	11,345,268
Total	42,285,541	343,437	13,387,297	56,016,275

¹ Other financial liabilities include collateralized borrowings, lease liabilities and derivatives designated as hedging instruments which are not subject to categorizations.

(2) As of December 31, 2021

<i>(In millions of Korean won)</i>	Financial assets measured at amortized cost	Financial assets measured at fair value through other comprehensive income	Financial assets measured at fair value through profit or loss	Other financial assets¹	Total
Financial assets					
Cash and cash equivalents	39,031,415	-	-	-	39,031,415
Short-term financial instruments	81,708,986	-	-	-	81,708,986
Short-term financial assets at amortized cost	3,369,034	-	-	-	3,369,034
Short-term financial assets at fair value through profit or loss	-	-	40,757	-	40,757
Trade receivables	40,713,415	-	-	-	40,713,415
Financial assets at fair value through other comprehensive income	-	13,965,839	-	-	13,965,839
Financial assets at fair value through profit or loss	-	-	1,525,344	-	1,525,344
Other	8,711,973	-	279,127	49,089	9,040,189
Total	173,534,823	13,965,839	1,845,228	49,089	189,394,979

¹ Other financial assets include derivatives designated as hedging instruments which are not subject to categorizations.

<i>(In millions of Korean won)</i>	Financial liabilities measured at amortized cost	Financial liabilities measured at fair value through profit or loss	Other financial liabilities¹	Total
Financial liabilities				
Trade payables	13,453,351	-	-	13,453,351
Short-term borrowings	2,131,692	-	11,556,101	13,687,793
Other payables	14,126,970	-	-	14,126,970
Current portion of long-term liabilities	518,065	-	811,903	1,329,968
Debentures	508,232	-	-	508,232
Long-term borrowings	1,500	-	2,864,656	2,866,156
Long-term other payables	2,562,158	-	-	2,562,158
Others	10,444,290	323,526	13,868	10,781,684
Total	43,746,258	323,526	15,246,528	59,316,312

¹ Other financial liabilities include collateralized borrowings, lease liabilities, and derivatives designated as hedging instruments which are not subject to categorizations.

4. Financial Assets at Fair Value

(A) Details of financial assets at fair value as of June 30, 2022 and December 31, 2021 are as follows:

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

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Non-current portion		
Equity instruments	11,610,592	13,965,839

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

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Current portion		
Debt instruments	55,505	40,757
Non-current portion		
Equity instruments	768,455	905,094
Debt instruments	613,738	620,250
Subtotal	1,382,193	1,525,344
Total	1,437,698	1,566,101

(B) Details of listed equity securities of financial assets at fair value as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won, number of shares and percentage)</i>	June 30, 2022			December 31, 2021	
	Number of shares owned	Percentage of ownership¹ (%)	Acquisition cost	Carrying amount (Market value)	Carrying amount (Market value)
Samsung Heavy Industries	134,027,281	15.2	932,158	813,546	759,935
Hotel Shilla	2,004,717	5.1	13,957	142,736	156,368
iMarket Korea	647,320	1.9	324	6,667	6,926
SFA	3,644,000	10.2	38,262	144,120	131,366
Wonik Holdings	3,518,342	4.6	30,821	14,978	17,521
Wonik IPS	3,701,872	7.5	32,428	110,316	156,589
ASML Holding N.V	6,297,787	1.5	363,012	3,875,786	5,974,280
Wacom Co., Ltd.	8,398,400	5.0	62,013	66,769	79,256
BYD Company Limited	2,380,100	0.1	79,049	152,993	118,862
Corning Incorporated	80,000,000	9.5	3,980,636	3,259,142	3,530,893
Other			559,450	793,581	1,155,113
Total			6,092,110	9,380,634	12,087,109

¹ Ownership represents the Company's ownership of the total ordinary shares issued by each entity.

5. Inventories

Inventories as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022			December 31, 2021		
	Gross amount	Valuation allowance	Carrying amount	Gross amount	Valuation allowance	Carrying amount
Finished goods	18,694,756	(1,120,644)	17,574,112	13,000,200	(719,621)	12,280,579
Work in process	16,005,040	(825,983)	15,179,057	13,967,331	(493,713)	13,473,618
Raw materials and supplies	18,865,194	(1,023,917)	17,841,277	14,864,486	(679,645)	14,184,841
Materials in transit	1,497,795	-	1,497,795	1,445,366	-	1,445,366
Total	55,062,785	(2,970,544)	52,092,241	43,277,383	(1,892,979)	41,384,404

6. Investments in Associates and Joint Ventures

(A) Changes in investments in associates and joint ventures for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Balance as of January 1	8,932,251	8,076,779
Acquisition	1,002,798	28,600
Disposal	(6,913)	(4,519)
Share of profit	491,706	335,006
Other ¹	(36,904)	50,028
Balance as of June 30	10,382,938	8,485,894

¹ Other consists of dividends, impairment, and reclassification.

(B) Major investments in associates and joint ventures as of June 30, 2022 are as follows:

(1) Investments in associates

Investee	Nature of relationship with associate	Percentage of ownership (%) ¹	Principal business location	Fiscal period-end
Samsung Electro-Mechanics	Manufacture and supply electronic components including passive components, circuit boards, and modules	23.7	Korea	December
Samsung SDS	Provide IT services including computer programming, system integration and management and logistical services	22.6	Korea	December
Samsung Biologics	New business investment	31.2	Korea	December
Samsung SDI ²	Manufacture and supply electronics including secondary cell batteries	19.6	Korea	December
Cheil Worldwide	Advertising agency	25.2	Korea	December

¹ Ownership represents the Company's ownership of the total ordinary shares issued by each entity.

² The Company's ownership of ordinary shares outstanding is 20.6%.

(2) Investments in joint ventures

Investee	Nature of relationship with joint venture	Percentage of ownership (%) ¹	Principal business location	Fiscal period-end
Samsung Corning Advanced Glass	Manufacture and supply industrial glass devices	50.0	Korea	December

¹ Ownership represents the Company's ownership of the total ordinary shares issued by each entity.

(C) Details of investments in associates and joint ventures as of June 30, 2022 and December 31, 2021 are as follows:

(1) Investments in associates

<i>(In millions of Korean won)</i>		June 30, 2022		
Investee	Acquisition cost	Net asset value of equity shares ¹	Carrying amount	
Samsung Electro-Mechanics	359,237	1,699,902	1,687,646	
Samsung SDS	147,963	1,720,961	1,736,758	
Samsung Biologics	1,424,358	2,647,036	2,650,618	
Samsung SDI	1,242,605	3,127,156	2,627,993	
Cheil Worldwide	506,162	329,935	630,514	
Other	659,623	634,538	846,824	
Total	4,339,948	10,159,528	10,180,353	

¹ The Company's portion of net asset value of associates is based on the Company's percentage of ownership.

(In millions of Korean won)

December 31, 2021

Investee	Acquisition cost	Net asset value of equity shares¹	Carrying amount
Samsung Electro-Mechanics	359,237	1,573,570	1,556,386
Samsung SDS	147,963	1,632,847	1,652,155
Samsung Biologics	443,193	1,571,809	1,577,664
Samsung SDI	1,242,605	2,960,235	2,529,650
Cheil Worldwide	506,162	320,301	621,292
Other	644,903	578,547	793,748
Total	3,344,063	8,637,309	8,730,895

¹ The Company's portion of net asset value of associates is based on the Company's percentage of ownership.

(2) Investments in joint ventures

(In millions of Korean won)

June 30, 2022

Investee	Acquisition cost	Net asset value of equity shares¹	Carrying amount
Samsung Corning Advanced Glass	215,000	138,861	138,857
Other	259,994	66,701	63,728
Total	474,994	205,562	202,585

¹ The Company's portion of net asset value of joint ventures is based on the Company's percentage of ownership.

(In millions of Korean won)

December 31, 2021

Investee	Acquisition cost	Net asset value of equity shares¹	Carrying amount
Samsung Corning Advanced Glass	215,000	135,584	135,580
Other	259,994	67,517	65,776
Total	474,994	203,101	201,356

¹ The Company's portion of net asset value of joint ventures is based on the Company's percentage of ownership.

(D) Details of the valuation of investments in associates and joint ventures using the equity method are as follows:

(1) For the six-month period ended June 30, 2022

<i>(In millions of Korean won)</i>	Balance as of January 1	Share of profit	Share of other comprehensive income (loss)	Other¹	Balance as of June 30
Samsung Electro-Mechanics	1,556,386	143,913	24,503	(37,156)	1,687,646
Samsung SDS	1,652,155	100,037	26,499	(41,933)	1,736,758
Samsung Biologics	1,577,664	93,678	(1,888)	981,164	2,650,618
Samsung SDI	2,529,650	91,076	20,729	(13,462)	2,627,993
Cheil Worldwide	621,292	30,141	7,828	(28,747)	630,514
Samsung Corning Advanced Glass	135,580	3,277	-	-	138,857
Other	859,524	29,584	(54,700)	76,144	910,552
Total	8,932,251	491,706	22,971	936,010	10,382,938

¹ Other consists of acquisitions, disposals, dividends, impairment and reclassification.

(2) For the six-month period ended June 30, 2021

<i>(In millions of Korean won)</i>	Balance as of January 1	Share of profit	Share of other comprehensive income (loss)	Other¹	Balance as of June 30
Samsung Electro-Mechanics	1,333,819	117,610	29,452	(24,770)	1,456,111
Samsung SDS	1,525,857	71,137	24,125	(41,933)	1,579,186
Samsung Biologics	1,453,012	59,036	(117)	-	1,511,931
Samsung SDI	2,326,037	37,529	111,749	(13,464)	2,461,851
Cheil Worldwide	586,057	24,908	4,898	(24,393)	591,470
Samsung Corning Advanced Glass	123,356	7,098	-	-	130,454
Other	728,641	17,688	(62,817)	71,379	754,891
Total	8,076,779	335,006	107,290	(33,181)	8,485,894

¹ Other consists of acquisitions, disposals, dividends, impairment, and reclassification.

(E) Summary of the financial information of major associates and joint ventures

- (1) Summary of financial information of major associates and dividends received from associates as of June 30, 2022 and December 31, 2021, and for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022				
	Samsung Electro- Mechanics	Samsung SDS	Samsung Biologics	Samsung SDI	Cheil Worldwide
1. Condensed financial information					
Condensed statements of financial position :					
Current assets	5,103,411	8,117,813	6,344,592	9,418,214	2,065,765
Non-current assets	5,604,568	3,251,652	9,314,850	19,423,672	527,322
Current liabilities	2,484,860	2,648,705	3,467,676	7,550,664	1,243,068
Non-current liabilities	802,716	879,038	3,711,884	5,243,138	187,510
Non-controlling interests	162,034	222,914	-	514,680	11,765
Condensed statements of comprehensive income:					
Revenue	5,089,065	8,786,676	1,162,727	8,790,200	1,922,981
Profit from continuing operations, net of tax ¹	604,625	464,770	298,983	747,915	105,224
Other comprehensive income ¹	106,251	110,958	1,476	148,171	28,644
Total comprehensive income ¹	710,876	575,728	300,459	896,086	133,868
2. Dividends from associates					
Dividends	37,155	41,933	-	13,463	28,748

¹ Profit attributable to owners of the investee

2021

(In millions of Korean won)

	Samsung Electro- Mechanics	Samsung SDS	Samsung Biologics	Samsung SDI	Cheil Worldwide
1. Condensed financial information					
Condensed statements of financial position:					
Current assets	4,598,269	7,575,968	2,823,175	7,444,907	2,018,598
Non-current assets	5,343,105	2,941,464	5,146,835	18,388,286	523,513
Current liabilities	2,234,657	2,370,290	1,107,295	6,461,286	1,224,222
Non-current liabilities	835,592	703,442	1,871,614	4,175,208	190,622
Non-controlling interests	152,177	214,980	-	492,435	10,125
Condensed statements of comprehensive income:					
Revenue	4,847,454	6,312,184	672,960	6,297,481	1,486,797
Profit from continuing operations, net of tax ¹	488,235	315,218	182,498	438,333	87,048
Loss from discontinued operation, net of tax ¹	(10,937)	-	-	-	-
Other comprehensive income (loss) ¹	125,914	88,446	(250)	459,243	13,430
Total comprehensive income ¹	603,212	403,664	182,248	897,576	100,478
2. Dividends from associates					
Dividends	24,770	41,933	-	13,463	24,392

¹ Profit (Loss) attributable to owners of the investee.

- (2) Summary of financial information of major joint ventures and dividends received from joint ventures as of June 30, 2022 and December 31, 2021, and for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	Samsung Corning Advanced Glass	
	2022	2021
Condensed financial information		
Condensed statements of financial position:		
Current assets	165,312	163,083
Non-current assets	132,505	141,411
Current liabilities	19,161	31,779
Non-current liabilities	935	1,547
Condensed statements of comprehensive income¹:		
Revenue	75,043	99,420
Profit from continuing operations, net of tax ¹	6,553	12,210
Profit from discontinued operations, net of tax ¹	-	-
Other comprehensive income ¹	-	-
Total comprehensive income ¹	6,553	12,210
Dividends from joint ventures		
Dividends	-	-

¹ Profit for the six-month periods ended June 30, 2022 and 2021.

- (3) Profit (loss) attributable to owners of the parent company from associates and joint ventures which are not individually material for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022		2021	
	Associates	Joint ventures	Associates	Joint ventures
Profit (Loss) from continuing operations	28,633	951	17,998	(310)
Other comprehensive loss	(51,498)	(3,202)	(61,644)	(1,173)
Total comprehensive loss	(22,865)	(2,251)	(43,646)	(1,483)

- (F) Details of marketable investments in associates as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won and number of shares)</i>	June 30, 2022		December 31, 2021
	Number of shares held	Market value	Market value
Samsung Electro-Mechanics	17,693,084	2,308,947	3,494,384
Samsung SDS	17,472,110	2,271,374	2,734,385
Samsung Biologics	22,217,309	17,551,674	18,815,659
Samsung SDI	13,462,673	7,162,142	8,818,051
Cheil Worldwide	29,038,075	689,654	663,520

(G) Other matters

On July 12, 2018, the Korea Securities and Futures Commission determined an initial measure following an investigation relating to Samsung Biologics Co., Ltd., an associate of the Company, and its accounting for its investment in Samsung Bioepis Co., Ltd., a joint venture between Biogen Therapeutics Inc. and Samsung Biologics Co., Ltd. This measure included a recommendation to dismiss the director in charge, prosecution charges, and external auditor designation by the regulator, on the basis that the Joint Venture Agreement was not disclosed in the notes to the financial statements. On November 14, 2018, the Korea Securities and Futures Commission determined a second measure which included a penalty of ₩ 8,000 million, a recommendation to dismiss the CEO, a requirement to restate its financial statements, and further prosecution charges.

To prove justification of its accounting treatment, Samsung Biologics Co., Ltd. filed a suit for cancellation of the aforementioned measures to the Seoul Administrative Court, which is currently in progress. On September 24, 2021, the Seoul Administrative Court announced a decision to cancel the first measure charged by the Korea Securities and Futures Commission, and suspended its execution until the final rulings of the appeal. On October 16, 2021, the Korea Securities and Futures Commission appealed and the litigation is in progress at Seoul High Court. Samsung Biologics Co., Ltd. also filed for suspending the execution of the initial and second measures. On January 22, 2019 and February 19, 2019, the Seoul Administrative Court pronounced decisions to suspend the second and initial measure, respectively, until the final rulings. The Korea Securities and Futures Commission immediately appealed against the decisions but the appeals were dismissed by the Seoul High Court on May 13, 2019 and May 24, 2019, in relation to the second and first measures, respectively. On May 23, 2019 and June 10, 2019, the Korea Securities and Futures Commission re-appealed against the dismissals relating to the second and first measures, respectively. On September 6, 2019 and October 11, 2019, the Supreme Court of Korea dismissed the Korea Securities and Futures Commission's re-appeal relating to the second and first measures, respectively, and confirmed the decision to suspend execution of these measures.

Although the future outcome of the administrative litigation cannot be estimated, should Samsung Biologics Co., Ltd. be required to restate its financial statements to amend its historical accounting treatment relating to its investment in Samsung Bioepis Co., Ltd., the Company's share of profit or loss relating to its equity method investment, the amount of investment in associates, and retained earnings, for the years ended December 31, 2015 and onwards, and the profit on disposal of investment for the year ended December 31, 2016, may be impacted. Given the timing of completion and the final result of the administrative litigation between Samsung Biologics Co., Ltd. and the Korea Securities and Futures Commission is uncertain and cannot currently be estimated, it is not possible for the Company to recognize the effects of these proceedings in the current period consolidated financial statements.

7. Property, Plant and Equipment

(A) Changes in property, plant and equipment for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Balance as of January 1	149,928,539	128,952,892
Acquisition and capital expenditures	20,754,405	24,055,907
Depreciation	(18,077,845)	(14,360,825)
Disposals/scrap/impairment	(164,773)	(287,768)
Other ¹	1,814,250	1,029,656
Balance as of June 30	154,254,576	139,389,862

¹ Other includes effects of changes in foreign currency exchange rates and effects of the offset of government grants.

(B) Details of depreciation of property, plant and equipment for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Cost of sales	16,292,066	12,672,651
Selling and administrative expenses and other	1,785,779	1,688,174
Total	18,077,845	14,360,825

(C) Right-of-use assets as of June 30, 2022 amount to ₩ 4,038,685 million (December 31, 2021: ₩ 3,950,567 million). During the six-month periods ended June 30, 2022 and 2021, newly recognized right-of-use assets amount to ₩ 502,506 million and ₩ 749,906 million, respectively, with relevant depreciation of ₩ 469,474 million and ₩ 432,080 million, respectively.

8. Intangible Assets

(A) Changes in intangible assets for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Balance as of January 1	20,236,244	18,468,502
External acquisitions	859,818	3,259,677
Internally generated (development costs)	-	170,677
Amortization	(1,543,029)	(1,471,855)
Disposals/scrap/impairment	(27,801)	(12,296)
Other ¹	571,694	332,308
Balance as of June 30	20,096,926	20,747,013

¹ Other includes the cumulative effect of changes in foreign currency exchange rates and business combinations.

(B) Details of amortization of intangible assets for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Cost of sales	1,070,464	1,060,884
Selling and administrative expenses and other	472,565	410,971
Total	1,543,029	1,471,855

9. Borrowings

Details of the carrying amounts of borrowings as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	Financial institutions	Interest rates (%) as of June 30, 2022	June 30, 2022	December 31, 2021
Short-term borrowings				
Collateralized borrowings ¹	Woori Bank and others	0.0~13.4	9,584,291	11,556,101
Non-collateralized borrowings	Citibank and others	0.0~38.5	3,404,897	2,131,692
Total			12,989,188	13,687,793
Current portion of long-term borrowings				
Bank borrowings	BNP Paribas	18.3~47.1	98,028	40,415
Lease liabilities ²	CSSD and others	3.3	848,429	811,902
Total			946,457	852,317
Long-term borrowings				
Bank borrowings	Industrial Bank of Korea	1.5~3.8	8,500	1,500
Lease liabilities ²	CSSD and others	3.3	2,934,708	2,864,656
Total			2,943,208	2,866,156

¹ Collateralized borrowings are secured by trade receivables.

² Interest expenses arising from the lease liabilities for the six-month periods ended June 30, 2022 and 2021 amounted to ₩ 61,932 million and ₩ 51,611 million, respectively, which were determined using the weighted average incremental borrowing rate. The right-of-use assets are pledged as collateral to the lessor in the event of default.

10. Debentures

Details of the carrying amounts of debentures as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	Issue date	Due date	Interest rates (%)	June 30, 2022	December 31, 2021
			as of June 30, 2022		
US dollar denominated straight bonds ¹	1997.10.2	2027.10.1	7.7	38,787 (US \$ 30 million)	35,565 (US \$ 30 million)
US dollar denominated debenture bonds ²	2015.5.11	2025.5.15	4.2	517,160 (US \$ 400 million)	474,200 (US \$ 400 million)
EURO denominated debenture bonds ³	2015.5.27	2022.5.27	2.0	-	469,819 (EUR € 350 million)
Less: Discounts				(662)	(708)
Add: Premium				4,852	7,007
Less: Current portion				(6,354)	(477,651)
Total				553,783	508,232

¹ US dollar denominated straight bonds are repaid annually for twenty years after a ten-year grace period from the date of issuance. Interest is paid semi-annually.

² Harman International Industries, Inc. issued US dollar denominated debenture bonds. These debentures are repaid on the date of 10 years maturity and interest is paid semi-annually.

³ Harman Finance International, SCA issued Euro denominated debenture bonds. These debentures are repaid on the date of 7 years maturity and interest is paid annually. These debentures were fully repaid early on March 1, 2022.

11. Net Defined Benefit Liabilities (Assets)

(A) Details of net defined benefit liabilities (assets) recognized in the statements of financial position as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Present value of funded defined benefit obligations	15,101,824	14,391,209
Present value of unfunded defined benefit obligations	285,298	266,976
Subtotal	15,387,122	14,658,185
Fair value of plan assets	(17,001,453)	(17,001,891)
Total	(1,614,331)	(2,343,706)

(B) The components of defined benefit costs recognized in profit or loss for the six-month periods ended June 30, 2022 and 2021 relating to defined benefit plans are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Current service cost	684,929	624,240
Net interest income	(49,382)	(19,249)
Past service cost	56	664
Other	3,417	2,379
Total	639,020	608,034

- (C) The expenses related to defined benefit plans recognized in the statements of profit or loss for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Cost of sales	273,388	254,759
Selling and administrative expenses and other	365,632	353,275
Total	639,020	608,034

12. Provisions

Changes in the provisions for the six-month period ended June 30, 2022 are as follows:

<i>(In millions of Korean won)</i>	Warranty (A)	Royalty expenses (B)	Long-term incentives (C)	Other (D, E)	Total
Balance as of January 1	1,978,294	1,561,809	734,283	3,405,480	7,679,866
Charged to profit or loss	928,400	476,237	136,561	732,316	2,273,514
Payment	(829,003)	(309,700)	(252,451)	(555,725)	(1,946,879)
Other ¹	66,273	132,019	5,133	64,095	267,520
Balance as of June 30	2,143,964	1,860,365	623,526	3,646,166	8,274,021

¹ Other includes effects of changes in foreign currency exchange rates.

- (A) The Company accrues warranty reserves for estimated costs of quality assurance, exchanges, repairs, recalls, and future services based on historical experience and terms of warranty programs.
- (B) The Company recognizes provisions for the estimated royalty expenses that are under negotiation with counterparties. The timing and amount of payment depend on the settlement of the negotiation.
- (C) The Company has a long-term incentive plan for its executives based on three-year management performance criteria and recognizes a provision for the estimated incentive cost for the accrued period.
- (D) The Company records provisions for future expenses expected to be incurred for products that have been discontinued from manufacturing and sales.
- (E) The Company makes provisions for the carrying amounts of emission rights held by the Company and the emission in excess of the emission rights for the applicable years. Details of emission rights and liabilities as of June 30, 2022 are as follows:

- (1) The amount of emission rights allocated free of charge in the current commitment period and the estimated amount of emission as of June 30, 2022 are as follows:

<i>(In ten thousand metric tons)</i>	June 30, 2022
Allocated emission permits	1,687
Estimated volume of emission	1,997

- (2) Changes in the emission rights for the six-month period ended June 30, 2022 are as follows:

<i>(In millions of Korean won)</i>	2022
Balance as of January 1	46,074
Increase	1,871
Balance as of June 30	47,945

- (3) Changes in emissions liabilities for the six-month period ended June 30, 2022 are as follows:

<i>(In millions of Korean won)</i>	2022
Balance as of January 1	45,049
Charged to profit or loss	23,365
Submission	-
Balance as of June 30	68,414

13. Commitments and Contingencies

(A) Litigation

The Company is involved in various claims, disputes, and investigations conducted by regulatory bodies, which arose during the normal course of business with numerous entities. Although the outflow of resources and timing of these matters are uncertain, as of the reporting date, the Company believes the outcome will not have a material impact on the financial position of the Company.

14. Contract Liabilities

The Company has recognized contract liabilities related to contracts with customers as follows:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Contract liabilities ¹	13,196,201	13,235,108

¹ Contract liabilities include advances received, accrued expenses, other current liabilities and others.

15. Share Capital

As of June 30, 2022, the Company's total number of authorized shares is 25,000,000,000 shares (₩ 100 per share). The Company has issued 5,969,782,550 shares of ordinary shares and 822,886,700 shares of preference shares as of June 30, 2022, excluding retired shares. As of June 30, 2022, the number of shares outstanding is the same as the number of shares issued above, and no changes were made to the number of shares outstanding during the six-month periods ended June 30, 2022 and the year ended December 31, 2021. Due to the retirement of shares, the total par value of the shares issued is ₩ 679,267 million (ordinary shares of ₩ 596,978 million and preference shares of ₩ 82,289 million), which does not agree with paid-in capital of ₩ 897,514 million.

16. Retained Earnings

(A) Retained earnings as of June 30, 2022 and December 31, 2021 consist of the following:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Discretionary reserve, etc.	192,095,157	170,814,107
Unappropriated retained earnings	118,121,628	122,250,656
Total	310,216,785	293,064,763

(B) Details of interim dividends are as follows:

(1) Interim dividends (Record date: March 31 and June 30, 2022 and 2021)

<i>(In millions of Korean won and number of shares)</i>		2022	2021	
1 st Quarter	Number of shares eligible for dividends	Ordinary shares	5,969,782,550	5,969,782,550
		Preference shares	822,886,700	822,886,700
	Dividend rate (based on par value)	361%	361%	
	Dividend amount	Ordinary shares	2,155,092	2,155,092
Preference shares		297,062	297,062	
		Total	2,452,154	2,452,154
2 nd Quarter	Number of shares eligible for dividends	Ordinary shares	5,969,782,550	5,969,782,550
		Preference shares	822,886,700	822,886,700
	Dividend rate (based on par value)	361%	361%	
	Dividend amount	Ordinary shares	2,155,092	2,155,092
Preference shares		297,062	297,062	
		Total	2,452,154	2,452,154

17. Other Components of Equity

Other components of equity as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Gain on valuation of financial assets at fair value through other comprehensive income	2,860,145	4,616,639
Share of other comprehensive income of associates and joint ventures	189,564	166,835
Gain (loss) on foreign currency translation	3,439,408	(3,824,733)
Remeasurement of net defined benefit liabilities (assets)	(3,271,369)	(3,173,977)
Other	94,672	86,763
Total	3,312,420	(2,128,473)

18. Expenses by Nature

Expenses by nature for the three and six-month periods ended June 30, 2022 and 2021 consist of the following:

<i>(In millions of Korean won)</i>	June 30, 2022		June 30, 2021	
	3 Months	6 Months	3 Months	6 Months
Changes in finished goods and work in process	(4,439,969)	(6,998,972)	20,649	1,760,501
Raw materials used and merchandise purchased	28,865,165	56,931,407	19,633,598	42,218,021
Wages and salaries	7,528,038	15,260,987	6,598,439	13,301,170
Post-employment benefit	341,528	692,424	336,872	676,056
Depreciation	9,068,814	18,077,845	7,213,089	14,360,825
Amortization	772,552	1,543,029	776,313	1,471,855
Welfare	1,738,929	3,140,865	1,355,793	2,558,370
Utilities	1,383,458	2,782,026	1,142,455	2,342,866
Outsourcing	1,652,475	3,135,008	1,376,724	2,783,173
Advertising	1,397,480	2,865,181	1,118,991	2,229,360
Sales promotion expenses	1,536,956	3,360,354	1,241,802	2,866,329
Other	13,261,136	25,976,497	10,290,115	20,541,949
Total¹	63,106,562	126,766,651	51,104,840	107,110,475

¹ Equal to the sum of cost of sales and selling and administrative expenses in the consolidated statements of profit or loss.

19. Selling and Administrative Expenses

Selling and administrative expenses for the three and six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022		June 30, 2021	
	3 Months	6 Months	3 Months	6 Months
Selling and administrative expenses				
Wages and salaries	1,884,465	3,879,818	1,647,928	3,444,562
Post-employment benefit	72,706	150,000	77,660	155,394
Commissions and service charges	1,806,907	3,537,298	1,468,637	2,929,630
Depreciation	382,702	761,443	378,537	760,611
Amortization	163,203	331,697	134,888	270,471
Advertising	1,397,480	2,865,181	1,118,991	2,229,360
Sales promotion expenses	1,536,956	3,360,354	1,241,802	2,866,329
Transportation	984,085	1,841,718	710,587	1,319,349
Warranty	837,018	1,730,562	693,446	1,514,103
Other	1,516,418	2,789,669	1,183,917	2,231,690
Subtotal	10,581,940	21,247,740	8,656,393	17,721,499
Research and development expenses				
Total expenses	6,254,874	12,177,106	5,451,616	10,993,737
Capitalized expenses	-	-	(69,100)	(170,677)
Subtotal	6,254,874	12,177,106	5,382,516	10,823,060
Total	16,836,814	33,424,846	14,038,909	28,544,559

20. Other Non-Operating Income and Expenses

Details of other non-operating income and expenses for the three and six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022		June 30, 2021	
	3 Months	6 Months	3 Months	6 Months
Other non-operating income				
Dividend income	62,400	330,909	68,335	77,069
Rental income	34,914	69,498	32,967	66,785
Gain on disposal of property, plant and equipment	63,780	114,200	130,550	206,021
Other ¹	302,877	649,557	508,816	690,535
Total	463,971	1,164,164	740,668	1,040,410

<i>(In millions of Korean won)</i>	June 30, 2022		June 30, 2021	
	3 Months	6 Months	3 Months	6 Months
Other non-operating expenses				
Loss on disposal of property, plant and equipment	19,911	24,107	40,627	50,469
Donations	85,866	175,426	95,431	134,638
Other	494,616	853,970	740,838	1,016,029
Total	600,393	1,053,503	876,896	1,201,136

¹ Other includes gain from sale of assets held-for-sale.

21. Financial Income and Expenses

Details of financial income and expenses for the three and six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022		June 30, 2021	
	3 Months	6 Months	3 Months	6 Months
Financial income				
Interest income:	487,194	856,226	254,133	586,681
Interest income from financial assets measured at amortized cost	487,130	856,097	254,078	586,551
Interest income from financial assets measured at fair value through profit or loss	64	129	55	130
Foreign exchange differences	4,490,804	7,099,407	1,409,002	3,117,039
Gains from derivatives	393,887	918,441	124,008	322,061
Total	5,371,885	8,874,074	1,787,143	4,025,781

<i>(In millions of Korean won)</i>	June 30, 2022		June 30, 2021	
	3 Months	6 Months	3 Months	6 Months
Financial expenses				
Interest expenses:	123,064	272,295	74,232	170,674
Interest expense from financial liabilities measured at amortized cost	31,904	106,567	24,956	68,223
Other financial liabilities	91,160	165,728	49,276	102,451
Foreign exchange differences	4,675,575	7,136,257	1,186,226	2,921,078
Losses from derivatives	332,340	755,745	262,259	424,847
Total	5,130,979	8,164,297	1,522,717	3,516,599

The Company recognizes foreign exchange gains and losses arising from foreign currency transactions and translation as financial income and expenses.

22. Income Tax Expense

Income tax expense is recognized based on management's best estimate of the weighted average annual income tax rate expected for the full financial year. The average annual tax rate expected as of June 30, 2022 to be effective for the year ended December 31, 2022 is 24.1%.

23. Earnings per Share

(A) Basic earnings per share

Basic earnings per share for the three and six-month periods ended June 30, 2022 and 2021 are calculated as follows:

(1) Ordinary shares

<i>(In millions of Korean won, thousands of number of shares)</i>	June 30, 2022		June 30, 2021	
	3 Months	6 Months	3 Months	6 Months
Profit for the period attributable to owners of the parent company	10,954,515	22,083,609	9,450,676	16,543,462
Profit for the period available for ordinary shares	9,627,448	19,408,327	8,305,789	14,539,332
Weighted-average number of ordinary shares outstanding	5,969,783	5,969,783	5,969,783	5,969,783
Basic earnings per ordinary share (in Korean won)	1,613	3,251	1,391	2,435

(2) Preference shares

<i>(In millions of Korean won, thousands of number of shares)</i>	June 30, 2022		June 30, 2021	
	3 Months	6 Months	3 Months	6 Months
Profit for the period attributable to owners of the parent company	10,954,515	22,083,609	9,450,676	16,543,462
Profit for the period available for preference shares	1,327,067	2,675,282	1,144,887	2,004,130
Weighted-average number of preference shares outstanding	822,887	822,887	822,887	822,887
Basic earnings per preference share (in Korean won)	1,613	3,251	1,391	2,435

(B) Diluted earnings per share

The Company does not have dilutive potential ordinary shares and as a result, basic earnings per share and diluted earnings per share are the same for the three and six-month periods ended June 30, 2022 and 2021.

24. Statements of Cash Flows

The Company used the indirect method to present cash flows from operating activities. Adjustments and changes in assets and liabilities arising from operating activities for the six-month periods ended June 30, 2022 and 2021 are as follows:

- Adjustments

<i>(In millions of Korean won)</i>	2022	2021
Adjustments:		
Income tax expense	7,107,165	5,856,904
Financial income	(3,033,105)	(1,341,113)
Financial expenses	2,516,133	1,040,969
Post-employment benefits	692,424	676,056
Depreciation	18,077,845	14,360,825
Amortization	1,543,029	1,471,855
Bad debt expenses (reversal)	24,421	2,568
Dividend income	(330,909)	(77,069)
Share of profit of associates and joint ventures	(491,706)	(335,006)
Gain on disposal of property, plant and equipment	(114,200)	(206,021)
Loss on disposal of property, plant and equipment	24,107	50,469
Loss on valuation of inventories	1,934,530	591,381
Others	108,064	(159,302)
Total	28,057,798	21,932,516

- Changes in assets and liabilities arising from operating activities

<i>(In millions of Korean won)</i>	2022	2021
Changes in assets and liabilities:		
Decrease (increase) in trade receivables	383,614	(3,806,471)
Increase in other receivables	(656,444)	(55,161)
Increase in prepaid expenses	(323,801)	(202,122)
Increase in inventories	(10,473,730)	(1,594,374)
Increase (decrease) in trade payables	(3,479,374)	299,667
Increase (decrease) in other payables	(2,076,950)	15,150
Increase (decrease) in advances received	13,502	(113,667)
Decrease in withholdings	(563,671)	(90,346)
Decrease in accrued expenses	(1,705,600)	(1,643,233)
Increase in provisions	326,635	231,002
Payment of post-employment benefits	(295,378)	(232,658)
Other	(576,003)	(714,900)
Total	(19,427,200)	(7,907,113)

For the six-month periods ended June 30, 2022 and 2021, cash outflows from principal repayment (financial activities) amount to ₩ 485,458 million and ₩ 390,466 million, respectively, and cash outflows due to interest expenses (operating activities) in relation to the lease liabilities amount to ₩ 61,932 million and ₩ 51,611 million, respectively.

25. Financial Risk Management

The Company's financial risk management focuses on minimizing market risk, credit risk, and liquidity risk arising from operating activities. To mitigate these risks, the Company implements and operates a financial risk policy and program that closely monitors and manages such risks. In addition, the Company uses derivatives to hedge certain risk exposure.

The finance team mainly carries out the Company's financial risk management. After implementing the global financial risk management policies, the finance team periodically measures, evaluates, and hedges financial risk.

The Company also manages foreign exchange risk by monitoring foreign exchange rate fluctuations at local finance centers across major regions (United States, United Kingdom, Singapore, China, Brazil, and Russia) and acting as an agent of foreign exchange transactions. In addition, the Company manages liquidity risk by utilizing a globally integrated finance structure.

The Company's financial assets that are under financial risk management are comprised of cash and cash equivalents, short-term financial instruments, financial assets at amortized cost, trade receivables and others. The Company's financial liabilities under financial risk management are comprised of trade payables, borrowings, and others.

(A) Market risk

(1) Foreign exchange risk

The Company is exposed to foreign exchange risk arising from its global operations performed in currencies other than its functional currency. The major currencies that are exposed to foreign exchange risk are the US dollar, Euro, and Indian Rupee.

The Company focuses on minimizing the impact of foreign exchange fluctuation by maintaining the equal amount of assets and liabilities denominated in each foreign currency, irrespective of foreign exchange fluctuation considerations. To prevent exchange position, the Company's foreign exchange management policy requires normal business transactions, including import and export, as well as financing transactions such as depositing and borrowing, to be in local currency or for the cash-in currency to be matched up with the cash-out currency. Moreover, the Company periodically evaluates and monitors the foreign exchange risk to efficiently mitigate such risk, and the speculative foreign exchange transactions are strictly prohibited.

(2) Interest rate risk

Risk of changes in interest rates for floating interest rate financial instruments is defined as the risk that the fair value of components of the statements of financial position, and future cash flows of interest income (expenses) of a financial instrument, will fluctuate because of changes in market interest rates. The Company's position with regard to interest rate risk exposure is mainly driven by its floating interest rate debt obligations and interest-bearing deposits. The Company implemented policies and operates to minimize uncertainty arising from changes in interest rates and financial expenses.

(3) Price risk

The Company's investment portfolio consists of direct and indirect investments in equity instruments classified as financial assets at fair value through other comprehensive income and financial assets at fair value through profit or loss, which is in line with the Company's strategy.

As of June 30, 2022 and 2021, price fluctuation of marketable equity securities (listed stocks) by 1% would result in changes in other comprehensive income (before income tax) of ₩ 90,393 million and ₩ 107,635 million, respectively, and changes in profit before tax of ₩ 3,413 million and ₩ 3,941 million, respectively.

(B) Credit risk

Credit risk arises during the normal course of transactions and investing activities where clients or other parties fail to discharge an obligation. The Company monitors and sets the client's and counterparty's credit limit on a periodic basis based on the client's and counterparty's financial conditions, default history and other important factors. Adequate insurance coverage is maintained for trade receivables related to trading partners situated in higher risk countries.

Credit risk can arise from transactions with financial institutions which include financial instrument transactions such as cash and cash equivalents, deposits, and derivative instruments. To minimize such risk, the Company transacts only with banks which have a strong international credit rating (S&P A and above), and all new transactions with financial institutions with no prior transaction history are approved, managed and monitored by the Company's finance team and the local finance center. The Company generally enters into a financial agreement with no restrictions, such as debt ratio covenants, provision of collateral and/or repayment of loans/borrowings. The Company requires separate approvals for contracts with restrictions.

As of the reporting date, the Company estimates that its maximum exposure to credit risk is the carrying amount of its financial assets, net of impairment losses.

(C) Liquidity risk

Due to large investments made by the Company, maintaining adequate levels of liquidity risk is critical. The Company strives to achieve this goal by periodically forecasting its capital balance, estimating required cash levels, and managing income and expenses.

The Company manages its liquidity risk by periodically forecasting projected cash flows. If abnormal signs are identified, the Company works with the local finance center and provides liquidity support by utilizing a globally integrated finance structure, such as Cash Pooling. In addition, the Company maintains a liquidity management process which provides additional financial support from the local finance center and the Company. The Cash Pooling program allows the sharing of surplus funds among entities and contributes to minimizing liquidity risk and strengthening the Company's competitive position by reducing capital operation expenses and financial expenses.

For the need of large scale of liquidity, the Company secures credit limit for the overseas subsidiaries through payment guarantees.

(D) Capital risk management

The purpose of capital management is to maintain a sound capital structure. The Company monitors capital on the basis of credit ratings and debt ratio. Debt ratio is calculated by dividing total liabilities by total equity in the financial statements.

The Company has maintained an AA- and Aa3 credit rating from S&P and Moody's, respectively.

The total liabilities to equity ratios as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Total liabilities	120,133,986	121,721,227
Total equity	327,906,664	304,899,931
Debt ratio	36.6%	39.9%

(E) Fair value estimation

- (1) Carrying amounts and fair values of financial instruments by category as of June 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)	June 30, 2022		December 31, 2021	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Cash and cash equivalents	39,583,141	(*)	39,031,415	(*)
Short-term financial instruments	84,428,822	(*)	81,708,986	(*)
Short-term financial assets at amortized cost	1,253,196	(*)	3,369,034	(*)
Short-term financial assets at fair value through profit or loss	55,505	55,505	40,757	40,757
Trade receivables	44,026,232	(*)	40,713,415	(*)
Financial assets at fair value through other comprehensive income	11,610,592	11,610,592	13,965,839	13,965,839
Financial assets at fair value through profit or loss	1,382,193	1,382,193	1,525,344	1,525,344
Other ²	10,362,657	412,881	9,040,189	328,216
Total financial assets	192,702,338		189,394,979	
Financial liabilities				
Trade payables	12,560,726	(*)	13,453,351	(*)
Short-term borrowings	12,989,188	(*)	13,687,793	(*)
Other payables	12,270,350	(*)	14,126,970	(*)
Current portion of long-term liabilities	952,811	6,888	1,329,968	554,106
- Current portion of long-term borrowing	946,457	(*)(*)	852,317	(*)(*)
- Current portion of debentures	6,354	6,888	477,651	554,106
Debentures	553,783	557,308	508,232	546,339
Long-term borrowings	2,943,208	(*)(*)	2,866,156	(*)(*)
Long-term other payables ²	2,400,941	(*)	2,562,158	(*)
Other ²	11,345,268	363,306	10,781,684	337,394
Total financial liabilities	56,016,275		59,316,312	

(*) Assets and liabilities whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

(*) Assets measured at the cost of ₩ 9,949,776 million (December 31, 2021: ₩ 8,711,973 million) and liabilities measured at the cost of ₩ 10,981,962 million (December 31, 2021: ₩ 10,444,290 million) are excluded as the carrying amount is a reasonable estimation of fair value.

(*) Lease liabilities, classified under the current portion of long-term liabilities and long-term borrowings, are excluded from the fair value disclosures in accordance with *Korean IFRS 1107*.

- (2) Fair value hierarchy classifications of the financial instruments that are measured or disclosed at fair value as of June 30, 2022 and December 31, 2021 are as follows:

June 30, 2022				
<i>(In millions of Korean won)</i>	Level 1	Level 2	Level 3	Total balance
1) Assets				
Short-term financial assets at fair value through profit or loss	-	36,796	18,709	55,505
Financial assets at fair value through other comprehensive income	9,039,307	-	2,571,285	11,610,592
Financial assets at fair value through profit or loss	341,326	-	1,040,867	1,382,193
Other	-	390,264	22,617	412,881
2) Liabilities				
Current portion of debentures	-	6,888	-	6,888
Debentures	-	557,308	-	557,308
Other	-	357,868	5,438	363,306

December 31, 2021				
<i>(In millions of Korean won)</i>	Level 1	Level 2	Level 3	Total balance
1) Assets				
Short-term financial assets at fair value through profit or loss	-	35,620	5,137	40,757
Financial assets at fair value through other comprehensive income	11,608,708	-	2,357,131	13,965,839
Financial assets at fair value through profit or loss	478,401	-	1,046,943	1,525,344
Other	-	307,213	21,003	328,216
2) Liabilities				
Current portion of debentures	-	554,106	-	554,106
Debentures	-	546,339	-	546,339
Other	-	331,956	5,438	337,394

The levels of the fair value hierarchy and its application to financial assets and liabilities are described below.

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly
- Level 3: Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs)

The fair value of financial instruments traded in active markets is based on quoted market prices at the statement of financial position date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Company is the current bid price. These instruments are included in Level 1. The instruments included in Level 1 are listed equity investments, most of which are classified as financial assets at fair value through other comprehensive income.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in Level 2.

If one or more of the significant inputs are not based on observable market data, the instrument is included in Level 3.

The Company performs the fair value measurements required for financial reporting purposes, including Level 3 fair values and discusses valuation processes and results at least once every quarter in line with the Company's quarterly reporting dates. The Company's policy is to recognize transfers between levels at the end of the reporting period, if corresponding events or changes in circumstances have occurred.

Specific valuation techniques used to value financial instruments include:

- Quoted market prices or dealer quotes for similar instruments
- The fair value of forward foreign exchange contracts is determined using forward exchange rates at the statement of financial position date, with the resulting value discounted back to present value

Other techniques, such as discounted cash flow analysis, are used to determine fair value for the remaining financial instruments. For trade and other receivables that are classified as current assets, the book value approximates a reasonable estimate of fair value.

(3) Valuation technique and the inputs

The Company utilizes a present value technique to discount future cash flows using a proper interest rate for corporate bonds, government and public bonds, and bank debentures that are classified as Level 2 in the fair value hierarchy.

The following table presents the valuation technique and the inputs used for major financial instruments classified as Level 3 as of June 30, 2022.

(In millions of Korean won and percentage)

Classification	Fair value	Valuation technique	Level 3 inputs	Input range (Weighted average)
Financial assets at fair value through other comprehensive income				
Samsung Venture Investment	28,458	Discounted cash flow	Permanent growth rate	-1.0%~1.0%(0.0%)
			Weighted average cost of capital	15.2%~17.2%(16.2%)
MiCo Ceramics Co., Ltd.	24,801	Discounted cash flow	Permanent growth rate	-1.0%~1.0%(0.0%)
			Weighted average cost of capital	10.7%~12.7%(11.7%)
TCL China Star Optoelectronics Technology Co., Ltd. (CSOT)	1,477,845	Discounted cash flow	Permanent growth rate	-1.0%~1.0%(0.0%)
			Weighted average cost of capital	10.7%~12.7%(11.7%)
China Star Optoelectronics Semiconductor Display Technology Ltd. (CSOSDT)	371,371	Discounted cash flow	Permanent growth rate	-1.0%~1.0%(0.0%)
			Weighted average cost of capital	10.7%~12.7%(11.7%)
Others				
Put option on equity instruments	22,617	Binomial model	Risk-free interest rate	2.9%~3.0%, 2.5%
			Price volatility	21.4%~31.4%(26.4%), 24.9%~34.9%(29.9%)

(4) Changes in Level 3 instruments for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Financial assets		
Balance as of January 1	3,430,214	6,449,139
Acquisitions	108,009	919,311
Disposals	(160,465)	(110,865)
Amount recognized in profit or loss	91,008	127,238
Amount recognized in other comprehensive income	183,532	1,194,086
Others	1,180	(5,692,367)
Balance as of June 30	3,653,478	2,886,542

<i>(In millions of Korean won)</i>	2022	2021
Financial liabilities		
Balance as of January 1	5,438	9,248
Others	-	(2,176)
Balance as of June 30	5,438	7,072

(5) Sensitivity analysis for recurring fair value measurements categorized within Level 3

Sensitivity analysis of financial instruments is performed to measure favorable and unfavorable changes in the fair value of financial instruments which are affected by the unobservable parameters, using a statistical technique. When the fair value is affected by more than two input parameters, the amounts represent the most favorable or unfavorable.

The results of the sensitivity analysis for effect on profit or loss (before tax amount for other comprehensive income or loss) from changes in inputs for major financial instruments which are categorized within Level 3 and subject to sensitivity analysis are as follows:

<i>(In millions of Korean won)</i>	Favorable changes		Unfavorable changes	
	Profit or loss	Equity	Profit or loss	Equity
Financial assets at fair value through other comprehensive income ¹	-	161,590	-	(116,634)
Others ²	2,912	-	(4,158)	-

¹ For equity securities, changes in fair value are calculated with the correlation between growth rate (-1%~1%) and discount rate, which are significant unobservable inputs.

² Changes were calculated based on correlation between fair value and price volatility (-5%~5%), which is significant unobservable input.

26. Segment Information

(A) Operating segment information

The chief operating decision-maker has been identified as the Management Committee. The Company determines operating segments based on the units reported to the Management Committee. The Management Committee reviews the operating profits of each operating segment in order to assess performance and to make strategic decisions regarding the allocation of resources to the segment.

Sales revenue consists mostly of product sales. The operating segments are product-based and are identified based on the internal organization and revenue streams. As of the reporting date, the operating segments are comprised of DX, DS, SDC, Harman, and others.

The segment information for each reporting period is prepared after allocating intercompany reconciliations to depreciation, amortization of intangible assets and operating profits. Total assets and liabilities of each operating segment are excluded from the disclosure as these have not been provided regularly to the Management Committee.

(1) For the three-month period ended June 30, 2022

<i>(In millions of Korean won)</i>	DX	DS	SDC	Harman	Total¹
Net revenue	44,455,371	28,497,568	7,710,680	2,982,834	77,203,607
Depreciation	610,308	7,051,507	1,284,450	80,322	9,068,814
Amortization	403,013	204,895	59,793	50,151	772,552
Operating profit	3,021,697	9,981,053	1,057,643	101,642	14,097,045

¹ Other operating segments are not separately disclosed.

Net revenue by major product for the three-month period ended June 30, 2022 are as follows:

<i>(In millions of Korean won)</i>	Image devices	Mobile devices	Memory	Display panels	Total¹
Net revenue	7,537,814	28,000,484	21,075,357	7,710,680	77,203,607

¹ Other operating segments are not separately disclosed.

(2) For the six-month period ended June 30, 2022

<i>(In millions of Korean won)</i>	DX	DS	SDC	Harman	Total¹
Net revenue	92,524,038	55,364,982	15,681,171	5,649,180	154,985,105
Depreciation	1,215,157	13,935,829	2,684,014	158,693	18,077,845
Amortization	796,775	412,182	119,181	107,677	1,543,029
Operating profit	7,577,158	18,431,184	2,150,507	203,202	28,218,454

¹ Other operating segments are not separately disclosed.

Net revenue by major product for the six-month period ended June 30, 2022 are as follows:

<i>(In millions of Korean won)</i>	Image devices	Mobile devices	Memory	Display panels	Total¹
Net revenue	16,255,835	59,228,241	41,166,821	15,681,171	154,985,105

¹ Other operating segments are not separately disclosed.

(3) For the three-month period ended June 30, 2021

<i>(In millions of Korean won)</i>	DX	DS	SDC	Harman	Total¹
Net revenue	36,395,980	23,053,778	6,867,870	2,419,406	63,671,585
Depreciation	585,976	5,157,773	1,348,389	76,676	7,213,089
Amortization	357,434	272,900	60,122	56,758	776,313
Operating profit	4,339,240	6,929,550	1,281,864	106,733	12,566,745

¹ Other operating segments are not separately disclosed.

Net revenue by major product for the three-month period ended June 30, 2021 are as follows:

<i>(In millions of Korean won)</i>	Image devices	Mobile devices	Memory	Display panels	Total¹
Net revenue	7,170,238	21,430,950	17,879,766	6,867,870	63,671,585

¹ Other operating segments are not separately disclosed.

(4) For the six-month period ended June 30, 2021

<i>(In millions of Korean won)</i>	DX	DS	SDC	Harman	Total¹
Net revenue	78,872,904	42,370,279	13,790,917	4,786,673	129,060,088
Depreciation	1,166,968	10,160,296	2,794,527	153,138	14,360,825
Amortization	651,301	530,455	119,585	112,780	1,471,855
Operating profit	9,848,743	10,290,319	1,646,292	219,858	21,949,613

¹ Other operating segments are not separately disclosed.

Net revenue by major product for the six-month period ended June 30, 2022 are as follows:

<i>(In millions of Korean won)</i>	Image devices	Mobile devices	Memory	Display panels	Total¹
Net revenue	14,390,634	49,634,034	32,314,644	13,790,917	129,060,088

¹ Other operating segments are not separately disclosed.

(B) Regional information

The regional segment information provided to the Management Committee for the reportable segments as of and for the six-month periods ended June 30, 2022 and 2021 are as follows:

(1) As of and for the three-month period ended June 30, 2022

<i>(In millions of Korean won)</i>	Korea	America	Europe	Asia and Africa	China	Intercompany elimination	Total
Net segment revenue	11,262,111	32,479,799	11,100,501	12,010,024	10,351,172	-	77,203,607
Non-current assets ¹	130,507,765	11,857,401	5,873,791	9,396,020	17,570,719	(854,194)	174,351,502

¹ Financial instruments, deferred tax assets, and investments in associates and joint ventures are excluded from non-current assets.

(2) As of and for the six-month period ended June 30, 2022

<i>(In millions of Korean won)</i>	Korea	America	Europe	Asia and Africa	China	Intercompany elimination	Total
Net segment revenue	23,335,805	61,573,772	24,344,402	24,913,418	20,817,708	-	154,985,105
Non-current assets ¹	130,507,765	11,857,401	5,873,791	9,396,020	17,570,719	(854,194)	174,351,502

¹ Financial instruments, deferred tax assets, and investments in associates and joint ventures are excluded from non-current assets.

(3) As of and for the three-month period ended June 30, 2021

<i>(In millions of Korean won)</i>	Korea	America	Europe	Asia and Africa	China	Intercompany elimination	Total
Net segment revenue	10,329,787	21,993,772	10,868,102	8,927,787	11,552,137	-	63,671,585
Non-current assets ¹	118,732,676	9,916,326	6,052,990	9,251,297	17,221,059	(1,037,473)	160,136,875

¹ Financial instruments, deferred tax assets, and investments in associates and joint ventures are excluded from non-current assets.

(4) As of and for the six-month period ended June 30, 2021

<i>(In millions of Korean won)</i>	Korea	America	Europe	Asia and Africa	China	Intercompany elimination	Total
Net segment revenue	20,363,266	42,680,194	24,077,485	19,755,166	22,183,977	-	129,060,088
Non-current assets ¹	118,732,676	9,916,326	6,052,990	9,251,297	17,221,059	(1,037,473)	160,136,875

¹ Financial instruments, deferred tax assets, and investments in associates and joint ventures are excluded from non-current assets.

27. Related Party Transactions

(A) Sale and purchase transactions

Sale and purchase transactions with related parties for the six-month periods ended June 30, 2022 and 2021 are as follows:

		2022			
(In millions of Korean won)	Name of company ¹	Sales	Disposal of non-current assets	Purchases	Purchase of non-current assets
Associates and joint ventures	Samsung SDS	129,044	-	889,262	185,302
	Samsung Electro-Mechanics	48,221	-	769,412	-
	Samsung SDI	43,494	-	392,753	7,252
	Cheil Worldwide	30,204	-	456,042	-
	Other	685,854	-	7,752,693	55,766
	Total	936,817	-	10,260,162	248,320
Other related parties	Samsung C&T	28,750	-	240,033	2,832,163
	Other	189,235	-	834,358	149,510
	Total	217,985	-	1,074,391	2,981,673
Other ²	Samsung Engineering	970	-	14,328	1,068,938
	S-1	4,871	-	246,721	14,330
	Other	83,692	-	133,566	145,829
	Total	89,533	-	394,615	1,229,097

¹ Transactions with separate entities that are related parties of the Company.

² Although these entities are not related parties of the Company in accordance with *Korean IFRS 1024*, they belong to the same large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

		2021			
(In millions of Korean won)	Name of company ¹	Sales	Disposal of non-current assets	Purchases	Purchase of non-current assets
Associates and joint ventures	Samsung SDS	84,835	-	829,849	253,116
	Samsung Electro-Mechanics	33,736	-	717,016	-
	Samsung SDI	37,164	269	291,022	16,832
	Cheil Worldwide	25,839	-	357,625	17
	Other	561,509	68	5,475,204	63,979
	Total	743,083	337	7,670,716	333,944
Other related parties	Samsung C&T	48,584	12,134	153,854	1,834,247
	Other	200,925	-	888,236	318,677
	Total	249,509	12,134	1,042,090	2,152,924
Other ²	Samsung Engineering	223	-	17,218	654,863
	S-1	5,864	-	229,878	22,979
	Other	61,198	2,371	98,463	53,255
	Total	67,285	2,371	345,559	731,097

¹ Transactions with separate entities that are related parties of the Company.

² Although these entities are not related parties of the Company in accordance with *Korean IFRS 1024*, they belong to the same large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

(B) Balances of receivables and payables

Balances of receivables and payables arising from sales and purchases of goods and services as of June 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)	Name of company ¹	June 30, 2022	
		Receivables	Payables ²
Associates and joint ventures	Samsung SDS	73,236	460,932
	Samsung Electro-Mechanics	12,506	169,754
	Samsung SDI	118,051	69,351
	Cheil Worldwide	89	435,480
	Other	379,135	1,230,134
	Total	583,017	2,365,651
Other related parties	Samsung C&T	223,821	1,463,031
	Other	20,342	282,324
	Total	244,163	1,745,355
Other ³	Samsung Engineering	793	317,766
	S-1	997	41,098
	Other	12,732	81,872
	Total	14,522	440,736

¹ Balances due from and to separate entities that are related parties of the Company.

² Payables and others include lease liabilities.

³ Although these entities are not related parties of the Company in accordance with *Korean IFRS 1024*, they belong to the same large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

(In millions of Korean won)	Name of company ¹	December 31, 2021	
		Receivables	Payables ²
Associates and joint ventures	Samsung SDS	64,521	616,949
	Samsung Electro-Mechanics	3,659	176,549
	Samsung SDI	130,638	100,835
	Cheil Worldwide	206	428,090
	Other	397,709	1,361,554
	Total	596,733	2,683,977
Other related parties	Samsung C&T	220,550	1,739,997
	Other	20,306	251,766
	Total	240,856	1,991,763
Other ³	Samsung Engineering	338	1,151,536
	S-1	2,423	40,558
	Other	48,703	185,256
	Total	51,464	1,377,350

¹ Balances due from and to separate entities that are related parties of the Company.

² Payables and others include lease liabilities.

³ Although these entities are not related parties of the Company in accordance with *Korean IFRS 1024*, they belong to the same large enterprise group in accordance with the Monopoly Regulation and Fair Trade Act.

- (C) For the six-month periods ended June 30, 2022 and 2021, the Company invested ₩ 903,758 million and ₩ 28,600 million, respectively, in associates and joint ventures. In addition, for the six-month periods ended June 30, 2022 and 2021, the Company recovered ₩ 6,787 million and ₩ 916 million of investments in associates and joint ventures.
- (D) For the six-month periods ended June 30, 2022 and 2021, the Company declared dividend of ₩ 835,814 million and ₩ 2,683,584 million, respectively, to related parties. In addition, for the six-month periods ended June 30, 2022 and 2021, the Company declared dividends of ₩ 64,116 million and ₩ 203,623 million, respectively, to the entities that are not related parties of the Company in accordance with Korean IFRS 1024, but belong to the same conglomerate according to the Monopoly Regulation and Fair Trade Act. As of June 30, 2022 and December 31, 2021, there is no dividend payables to the entities that are not in scope of Korean IFRS 1024.
- (E) For the six-month period ended June 30, 2022, the Company has not entered into any lease agreement with its related parties, while the Company entered into lease agreements of ₩ 12,602 million with its related parties during the six-month period ended June 30, 2021. Lease payments made to the related parties for the six-month periods ended June 30, 2022 and 2021 amounted to ₩ 12,493 million and ₩ 17,940 million, respectively.
- (F) Key management compensation

The compensation paid or payable to key management (executive directors) for their services for the six-month periods ended June 30, 2022 and 2021 consists of:

<i>(In millions of Korean won)</i>	2022	2021
Short-term employee benefits	4,694	4,550
Post-employment benefits	289	443
Other long-term employee benefits	3,873	4,046

4. Non-consolidated financial statements

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	June 30, 2022 KRW	December 31, 2021 KRW	June 30, 2022 USD	December 31, 2021 USD
Assets					
Current assets					
Cash and cash equivalents	3, 25	3,079,118	3,918,872	2,499,868	3,181,646
Short-term financial instruments	3, 25	13,104,200	15,000,576	10,639,012	12,178,638
Trade receivables	3, 25	32,463,228	33,088,247	26,356,181	26,863,620
Non-trade receivables	3, 25	1,566,416	1,832,488	1,271,739	1,487,757
Prepaid expenses		995,039	817,689	807,850	663,864
Inventories	5	21,390,252	15,973,053	17,366,275	12,968,170
Other current assets	3, 25	3,596,224	2,922,491	2,919,695	2,372,705
		76,194,477	73,553,416	61,860,620	59,716,400
Non-current assets					
Financial assets at fair value through other comprehensive income	3, 4, 25	1,503,038	1,662,532	1,220,283	1,349,773
Financial assets at fair value through profit or loss	3, 4, 25	1,876	2,135	1,523	1,733
Investments in subsidiaries, associates and joint ventures	6	57,362,214	56,225,599	46,571,120	45,648,327
Property, plant and equipment	7	108,381,976	103,667,025	87,992,942	84,164,977
Intangible assets	8	8,181,534	8,657,456	6,642,407	7,028,798
Net defined benefit assets	11	1,727,747	2,324,291	1,402,720	1,887,041
Deferred income tax assets		1,782,944	1,211,100	1,447,533	983,265
Other non-current assets	3, 25	3,835,491	3,808,630	3,113,951	3,092,144
		182,776,820	177,558,768	148,392,479	144,156,058
Total assets		258,971,297	251,112,184	210,253,099	203,872,458

The above interim separate statements of financial position should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	June 30, 2022 KRW	December 31, 2021 KRW	June 30, 2022 USD	December 31, 2021 USD
Liabilities and Equity					
Current liabilities					
Trade payables	3, 25	12,177,539	11,557,441	9,886,676	9,383,232
Short-term borrowings	3, 9, 25	8,507,002	9,204,268	6,906,648	7,472,743
Other payables	3, 25	11,813,352	13,206,753	9,591,001	10,722,272
Advances received	14	429,111	474,731	348,386	385,424
Withholdings	3, 25	396,189	624,585	321,657	507,087
Accrued expenses	3, 14, 25	7,391,309	8,275,410	6,000,841	6,718,623
Current income tax liabilities		4,849,560	5,599,896	3,937,251	4,546,432
Current portion of long-term liabilities	3, 9, 10, 25	127,811	139,328	103,767	113,117
Provisions	12	4,188,770	3,643,853	3,400,770	2,958,364
Other current liabilities	14	430,218	341,038	349,284	276,882
		50,310,861	53,067,303	40,846,281	43,084,176
Non-current liabilities					
Debentures	3, 10, 25	31,771	29,048	25,794	23,583
Long-term borrowings	3, 9, 25	401,816	431,915	326,226	350,662
Long-term other payables	3, 25	2,532,115	2,653,715	2,055,768	2,154,493
Long-term provisions	12	1,722,050	1,659,774	1,398,095	1,347,534
Other non-current liabilities		58,237	76,697	47,281	62,270
		4,745,989	4,851,149	3,853,164	3,938,542
Total liabilities		55,056,850	57,918,452	44,699,445	47,022,718

The above interim separate statements of financial position should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	June 30, 2022 KRW	December 31, 2021 KRW	June 30, 2022 USD	December 31, 2021 USD
Equity					
Preference shares	15	119,467	119,467	96,993	96,993
Ordinary shares	15	778,047	778,047	631,679	631,679
Share premium		4,403,893	4,403,893	3,575,424	3,575,424
Retained earnings	16	199,712,456	188,774,335	162,142,150	153,261,730
Other components of equity	17	(1,099,416)	(882,010)	(892,592)	(716,086)
Total equity		203,914,447	193,193,732	165,553,654	156,849,740
Total liabilities and equity		258,971,297	251,112,184	210,253,099	203,872,458

The above interim separate statements of financial position should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF PROFIT OR LOSS

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	For the three-month periods ended June 30,				For the six-month periods ended June 30,			
		2022	2021	2022	2021	2022	2021	2022	2021
		KRW	KRW	USD	USD	KRW	KRW	USD	USD
Revenue	26	58,641,288	45,768,634	47,609,572	37,158,547	115,365,546	90,811,024	93,662,749	73,727,473
Cost of sales	18	39,964,268	31,002,588	32,446,110	25,170,319	79,149,180	64,140,150	64,259,478	52,073,977
Gross profit		18,677,020	14,766,046	15,163,462	11,988,228	36,216,366	26,670,874	29,403,271	21,653,496
Selling and administrative expenses	18, 19	8,518,142	7,047,292	6,915,692	5,721,541	16,905,657	14,506,644	13,725,331	11,777,625
Operating profit	26	10,158,878	7,718,754	8,247,770	6,266,687	19,310,709	12,164,230	15,677,940	9,875,871
Other non-operating income	20	144,397	4,281,927	117,233	3,476,402	427,668	5,639,174	347,214	4,578,321
Other non-operating expense	20	99,176	549,017	80,519	445,735	153,785	597,997	124,855	485,501
Financial income	21	2,489,143	757,914	2,020,880	615,334	4,229,038	1,678,678	3,433,463	1,362,882
Financial expense	21	2,433,137	703,711	1,975,410	571,328	3,875,505	1,560,862	3,146,437	1,267,229
Profit before income tax		10,260,105	11,505,867	8,329,954	9,341,360	19,938,125	17,323,223	16,187,325	14,064,344
Income tax expense	22	2,068,797	2,376,677	1,679,611	1,929,571	4,094,874	3,646,429	3,324,538	2,960,456
Profit for the period		8,191,308	9,129,190	6,650,343	7,411,789	15,843,251	13,676,794	12,862,787	11,103,888
Earnings per share (in Korean won, in US dollars)	23								
- Basic		1,206	1,344	0.98	1.09	2,332	2,013	1.89	1.63
- Diluted		1,206	1,344	0.98	1.09	2,332	2,013	1.89	1.63

The above interim separate statements of profit or loss should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF COMPREHENSIVE INCOME

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	For the three-month periods ended June 30,				For the six-month periods ended June 30,			
		2022	2021	2022	2021	2022	2021	2022	2021
		KRW	KRW	USD	USD	KRW	KRW	USD	USD
Profit for the period		8,191,308	9,129,190	6,650,343	7,411,789	15,843,251	13,676,794	12,862,787	11,103,888
Other comprehensive income (loss)									
Items that will not be reclassified subsequently to profit or loss :									
Loss on valuation of financial assets at fair value through other comprehensive income, net of tax	17	(61,732)	(61,578)	(50,119)	(49,994)	(115,633)	(7,602)	(93,880)	(6,172)
Remeasurement of net defined benefit assets, net of tax	17	(38,746)	(18,651)	(31,457)	(15,142)	(101,773)	(56,621)	(82,626)	(45,969)
Items that may be reclassified subsequently to profit or loss:		-	-	-	-	-	-	-	-
Other comprehensive loss for the period, net of tax		(100,478)	(80,229)	(81,576)	(65,136)	(217,406)	(64,223)	(176,506)	(52,141)
Total comprehensive income for the period		8,090,830	9,048,961	6,568,767	7,346,653	15,625,845	13,612,571	12,686,281	11,051,747

The above interim separate statements of comprehensive income should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF CHANGES IN EQUITY

(In millions of Korean won)

2021 KRW	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Total
Balance as of January 1, 2021		119,467	778,047	4,403,893	178,284,102	(268,785)	183,316,724
Profit for the period		-	-	-	13,676,794	-	13,676,794
Loss on valuation of financial assets at fair value through other comprehensive income, net of tax		-	-	-	-	(7,602)	(7,602)
Remeasurement of net defined benefit assets, net of tax		-	-	-	-	(56,621)	(56,621)
Total comprehensive income (loss) for the period		-	-	-	13,676,794	(64,223)	13,612,571
Dividends declared		-	-	-	(15,576,414)	-	(15,576,414)
Total transactions with owners		-	-	-	(15,576,414)	-	(15,576,414)
Balance as of June 30, 2021		119,467	778,047	4,403,893	176,384,482	(333,008)	181,352,881

The above interim separate statements of changes in equity should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF CHANGES IN EQUITY

(In thousands of US dollars (Note 2.3))

2021 USD	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Total
Balance as of January 1, 2021		96,993	631,679	3,575,424	144,744,941	(218,221)	148,830,816
Profit for the period		-	-	-	11,103,888	-	11,103,888
Loss on valuation of financial assets at fair value through other comprehensive income, net of tax		-	-	-	-	(6,172)	(6,172)
Remeasurement of net defined benefit assets, net of tax		-	-	-	-	(45,969)	(45,969)
Total comprehensive income (loss) for the period		-	-	-	11,103,888	(52,141)	11,051,747
Dividends declared		-	-	-	(12,646,148)	-	(12,646,148)
Total transactions with owners		-	-	-	(12,646,148)	-	(12,646,148)
Balance as of June 30, 2021		96,993	631,679	3,575,424	143,202,681	(270,362)	147,236,415

The above interim separate statements of changes in equity should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF CHANGES IN EQUITY

(In millions of Korean won)

2022 KRW	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Total
Balance as of January 1, 2022		119,467	778,047	4,403,893	188,774,335	(882,010)	193,193,732
Profit for the period		-	-	-	15,843,251	-	15,843,251
Loss on valuation of financial assets at fair value through other comprehensive income, net of tax	17	-	-	-	-	(115,633)	(115,633)
Remeasurement of net defined benefit assets, net of tax	17	-	-	-	-	(101,773)	(101,773)
Total comprehensive income (loss) for the period		-	-	-	15,843,251	(217,406)	15,625,845
Dividends declared		-	-	-	(4,905,130)	-	(4,905,130)
Total transactions with owners		-	-	-	(4,905,130)	-	(4,905,130)
Balance as of June 30, 2022		119,467	778,047	4,403,893	199,712,456	(1,099,416)	203,914,447

The above interim separate statements of changes in equity should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF CHANGES IN EQUITY

(In thousands of US dollars (Note 2.3))

2022 USD	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Total
Balance as of January 1, 2022		96,993	631,679	3,575,424	153,261,730	(716,086)	156,849,740
Profit for the period		-	-	-	12,862,787	-	12,862,787
Loss on valuation of financial assets at fair value through other comprehensive income, net of tax	17	-	-	-	-	(93,880)	(93,880)
Remeasurement of net defined benefit assets, net of tax	17	-	-	-	-	(82,626)	(82,626)
Total comprehensive income (loss) for the period		-	-	-	12,862,787	(176,506)	12,686,281
Dividends declared		-	-	-	(3,982,368)	-	(3,982,368)
Total transactions with owners		-	-	-	(3,982,367)	-	(3,982,367)
Balance as of June 30, 2022		96,993	631,679	3,575,424	162,142,150	(892,592)	165,553,654

The above interim separate statements of changes in equity should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF CASH FLOWS

(In millions of Korean won, in thousands of US dollars (Note 2.3))

	Notes	For the six-month periods ended June 30,			
		2022	2021	2022	2021
		KRW	KRW	USD	USD
Operating activities					
Profit for the period		15,843,251	13,676,794	12,862,787	11,103,888
Adjustments	24	18,238,275	9,127,825	14,807,254	7,410,680
Changes in assets and liabilities arising from operating activities	24	(7,706,823)	419,286	(6,257,000)	340,410
Cash generated from operations		26,374,703	23,223,905	21,413,041	18,854,978
Interest received		161,320	167,563	130,972	136,041
Interest paid		(117,383)	(45,404)	(95,301)	(36,863)
Dividends received		137,839	5,200,354	111,908	4,222,053
Income tax paid		(5,334,590)	(3,790,164)	(4,331,036)	(3,077,151)
Net cash from operating activities		21,221,889	24,756,254	17,229,584	20,099,058
Investing activities					
Net decrease in short-term financial instruments		1,896,376	16,397,999	1,539,626	13,313,175
Acquisition of financial assets at fair value through other comprehensive income		-	(43,009)	-	(34,918)
Disposal of financial assets at fair value through profit or loss		150	90	122	73
Disposal of investments in subsidiaries, associates and joint ventures		75,028	310,538	60,914	252,119
Acquisition of investments in subsidiaries, associates and joint ventures		(940,489)	(41,640)	(763,562)	(33,807)
Disposal of property, plant and equipment		239,039	318,318	194,071	258,435
Acquisition of property, plant and equipment		(16,286,602)	(17,369,129)	(13,222,734)	(14,101,614)
Disposal of intangible assets		197	455	160	369
Acquisition of intangible assets		(1,335,396)	(1,454,242)	(1,084,179)	(1,180,667)
Cash outflow from other investing activities		(63,929)	(86,612)	(51,904)	(70,318)
Net cash used in investing activities		(16,415,626)	(1,967,232)	(13,327,486)	(1,597,153)

The above interim separate statements of cash flows should be read in conjunction with the accompanying notes.

Samsung Electronics Co., Ltd.

INTERIM SEPARATE STATEMENTS OF CASH FLOWS

(In millions of Korean won, in thousands of US dollars (Note 2.3))

Notes	For the six-month periods ended June 30,			
	2022	2021	2022	2021
	KRW	KRW	USD	USD
Financing activities				
Net decrease in short-term borrowings	(669,755)	(3,266,633)	(543,759)	(2,652,107)
Repayment of debentures and long-term borrowings	(72,124)	(55,324)	(58,556)	(44,916)
Dividends paid	(4,905,061)	(15,574,586)	(3,982,311)	(12,644,664)
Net cash used in financing activities	(5,646,940)	(18,896,543)	(4,584,626)	(15,341,687)
Effect of foreign exchange rate changes	923	18	750	15
Net increase (decrease) in cash and cash equivalents	(839,754)	3,892,497	(681,778)	3,160,233
Cash and cash equivalents				
Beginning of the period	3,918,872	989,045	3,181,646	802,984
End of the period	3,079,118	4,881,542	2,499,868	3,963,217

The above interim separate statements of cash flows should be read in conjunction with the accompanying notes.

5. Notes to non-consolidated financial statements

As of June 30, 2022 and December 31, 2021, and
for the six-month periods ended June 30, 2022 and 2021

1. General Information

Samsung Electronics Co., Ltd. (the “Company”) was incorporated under the laws of the Republic of Korea in 1969 and listed its shares on the Korea Stock Exchange in 1975. The Company operates three business divisions: Device eXperience (“DX”) and Device Solutions (“DS”). DX division includes digital TVs, refrigerators, mobile phones, and communication systems. DS division includes semiconductor products such as memory, foundry and system LSI. The Company is domiciled in the Republic of Korea and is located in Suwon, the Republic of Korea.

These financial statements have been prepared in accordance with *Korean IFRS 1027, Separate Financial Statements*.

2. Significant Accounting Policies

2.1 Basis of Presentation

The Company 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 interim separate financial statements have been condensed, restructured and translated into English from the Korean language financial statements.

The interim financial statements for the six-month periods ended June 30, 2022, have been prepared in accordance with *Korean IFRS 1034, Interim Financial Reporting*. These interim financial statements have been prepared in accordance with the Korean IFRS which is effective as of June 30, 2022.

(A) New and amended standards adopted by the Company

The Company applied the following amended and enacted standards for the first time for their annual reporting period commencing January 1, 2022:

Amendments to Korean IFRS 1116, Lease

The amendments to Korean IFRS 1116 introduced a practical expedient that provided practical relief to lessees in accounting for rent concessions occurring as a direct consequence of COVID-19. The amendments extend the practical expedient to apply to reduction in lease payments originally due on or before June 30, 2022. The application of the amendments does not have a significant impact on the Company’s interim separate financial statements.

Amendments to Korean IFRS 1103, Business Combinations

The amendments update Korean IFRS so that it refers to the amended conceptual framework for financial reporting for assets and liabilities recognized upon business combination, along with adding requirement that for transactions and other events within the scope of IAS 37 or IFRIC 21, an acquirer applies IAS 37 or IFRIC 21 to identify the liabilities it has assumed in a business combination. The amendments also add an explicit statement that an acquirer does not recognise contingent assets acquired in a business combination. The application of the amendments does not have a significant impact on the Company’s interim separate financial statements.

Amendments to Korean IFRS 1016, Property, Plant and Equipment

The amendments prohibit deducting from the cost of an item of property, plant and equipment any proceeds from selling items produced while bringing that asset to the location and condition necessary for it to be capable of operating in the manner intended by management. Instead, an entity recognizes the proceeds from selling such items, and the cost of producing those items, in profit or loss. The application of the amendments does not have a significant impact on the Company's interim separate financial statements.

Amendments to Korean IFRS 1037, Provisions, Contingent Liabilities and Contingent Assets

The amendments specify that the cost of fulfilling a contract comprises the costs that relate directly to the contract, and that costs that relate directly to a contract consist of both the incremental costs of fulfilling that contract and an allocation of other costs that relate directly to fulfilling contracts. The application of the amendments does not have a significant impact on the Company's interim separate financial statements.

(B) New and amended standards not yet adopted by the Company

The amended accounting standard issued that is not mandatory for the annual reporting period commencing January 1, 2022 and has not been early adopted by the Company is as follows:

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

The amendments to K-IFRS 1001 clarify that the presentation of liabilities as current or non-current should be based on rights that are in existence at the end of the reporting period, and that the classification is unaffected by expectations of management or whether an entity will exercise its right to defer settlement of a liability. The amendments also introduce a definition of settlement to make clear that settlement can refer to the transfer to the counterparty of the entity's own equity instruments, unless the entity classifies the option as an equity instrument, recognising it separately from the liability as an equity component of a compound financial instrument. The amendments are applied retrospectively for annual periods beginning on or after January 1, 2023, with early application permitted.

Amendments to Korean IFRS 1001 Presentation of Financial Statements - Disclosure of Accounting Policies

The amendments require companies to define and disclose their 'material' accounting policy information instead of its 'significant' accounting policies. The amendments explain how an entity can identify material accounting policy information. The amendments to K-IFRS 1001 are effective for annual periods beginning on or after January 1, 2023, with earlier application permitted and are applied prospectively.

Amendments to Korean IFRS 1008 Accounting Policies, Changes in Accounting Estimates and Errors - Definition of Accounting Estimates

The amendments clarify the definition of a change in accounting estimates, and specify how to distinguish from a change in accounting policies. The amendments are effective for annual periods beginning on or after January 1, 2023 to changes in accounting policies and changes in accounting estimates that occur on or after the beginning of that period, with earlier application permitted.

The amendments add to the initial recognition exemption that the initial recognition exemption does not apply to transactions in which equal amounts of deductible and taxable temporary differences arise on initial recognition. The amendments are effective for annual reporting period beginning on or after January 1, 2023, with earlier application permitted.

2.2 Accounting Policies

Significant accounting policies and method of computation used in the preparation of the interim financial statements are consistent with those of the 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 and as described below.

(A) 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 of the interim period.

2.3 Convenience Translation into United States Dollar Amounts

The Company operates primarily in Korean won and its official accounting records are maintained in Korean won. The US dollar amounts provided in the financial statements represent supplementary information solely for the convenience of the reader. All Korean won amounts are expressed in US dollars at the rate of ₩ 1,231.7 to \$1, the average exchange rate for the six-month periods ended June 30, 2022. Such presentation is not in accordance with generally accepted accounting principles, and should not be construed as a representation that the Korean won amounts shown could be readily converted, realized or settled in US dollars at this or at any other rate.

2.4 Critical Accounting Estimates and Assumptions

In preparing the interim financial statements, the management of the Company makes judgements, estimates and assumptions on matters which affect the application of policies and reported amounts of assets, liabilities, income and expenses. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The resulting accounting estimates, by definition, seldom equal the related actual results. The spread of COVID-19 may result in changes to the Company's assumptions and estimates, but its potential financial impact cannot be reasonably estimated as of the reporting date.

Critical accounting estimates and assumptions made in the preparation of the interim financial statements are consistent with those applied in the preparation of the annual financial statements for the year ended December 31, 2021, except for the estimates used to determine the income tax expense.

3. Financial Instruments by Category

(A) Categorizations of financial assets and liabilities as of June 30, 2022 and December 31, 2021 are as follows:

(1) As of June 30, 2022

<i>(In millions of Korean won)</i>	Financial assets measured at amortized cost	Financial assets measured at fair value through other comprehensive income	Financial assets measured at fair value through profit or loss	Total
Financial assets				
Cash and cash equivalents	3,079,118	-	-	3,079,118
Short-term financial instruments	13,104,200	-	-	13,104,200
Trade receivables	32,463,228	-	-	32,463,228
Financial assets at fair value through other comprehensive income	-	1,503,038	-	1,503,038
Financial assets at fair value through profit or loss	-	-	1,876	1,876
Other	5,488,428	-	-	5,488,428
Total	54,134,974	1,503,038	1,876	55,639,888

<i>(In millions of Korean won)</i>	Financial liabilities measured at amortized cost	Other financial liabilities¹	Total
Financial liabilities			
Trade payables	12,177,539	-	12,177,539
Short-term borrowings	-	8,507,002	8,507,002
Other payables	11,594,599	-	11,594,599
Current portion of long-term liabilities	6,354	121,457	127,811
Debentures	31,771	-	31,771
Long-term borrowings	-	401,816	401,816
Long-term other payables	2,174,836	-	2,174,836
Other	3,421,604	-	3,421,604
Total	29,406,703	9,030,275	38,436,978

¹ Other financial liabilities include collateralized borrowings and lease liabilities which are not subject to categorizations.

(2) As of December 31, 2021

<i>(In millions of Korean won)</i>	Financial assets measured at amortized cost	Financial assets measured at fair value through other comprehensive income	Financial assets measured at fair value through profit or loss	Total
Financial assets				
Cash and cash equivalents	3,918,872	-	-	3,918,872
Short-term financial instruments	15,000,576	-	-	15,000,576
Trade receivables	33,088,247	-	-	33,088,247
Financial assets at fair value through other comprehensive income	-	1,662,532	-	1,662,532
Financial assets at fair value through profit or loss	-	-	2,135	2,135
Other	5,076,418	-	-	5,076,418
Total	57,084,113	1,662,532	2,135	58,748,780

<i>(In millions of Korean won)</i>	Financial liabilities measured at amortized cost	Other financial liabilities¹	Total
Financial liabilities			
Trade payables	11,557,441	-	11,557,441
Short-term borrowings	-	9,204,268	9,204,268
Other payables	12,948,960	-	12,948,960
Current portion of long-term liabilities	5,810	133,518	139,328
Debentures	29,048	-	29,048
Long-term borrowings	-	431,915	431,915
Long-term other payables	2,335,218	-	2,335,218
Others	3,056,156	-	3,056,156
Total	29,932,633	9,769,701	39,702,334

¹ Other financial liabilities include collateralized borrowings and lease liabilities which are not subject to categorizations.

4. Financial Assets at Fair Value

(A) Details of financial assets at fair value as of June 30, 2022 and December 31, 2021 are as follows:

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

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Equity instruments	1,503,038	1,662,532

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

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Debt instruments	1,876	2,135

(B) Details of listed equity securities of financial assets at fair value as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won, number of shares and percentage)</i>	June 30, 2022			December 31, 2021	
	Number of shares owned	Percentage of ownership ¹ (%)	Acquisition cost	Carrying amount (Market value)	Carrying amount (Market value)
Samsung Heavy Industries	134,027,281	15.2	932,158	813,546	759,935
Hotel Shilla	2,004,717	5.1	13,957	142,736	156,368
iMarket Korea	647,320	1.9	324	6,667	6,926
Skylife	240,000	0.5	3,344	1,966	2,194
Yongpyong Resort	400,000	0.8	1,869	1,600	1,958
A-Tech Solution	1,592,000	15.9	26,348	21,412	26,188
Wonik Holdings	1,759,171	2.3	15,410	6,694	8,761
Wonik IPS	1,850,936	3.8	16,214	55,158	78,295
Dongjin Semichem	2,467,894	4.8	48,277	79,219	125,863
Soulbrain Holdings	461,741	2.2	30,752	8,889	15,976
Soulbrain	373,368	4.8	24,866	85,352	103,983
S&S Tech	1,716,116	8.0	65,933	33,893	63,153
YIK Corp	9,601,617	11.7	47,336	38,454	59,530
Kctech	1,022,216	4.9	20,720	18,451	24,584
Lotvacuum	1,267,668	7.1	18,990	14,262	21,805
Newpower	2,140,939	4.9	12,739	8,296	13,723
Fine Semitech	1,522,975	7.0	43,009	22,159	38,607
DNF	810,030	7.0	20,964	11,259	18,509
Marvell	173,187	0.0	11,705	9,747	17,962
SoundHound	1,720,957	0.9	13,719	5,963	-
Total			1,368,634	1,385,723	1,544,320

¹ Ownership represents the Company's ownership of the total ordinary shares issued by each entity.

5. Inventories

Inventories as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022			December 31, 2021		
	Gross amount	Valuation allowance	Carrying amount	Gross amount	Valuation allowance	Carrying amount
Finished goods	5,982,490	(410,325)	5,572,165	3,884,713	(366,987)	3,517,726
Work in process	11,758,546	(503,560)	11,254,986	9,384,285	(222,291)	9,161,994
Raw materials and supplies	4,350,450	(370,273)	3,980,177	3,211,380	(258,464)	2,952,916
Materials in transit	582,924	-	582,924	340,417	-	340,417
Total	22,674,410	(1,284,158)	21,390,252	16,820,795	(847,742)	15,973,053

6. Investments in Subsidiaries, Associates and Joint Ventures

(A) Changes in investments in subsidiaries, associates and joint ventures for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Balance as of January 1	56,225,599	56,587,548
Acquisition	1,211,063	41,640
Disposal	(74,448)	(287,300)
Balance as of June 30	57,362,214	56,341,888

(B) Major investments in associates as of June 30, 2022 are as follows (refer to Note 27 for list of subsidiaries):

Investee	Nature of relationship with associate	Percentage of ownership (%) ¹	Principal business location	Fiscal period-end
Samsung Electro-Mechanics Co., Ltd.	Manufacture and supply electronic components including passive components, circuit boards, and modules	23.7	Korea	December
Samsung SDS Co., Ltd.	Provide IT services including computer programming, system integration and management and logistical services	22.6	Korea	December
Samsung Biologics Co., Ltd.	New business investment	31.2	Korea	December
Samsung SDI Co., Ltd. ²	Manufacture and supply electronics including secondary cell batteries	19.6	Korea	December
Cheil Worldwide, Inc.	Advertising agency	25.2	Korea	December

¹ Ownership represents the Company's ownership of the total ordinary shares issued by each entity.

² The Company's ownership of ordinary shares outstanding is 20.6%.

(C) Fair value of marketable investments in associates as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won and number of shares)</i>	June 30, 2022		December 31, 2021		
	Number of shares held	Market value	Carrying amount	Market value	Carrying amount
Samsung Electro-Mechanics	17,693,084	2,308,947	445,244	3,494,384	445,244
Samsung SDS	17,472,110	2,271,374	560,827	2,734,385	560,827
Samsung Biologics	22,217,309	17,551,674	1,595,892	18,815,659	443,193
Samsung SDI	13,462,673	7,162,142	1,242,605	8,818,051	1,242,605
Cheil Worldwide	29,038,075	689,654	491,599	663,520	491,599

7. Property, Plant and Equipment

(A) Changes in property, plant and equipment for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Balance as of January 1	103,667,025	86,166,924
Acquisition and capital expenditures	16,792,529	16,856,817
Depreciation	(12,020,188)	(9,167,696)
Disposals/scrap/impairment	(157,453)	(173,461)
Other	100,063	(5,553)
Balance as of June 30	108,381,976	93,677,031

(B) Details of depreciation of property, plant and equipment for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Cost of sales	11,133,349	8,326,859
Selling and administrative expenses and other	886,839	840,837
Total	12,020,188	9,167,696

(C) Right-of-use assets as of June 30, 2022 amount to ₩ 682,813 million (December 31, 2021: ₩ 730,325 million). During the six-month periods ended June 30, 2022 and 2021, newly recognized right-of-use assets amount to ₩ 31,866 million and ₩ 130,282 million, respectively, with relevant depreciation of ₩ 79,028 million and ₩ 60,813 million, respectively.

8. Intangible Assets

(A) Changes in intangible assets for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Balance as of January 1	8,657,456	7,002,648
Internally generated /developed	-	170,677
External acquisitions	800,515	3,237,185
Amortization	(1,265,858)	(1,188,525)
Disposals/scrap/impairment	(16,893)	(11,317)
Other	6,314	7,348
Balance as of June 30	8,181,534	9,218,016

(B) Details of amortization of intangible assets for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Cost of sales	967,462	958,792
Selling and administrative expenses and other	298,396	229,733
Total	1,265,858	1,188,525

9. Borrowings

Details of the carrying amounts of borrowings as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	Financial institutions	Interest rate(%) as of June 30, 2022	June 30, 2022	December 31, 2021
Short-term borrowings				
Collateralized borrowings ¹	Woori Bank and other	0.0~13.4	8,507,002	9,204,268
Current portion of long-term borrowings				
Lease liabilities ²	-	1.7	121,457	133,518
Long-term borrowings				
Lease liabilities ²	-	1.7	401,816	431,915

¹ Collateralized borrowings are secured by trade receivables.

² Interest expenses arising from the lease liabilities for the six-month periods ended June 30, 2022 and 2021 amounted to ₩ 4,571 million and ₩ 2,204 million, respectively, which were determined using the weighted average incremental borrowing rate. The right-of-use assets are pledged as collateral to lessors in the event of default.

10. Debentures

Details of the carrying amounts of debentures as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	Issue date	Due date	Interest rate (%) as of June 30, 2022	June 30, 2022	December 31, 2021
US dollar denominated straight bonds ¹	Oct 2, 1997	Oct 1, 2027	7.7	38,787 (USD 30 million)	35,565 (USD 30 million)
Less: Discounts				(662)	(707)
Less: Current Portion				(6,354)	(5,810)
Total				31,771	29,048

¹ US dollar denominated straight bonds are repaid annually for twenty years after a ten-year grace period from the date of issuance. Interest is paid semi-annually.

11. Net Defined Benefit Liabilities (Assets)

- (A) Details of net defined benefit liabilities (assets) recognized in the statements of financial position as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Present value of funded defined benefit obligations	11,720,390	11,155,187
Present value of unfunded defined benefit obligations	19,384	18,449
Subtotal	11,739,774	11,173,636
Fair value of plan assets	(13,467,521)	(13,497,927)
Total	(1,727,747)	(2,324,291)

- (B) The components of defined benefit costs recognized in profit or loss for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Current service cost	515,017	453,725
Net interest income	(45,950)	(20,053)
Total	469,067	433,672

- (C) The expenses related to defined benefit plans recognized in the statements of profit or loss for the six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022	2021
Cost of sales	186,374	169,443
Selling and administrative expenses and other	282,693	264,229
Total	469,067	433,672

12. Provisions

Changes in the provisions for the six-month period ended June 30, 2022 are as follows:

<i>(In millions of Korean won)</i>	Warranty (A)	Royalty expenses (B)	Long-term incentives (C)	Other (D, E)	Total
Balance as of January 1	386,713	1,496,525	558,982	2,861,407	5,303,627
Charged to profit or loss	300,612	541,360	91,345	764,483	1,697,800
Payment	(228,690)	(309,700)	(194,281)	(541,731)	(1,274,402)
Other	-	132,019	-	51,776	183,795
Balance as of June 30	458,635	1,860,204	456,046	3,135,935	5,910,820

- (A) The Company accrues warranty reserves for estimated costs of quality assurance, exchanges, repairs, recalls, and future services based on historical experience and terms of warranty programs.
- (B) The Company recognizes provisions for the estimated royalty expenses that are under negotiation with counterparties. The timing and amount of payment depend on the settlement of the negotiation.
- (C) The Company has a long-term incentive plan for its executives based on three-year management performance criteria and recognizes a provision for the estimated incentive cost for the accrued period.
- (D) The Company records provisions for future expenses expected to be incurred for products that have been discontinued from manufacturing and sales.
- (E) The Company makes provisions for the carrying amounts of emission rights held by the Company and the emission in excess of the emission rights for the applicable years. Details of emission rights and liabilities as of June 30, 2022 are as follows:
- (1) The amount of emission rights allocated free of charge in the current commitment period and estimated volume of emission as of June 30, 2022 are as follows:

<i>(In ten thousand metric tons)</i>	June 30, 2022
Emission rights allocated free of charge	1,123
Estimated volume of emission	1,523

- (2) Changes in the emission rights for the six-month period ended June 30, 2022 are as follows:

<i>(In millions of Korean won)</i>	2022
Balance as of January 1	46,073
Acquisition	1,872
Balance as of June 30	47,945

- (3) Changes in the emission liabilities for the six-month period ended June 30, 2022 are as follows:

<i>(In millions of Korean won)</i>	2022
Balance as of January 1	45,049
Charged to profit or loss	23,351
Submission	-
Balance as of June 30	68,400

13. Commitments and Contingencies

- (A) Guarantees

(1) Debt guarantees provided by the Company for overseas subsidiaries as of June 30, 2022 are as follows:

(In millions of Korean won and thousands of US dollars)

Debtor	Creditor	Period	Actual indebtedness	Guaranteed amount
SETK	BNP and others	Jun 13, 2023	297,602	1,043,370
SETK-P	BNP and others	Dec 16, 2022	43,181	168,077
SEDAM	Citibank and others	Jun 13, 2023	166,909	442,172
SEIL	Citibank	Dec 16, 2022	12,706	20,169
Other	Others	-	-	8,943,048
Total			520,398	10,616,836
			USD 402,504	USD 8,211,645

(2) The ceiling amount of guarantees provided by the Company for the execution of contracts by overseas subsidiaries is ₩442,727 million as of June 30, 2022.

(3) The Company has not been provided any collateral or guarantees from its related parties as of June 30, 2022.

(B) Litigation

As of June 30, 2022, the Company is involved in various claims, disputes, and investigations conducted by regulatory bodies that arose during the normal course of business with numerous entities. Although the outflow of resources and timing of these matters are uncertain, the Company believes the outcome will not have a material impact on the financial position of the Company.

(C) Joint liabilities related to the divestiture

The Company, Samsung Display Co., Ltd. and others are jointly and severally liable to fulfill the debts of Samsung Display Co., Ltd. and others which relate to the periods prior to Samsung Display Co., Ltd.'s separation from the Company.

14. Contract Liabilities

The Company has recognized the following contract liabilities related to revenue from contracts with customers:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Contract liabilities ¹	1,120,362	1,104,756

¹ Contract liabilities include advances received, accrued expenses, other current liabilities and others.

15. Share Capital

As of June 30, 2022, the Company's total number of authorized shares is 25,000,000,000 shares (₩ 100 per share). The Company has issued 5,969,782,550 shares of ordinary shares and 822,886,700 shares of preference shares as of June 30, 2022, excluding retired shares. As of June 30, 2022, the number of shares outstanding is the same as the number of shares issued above, and no changes were made to the number of shares outstanding during the six-month period ended June 30, 2022 and the year ended December 31, 2021. Due to the retirement of shares, the total par value of the shares issued is ₩ 679,267 million (ordinary shares of ₩ 596,978 million and preference shares of ₩ 82,289 million), which does not agree with paid-in capital of ₩ 897,514 million.

16. Retained Earnings

(A) Retained earnings as of June 30, 2022 and December 31, 2021 consist of the following:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Legal reserves	450,789	450,789
Discretionary reserves, etc.	199,261,667	188,323,546
Total	199,712,456	188,774,335

(B) Details of interim dividends are as follows (Record date: March 31 and June 30, 2022 and 2021)

<i>(In millions of Korean won and number of shares)</i>		2022	2021
1 st Quarter	Number of shares eligible for dividends	Ordinary shares 5,969,782,550	5,969,782,550
		Preference shares 822,886,700	822,886,700
	Dividend rate (based on par value)	361%	361%
	Dividend amount	Ordinary shares 2,155,092	2,155,092
	Preference shares 297,062	297,062	
	Total	2,452,154	2,452,154
2 nd Quarter	Number of shares eligible for dividends	Ordinary shares 5,969,782,550	5,969,782,550
		Preference shares 822,886,700	822,886,700
	Dividend rate (based on par value)	361%	361%
	Dividend amount	Ordinary shares 2,155,092	2,155,092
	Preference shares 297,062	297,062	
	Total	2,452,154	2,452,154

17. Other Components of Equity

Other components of equity as of June 30, 2022 and December 31, 2021 consist of the following:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Gain (loss) on valuation of financial assets at fair value through other comprehensive income	(25,054)	90,579
Remeasurement of net defined benefit liabilities (assets)	(2,834,770)	(2,732,997)
Others	1,760,408	1,760,408
Total	(1,099,416)	(882,010)

18. Expenses by Nature

Expenses by nature for the three and six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022		2021	
	3 Months	6 Months	3 Months	6 Months
Changes in finished goods and work in process	(2,057,842)	(4,147,431)	294,395	1,439,503
Raw materials used and merchandise purchased	28,305,000	55,942,597	19,973,009	41,402,129
Wages and salaries	3,820,721	8,060,769	3,400,978	6,964,494
Post-employment benefit	236,313	472,649	218,740	437,970
Depreciation	6,092,718	12,020,188	4,620,852	9,167,696
Amortization	637,341	1,265,858	634,671	1,188,525
Welfare	1,005,792	1,686,083	736,269	1,347,076
Utilities	835,588	1,668,263	668,375	1,354,725
Outsourcing	944,007	1,747,749	776,490	1,590,939
Advertising	435,815	788,863	341,013	590,036
Sales promotion expenses	254,948	660,344	145,395	446,045
Other	7,972,009	15,888,905	6,239,693	12,717,656
Total¹	48,482,410	96,054,837	38,049,880	78,646,794

¹ Equal to sum of cost of sales and selling and administrative expenses in the separate statements of profit or loss.

19. Selling and Administrative Expenses

Selling and administrative expenses for the three and six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022		2021	
	3 Months	6 Months	3 Months	6 Months
Selling and administrative expenses				
Wages and salaries	563,646	1,292,305	476,881	1,125,054
Post-employment benefit	40,861	82,316	37,880	78,969
Commissions and service charges	681,356	1,342,168	551,677	1,130,842
Depreciation	100,601	199,384	99,335	199,864
Amortization	90,610	179,405	55,715	109,752
Advertising	435,815	788,863	341,048	590,036
Sales promotion expenses	254,948	660,344	145,395	446,045
Transportation	298,887	560,372	246,575	443,375
Service charges	226,239	501,542	171,069	451,362
Other	606,931	1,046,927	445,683	838,265
Subtotal	3,299,894	6,653,626	2,571,258	5,413,564
Research and development expenses				
Total expenses	5,218,248	10,252,031	4,545,134	9,263,757
Capitalized expenses	-	-	(69,100)	(170,677)
Subtotal	5,218,248	10,252,031	4,476,034	9,093,080
Total	8,518,142	16,905,657	7,047,292	14,506,644

20. Other Non-Operating Income and Expenses

Details of other non-operating income and expenses for the three and six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022		2021	
	3 Months	6 Months	3 Months	6 Months
Other non-operating income				
Dividend income	10,331	137,839	4,083,583	5,218,583
Rental income	42,472	85,710	40,701	81,890
Gain on disposal of property, plant and equipment	40,594	88,692	81,385	214,269
Other	51,000	115,427	76,258	124,432
Total	144,397	427,668	4,281,927	5,639,174

<i>(In millions of Korean won)</i>	2022		2021	
	3 Months	6 Months	3 Months	6 Months
Other non-operating expenses				
Loss on disposal of property, plant and equipment	3,185	4,119	5,301	8,505
Donations	76,946	129,403	81,760	109,356
Other	19,045	20,263	461,956	480,136
Total	99,176	153,785	549,017	597,997

21. Financial Income and Expenses

Details of financial income and expenses for the three and six-month periods ended June 30, 2022 and 2021 are as follows:

<i>(In millions of Korean won)</i>	2022		2021	
	3 Months	6 Months	3 Months	6 Months
Financial income				
Interest income:	85,462	168,920	51,926	134,215
- Interest income from financial assets measured at amortized cost	85,462	168,920	51,926	134,215
Foreign exchange differences	2,392,638	3,789,545	705,988	1,544,463
Gain from derivatives	11,043	270,573	-	-
Total	2,489,143	4,229,038	757,914	1,678,678

<i>(In millions of Korean won)</i>	2022		2021	
	3 Months	6 Months	3 Months	6 Months
Financial expenses				
Interest expenses:	65,175	119,096	34,253	66,367
- Interest expense from financial liabilities measured at amortized cost	12,109	23,926	13,452	22,490
- Other financial liabilities	53,066	95,170	20,801	43,877
Foreign exchange differences	2,367,962	3,756,409	617,028	1,442,065
Loss from derivatives	-	-	52,430	52,430
Total	2,433,137	3,875,505	703,711	1,560,862

The Company recognizes foreign exchange gains and losses arising from foreign currency transactions and translation as financial income and expenses.

22. Income Tax Expense

Income tax expense is recognized based on management's best estimate of the weighted average annual income tax rate expected for the full financial year. The average annual tax rate expected as of June 30, 2022 to be effective for the year ended December 31, 2022 is 20.5%.

23. Earnings per Share

(A) Basic earnings per share

Basic earnings per share for the three and six-month periods ended June 30, 2022 and 2021 are calculated as follows:

(1) Ordinary shares

<i>(In millions of Korean won and thousands of number of shares)</i>	2022		2021	
	3 Month	6 Month	3 Month	6 Month
Profit for the period	8,191,308	15,843,251	9,129,190	13,676,794
Profit for the period available for ordinary shares	7,198,986	13,923,947	8,023,249	12,019,941
Weighted-average number of ordinary shares outstanding	5,969,783	5,969,783	5,969,783	5,969,783
Basic earnings per ordinary share (in Korean won)	1,206	2,332	1,344	2,013

(2) Preference shares

<i>(In millions of Korean won and thousands of number of shares)</i>	2022		2021	
	3 Month	6 Month	3 Month	6 Month
Profit for the period	8,191,308	15,843,251	9,129,190	13,676,794
Profit for the period available for preference shares	992,322	1,919,304	1,105,941	1,656,853
Weighted-average number of preference shares outstanding	822,887	822,887	822,887	822,887
Basic earnings per preference share (in Korean won)	1,206	2,332	1,344	2,013

(B) Diluted earnings per share

The Company does not have dilutive potential ordinary shares and as a result, basic earnings per share and diluted earnings per share are the same for the three and six-month periods ended June 30, 2022 and 2021.

24. Statements of Cash Flows

(A) The Company used the indirect method to present cash flows from operating activities. Adjustments and changes in assets and liabilities arising from operating activities for the six-month periods ended June 30, 2022 and 2021 are as follows:

- Adjustments

<i>(In millions of Korean won)</i>	2022	2021
Adjustments:		
Income tax expense	4,094,874	3,646,429
Financial income	(1,111,466)	(408,773)
Financial expenses	1,031,223	374,645
Post-employment benefits	472,649	437,970
Depreciation	12,020,188	9,167,696
Amortization	1,265,858	1,188,525
Bad debt expenses	6,180	11,153
Dividends income	(137,839)	(5,218,583)
Gain on disposal of property, plant and equipment	(88,692)	(214,269)
Loss on disposal of property, plant and equipment	4,119	8,505
Loss on valuation of inventories	662,791	152,313
Others	18,390	(17,786)
Total	18,238,275	9,127,825

- Changes in assets and liabilities arising from operating activities

<i>(In millions of Korean won)</i>	2022	2021
Changes in assets and liabilities :		
Decrease (increase) in trade receivables	1,214,372	(2,830,839)
Decrease in other receivables	286,145	376,551
Increase in prepaid expenses	(182,769)	(127,710)
Decrease (increase) in inventories	(5,988,520)	913,260
Increase in trade payables	462,580	2,158,893
Increase (decrease) in other payables	(1,720,329)	65,940
Decrease in advances received	(45,620)	(32,953)
Decrease in withholdings	(228,396)	(51,235)
Increase (decrease) in accrued expenses	(971,137)	(545,434)
Increase in provisions	423,398	247,124
Payment of post-employment benefits	(179,735)	(112,224)
Other	(776,812)	357,913
Total	(7,706,823)	419,286

(B) For the six-month periods ended June 30, 2022 and 2021, cash outflows from repayment of the principal (financial activities) were ₩ 72,124 million and ₩ 55,324 million, respectively, while cash outflows due to interest expenses (operating activities) in relation to the lease liabilities amount to ₩ 4,571 million and ₩ 2,204 million, respectively.

25. Financial Risk Management

The Company's financial risk management focuses on minimizing market risk, credit risk, and liquidity risk arising from operating activities. To mitigate these risks, the Company implements and operates a financial risk policy and program that closely monitors and manages such risks. In addition, the Company uses derivatives to hedge certain risk exposure.

The finance team mainly carries out the Company's financial risk management. After implementing the global financial risk management policies, the finance team periodically measures, evaluates, and hedges financial risk.

The Company also manages foreign exchange risk by monitoring foreign exchange rate fluctuations at local finance centers across major regions (United States, United Kingdom, Singapore, China, Brazil, and Russia) and acting as an agent of foreign exchange transactions. In addition, the Company manages liquidity risk by utilizing a globally integrated finance structure.

The Company's financial assets that are under financial risk management are comprised of cash and cash equivalents, short-term financial instruments, trade receivables and others. The Company's financial liabilities under financial risk management are comprised of trade payables, borrowings, and others.

(A) Market risk

(1) Foreign exchange risk

The Company is exposed to foreign exchange risk arising from its global operations performed in currencies other than its functional currency. The major currencies that are exposed to foreign exchange risk are the US dollar, Euro, and Indian Rupee.

The Company focuses on minimizing the impact of foreign exchange fluctuation by maintaining the equal amount of assets and liabilities denominated in each foreign currency, irrespective of foreign exchange fluctuation considerations. To prevent exchange position, the Company's foreign exchange management policy requires normal business transactions, including import and export, as well as financing transactions such as depositing and borrowing, to be in local currency or for the cash-in currency to be matched up with the cash-out currency. Moreover, the Company periodically evaluates and monitors the foreign exchange risk to efficiently mitigate such risk, and the speculative foreign exchange transactions are strictly prohibited.

(2) Interest rate risk

Risk of changes in interest rates for floating interest rate financial instruments is defined as the risk that the fair value of components of the statements of financial position, and future cash flows of interest income (expenses) of a financial instrument, will fluctuate because of changes in market interest rates. The Company's position with regard to interest rate risk exposure is mainly driven by its floating interest rate debt obligations and interest-bearing deposits. The Company implemented policies and operates to minimize uncertainty arising from changes in interest rates and finance expenses.

(3) Price risk

The Company's investment portfolio consists of direct and indirect investments in equity instruments classified as financial assets at fair value through other comprehensive income, which is in line with the Company's strategy.

As of June 30, 2022 and 2021, price fluctuation of marketable equity securities (listed stocks) by 1% would result in changes in other comprehensive income (before income tax) of ₩ 13,857 million and ₩ 14,447 million, respectively.

(B) Credit risk

Credit risk arises during the normal course of transactions and investing activities where clients or other parties fail to discharge an obligation. The Company monitors and sets the client's and counterparty's credit limit on a periodic basis based on the client's and counterparty's financial conditions, default history and other important factors. Adequate insurance coverage is maintained for trade receivables related to trading partners situated in higher risk countries.

Credit risk can arise from transactions with financial institutions which include financial instrument transactions such as cash and cash equivalents, deposits, and derivative instruments. To minimize such risk, the Company transacts only with banks which have a strong international credit rating (S&P A and above), and all new transactions with financial institutions with no prior transaction history are approved, managed and monitored by the Company's finance team. The Company generally enters into a financial agreement with no restrictions, such as debt ratio covenants, provision of collateral and/or repayment of loans/ borrowings. The Company requires separate approvals for contracts with restrictions.

As of the reporting date, the Company estimates that its maximum exposure to credit risk is the carrying amount of its financial assets, net of impairment losses.

(C) Liquidity risk

Due to large investments made by the Company, maintaining adequate levels of liquidity risk is critical. The Company strives to achieve this goal by periodically forecasting its capital balance, estimating required cash levels, and managing income and expenses.

The Company manages its liquidity risk by periodically forecasting projected cash flows. If abnormal signs are identified, the Company works with the local finance center and provides liquidity support by utilizing a globally integrated finance structure, such as Cash Pooling. In addition, the Company maintains a liquidity management process which provides additional financial support from the local finance center and the Company. The Cash Pooling program allows the sharing of surplus funds among entities and contributes to minimizing liquidity risk and strengthening the Company's competitive position by reducing capital operation expenses and financial expenses.

For the need of large scale of liquidity, the Company secures credit limit for the overseas subsidiaries through payment guarantees.

(D) Capital risk management

The purpose of capital management is to maintain a sound capital structure. The Company monitors capital on the basis of credit ratings and debt ratio. Debt ratio is calculated by dividing total liabilities by total equity in the financial statements.

The Company has maintained an AA- and Aa3 credit rating from S&P and Moody's, respectively.

The debt ratio as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022	December 31, 2021
Total liabilities	55,056,850	57,918,452
Total equity	203,914,447	193,193,732
Debt ratio	27.0%	30.0%

(E) Fair value estimation

(1) Carrying amounts and fair value of financial instruments by category as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022		December 31, 2021	
	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets				
Cash and cash equivalents	3,079,118	(*)	3,918,872	(*)
Short-term financial instruments	13,104,200	(*)	15,000,576	(*)
Trade receivables	32,463,228	(*)	33,088,247	(*)
Financial assets at fair value through other comprehensive income	1,503,038	1,503,038	1,662,532	1,662,532
Financial assets at fair value through profit or loss	1,876	1,876	2,135	2,135
Other	5,488,428	(*)	5,076,418	(*)
Total financial assets	55,639,888		58,748,780	
Financial liabilities				
Trade payables	12,177,539	(*)	11,557,441	(*)
Short-term borrowings	8,507,002	(*)	9,204,268	(*)
Other payables	11,594,599	(*)	12,948,960	(*)
Current portion of long-term liabilities	127,811	6,888	139,328	6,276
- Current portion of long-term borrowing	121,457	(*)	133,518	(*)
- Current portion of debentures	6,354	6,888	5,810	6,276
Debentures	31,771	37,459	29,048	35,863
Long-term borrowings	401,816	(*)	431,915	(*)
Long-term other payables	2,174,836	(*)	2,335,218	(*)
Other	3,421,604	(*)	3,056,156	(*)
Total financial liabilities	38,436,978		39,702,334	

(*) Assets and liabilities whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

(*) Lease liabilities, classified under the current portion of long-term liabilities and long-term borrowings, are excluded from the fair value disclosures in accordance with *Korean IFRS 1107*.

- (2) Fair value hierarchy classifications of the financial instruments that are measured at fair value or its fair value disclosed as of June 30, 2022 and December 31, 2021 are as follows:

<i>(In millions of Korean won)</i>	June 30, 2022			Total balance
	Level 1	Level 2	Level 3	
1) Assets				
Financial assets at fair value through other comprehensive income	1,385,723	-	117,315	1,503,038
Financial assets at fair value through profit or loss	-	-	1,876	1,876
2) Liabilities				
Current portion of debentures	-	6,888	-	6,888
Debentures	-	37,459	-	37,459

<i>(In millions of Korean won)</i>	December 31, 2021			Total balance
	Level 1	Level 2	Level 3	
1) Assets				
Financial assets at fair value through other comprehensive income	1,544,320	-	118,212	1,662,532
Financial assets at fair value through profit or loss	-	-	2,135	2,135
2) Liabilities				
Current portion of debentures	-	6,276	-	6,276
Debentures	-	35,863	-	35,863

The levels of the fair value hierarchy and its application to financial assets and liabilities are described below.

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly
- Level 3: Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs)

The fair value of financial instruments traded in active markets is based on quoted market prices at the statement of financial position date. A market is regarded as active if quoted prices are readily and regularly available from an exchange, dealer, broker, industry group, pricing service, or regulatory agency, and those prices represent actual and regularly occurring market transactions on an arm's length basis. The quoted market price used for financial assets held by the Company is the current bid price. These instruments are included in Level 1. The instruments included in Level 1 are listed equity investments, most of which are classified as financial assets at fair value through other comprehensive income.

The fair value of financial instruments that are not traded in an active market (for example, over-the-counter derivatives) is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where it is available and rely as little as possible on entity-specific estimates. If all significant inputs required to fair value an instrument are observable, the instrument is included in Level 2.

If one or more of the significant inputs are not based on observable market data, the instrument is included in Level 3.

The Company performs the fair value measurements required for financial reporting purposes, including Level 3 fair values and discusses valuation processes and results at least once every quarter in line with the Company's quarterly reporting dates. The Company's policy is to recognize transfers between levels at the end of the reporting period, if corresponding events or changes in circumstances have occurred.

Specific valuation techniques used to value financial instruments include:

- Quoted market prices or dealer quotes for similar instruments
- The fair value of forward foreign exchange contracts is determined using forward exchange rates at the statement of financial position date, with the resulting value discounted back to present value

Other techniques, such as discounted cash flow analysis, are used to determine fair value for the remaining financial instruments. For trade and other receivables that are classified as current assets, the book value approximates a reasonable estimate of fair value.

(3) Valuation technique and the inputs

The Company utilizes a present value technique to discount future cash flows using a proper interest rate for corporate bonds, government and public bonds, and bank debentures that are classified as Level 2 in the fair value hierarchy.

The following table presents the valuation technique and the inputs used for major financial instruments classified as Level 3 as of June 30, 2022.

(In millions of Korean won, and percentage)

Classification	Fair value	Valuation technique	Level 3 inputs	Input range (Weighted average)
Financial assets at fair value through other comprehensive income				
Samsung Venture Investment	28,458	Discounted cash flow	Permanent growth rate	-1.0%~1.0%(0.0%)
			Weighted average cost of capital	15.2%~17.2%(16.2%)
MiCo Ceramics Co., Ltd.	24,801	Discounted cash flow	Permanent growth rate	-1.0%~1.0%(0.0%)
			Weighted average cost of capital	10.7%~12.7%(11.7%)

(4) Changes in Level 3 instruments:

(In millions of Korean won)

	2022	2021
Financial assets		
Balance as of January 1	120,347	130,242
Disposals	(150)	(90)
Amount recognized in other comprehensive income	12,822	301
Other	(13,828)	(13)
Balance as of June 30	119,191	130,440

(5) Sensitivity analysis for recurring fair value measurements categorized within Level 3

Sensitivity analysis of financial instruments is performed to measure favorable and unfavorable changes in the fair value of financial instruments which are affected by the unobservable parameters, using a statistical technique. When the fair value is affected by more than two input parameters, the amounts represent the most favorable or unfavorable.

The results of the sensitivity analysis for effect on other comprehensive income or loss (before-tax amount for other comprehensive income or loss) from changes in inputs for major financial instruments which are categorized within Level 3 and subject to sensitivity analysis are as follows:

<i>(In millions of Korean won)</i>	Favorable changes		Unfavorable changes	
	Profit or loss	Equity	Profit or loss	Equity
Financial assets at fair value through other comprehensive income ¹	-	2,930	-	(2,176)

¹ For equity securities, changes in fair value are calculated with the correlation between the discount rate and growth rate (-1% ~1%), which are significant unobservable inputs.

26. Segment Information

The chief operating decision-maker has been identified as the Management Committee. The Company determines operating segments based on the units reported to the Management Committee. The Management Committee reviews the operating profits of each operating segment in order to assess performance and to make strategic decisions regarding the allocation of resources to the segment.

Sales revenue consists mostly of product sales. The operating segments are product-based and are identified based on the internal organization and revenue streams. As of the reporting date, the operating segments are comprised of DX, DS, and others.

Total assets and liabilities of each operating segment are excluded from the disclosure as these have not been provided regularly to the Management Committee.

(1) For the three-month period ended June 30, 2022

<i>(In millions of Korean won)</i>	DX	DS	Total¹
Sales	30,994,646	28,327,697	58,641,288
Depreciation	135,790	5,914,663	6,092,718
Amortization	391,409	191,232	637,341
Operating profit	545,002	9,611,354	10,158,878

¹ Other operating segments are not separately disclosed.

(2) For the six-month period ended June 30, 2022

<i>(In millions of Korean won)</i>	DX	DS	Total¹
Sales	62,111,009	54,703,997	115,365,546
Depreciation	271,910	11,664,052	12,020,188
Amortization	773,610	385,034	1,265,858
Operating profit	1,740,202	17,564,175	19,310,709

¹ Other operating segments are not separately disclosed.

(3) For the three-month period ended June 30, 2021

<i>(In millions of Korean won)</i>	DX	DS	Total¹
Sales	23,556,329	22,790,654	45,768,634
Depreciation	133,198	4,447,066	4,620,852
Amortization	344,859	260,713	634,671
Operating profit	1,698,006	6,017,451	7,718,754

¹ Other operating segments are not separately disclosed.

(4) For the six-month period ended June 30, 2021

<i>(In millions of Korean won)</i>	DX	DS	Total¹
Sales	50,197,392	41,812,570	90,811,024
Depreciation	267,394	8,818,093	9,167,696
Amortization	623,235	507,556	1,188,525
Operating profit	3,792,637	8,363,172	12,164,230

¹ Other operating segments are not separately disclosed.

27. Related Party Transactions

(A) Subsidiaries

List of subsidiaries as of June 30, 2022 are as follows:

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	Samsung Electronics America, Inc. (SEA)	Sale of electronic devices	100.0
	Samsung International, Inc. (SII)	Manufacture of TV and monitors	100.0
	Samsung Mexicana S.A. de C.V (SAMEX)	Manufacture of electronic devices	100.0
	Samsung Electronics Home Appliances America, LLC (SEHA)	Manufacture of home appliances	100.0
	Samsung Research America, Inc (SRA)	R&D	100.0
	Samsung Next LLC (SNX)	Management of overseas subsidiaries	100.0
	Samsung Next Fund LLC (SNXF)	Technology business, venture capital investments	100.0
	NeuroLogica Corp.	Manufacture and sale of medical equipment	100.0
	Samsung HVAC America, LLC	Sale of air conditioning products	100.0
	Joyent, Inc.	Cloud services	100.0
	Dacor Holdings, Inc.	Management of overseas subsidiaries	100.0
	Dacor, Inc.	Manufacture and sale of home appliances	100.0
	Dacor Canada Co.	Sale of home appliances	100.0
	SmartThings, Inc.	Sale of smart home electronics	100.0
	TeleWorld Solutions, Inc. (TWS)	Installation of network devices	100.0
	Samsung Semiconductor, Inc. (SSI)	Sale of semiconductor and display panels	100.0
	Samsung Austin Semiconductor LLC. (SAS)	Manufacture of semiconductors	100.0
	Samsung Oak Holdings, Inc. (SHI)	Management of overseas subsidiaries	100.0
	SEMES America, Inc.	Semiconductor equipment	100.0
	Samsung Electronics Canada, Inc. (SECA)	Sale of electronic devices	100.0
	AdGear Technologies Inc.	Digital advertising platforms	100.0
	Samsung Eletronica da Amazonia Ltda. (SEDA)	Manufacture and sale of electronic devices	100.0
America	Samsung Electronics Mexico S.A. de C.V. (SEM)	Sale of electronic devices	100.0
	Samsung Electronics Digital Appliance Mexico, S.A. de C.V. (SEDAM)	Manufacture of home appliances	100.0
	Samsung Electronics Latinoamerica (Zona Libre), S. A. (SELA)	Sale of electronic devices	100.0
	Samsung Electronics Latinoamerica Miami, Inc. (SEMI)	Sale of electronic devices	100.0
	Samsung Electronica Colombia S.A. (SAMCOL)	Sale of electronic devices	100.0
	Samsung Electronics Argentina S.A. (SEASA)	Marketing and services	100.0
	Samsung Electronics Chile Limitada (SECH)	Sale of electronic devices	100.0
	Samsung Electronics Peru S.A.C. (SEPR)	Sale of electronic devices	100.0
	Samsung Electronics Venezuela, C.A. (SEVEN)	Marketing and services	100.0
	Samsung Electronics Panama. S.A. (SEPA)	Consulting	100.0
	Harman International Industries, Inc.	Management of overseas subsidiaries	100.0
	Harman Becker Automotive Systems, Inc.	Manufacture and sale of audio products, R&D	100.0
	Harman Connected Services, Inc.	Connected service provider	100.0
	Harman Connected Services Engineering Corp.	Connected service provider	100.0
	Harman da Amazonia Industria Eletronica e Participacoes Ltda.	Manufacture and sale of audio products	100.0
	Harman de Mexico, S. de R.L. de C.V.	Manufacture of audio products	100.0
	Harman do Brasil Industria Eletronica e Participacoes Ltda.	Sale of audio products, R&D	100.0
	Harman Financial Group LLC	Management company	100.0
	Harman International Industries Canada Ltd.	Sale of audio products	100.0
	Harman International Mexico, S. de R.L. de C.V.	Sale of audio products	100.0
	Harman KG Holding, LLC	Management of overseas subsidiaries	100.0
	Harman Professional, Inc.	Sale of audio products, R&D	100
	Beijing Integrated Circuit Industry International Fund, L.P	Venture capital investments	61.4
	China Materialia New Materials 2016 Limited Partnership	Venture capital investments	99

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	Samsung Electronics (UK) Ltd. (SEUK)	Sale of electronic devices	100
	Samsung Electronics Ltd. (SEL)	Management of overseas subsidiaries	100
	Samsung Semiconductor Europe Limited (SSEL)	Sale of semiconductor and display panels	100
	Samsung Electronics GmbH (SEG)	Sale of electronic devices	100
	Samsung Electronics Holding GmbH (SEHG)	Management of overseas subsidiaries	100
	Samsung Semiconductor Europe GmbH (SSEG)	Sale of semiconductor and display panels	100
	Samsung Electronics France S.A.S (SEF)	Sale of electronic devices	100
	Samsung Electronics Italia S.P.A. (SEI)	Sale of electronic devices	100
	Samsung Electronics Iberia, S.A. (SESA)	Sale of electronic devices	100
	Samsung Electronics Portuguesa, Unipessoal, Lda. (SEP)	Sale of electronic devices	100
	Samsung Electronics Hungarian Private Co. Ltd. (SEH)	Manufacture and sale of electronic devices	100
	Samsung Electronics Europe Logistics B.V. (SELS)	Logistics	100
	Samsung Electronics Benelux B.V. (SEBN)	Sale of electronic devices	100
	Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	Management of overseas subsidiaries	100
	Samsung Electronics Nordic Aktiebolag (SENA)	Sale of electronic devices	100
	Samsung Electronics Slovakia s.r.o (SESK)	Manufacture of TV and monitors	100
	Samsung Display Slovakia, s.r.o. (SDSK)	Toll processing of display panels	100
	Samsung Electronics Polska, SP.Zo.o (SEPOL)	Sale of electronic devices	100
	Samsung Electronics Poland Manufacturing SP.Zo.o (SEPM)	Manufacture of home appliances	100
Europe & CIS	Samsung Electronics Romania LLC (SEROM)	Sale of electronic devices	100
	Samsung Electronics Austria GmbH (SEAG)	Sale of electronic devices	100
	Samsung Electronics Switzerland GmbH (SESG)	Sale of electronic devices	100
	Samsung Electronics Czech and Slovak s.r.o. (SECZ)	Sale of electronic devices	100
	SAMSUNG ELECTRONICS BALTICS SIA (SEB)	Sale of electronic devices	100
	Samsung Electronics Greece S.M.S.A (SEGR)	Sale of electronic devices	100
	Samsung Electronics Air Conditioner Europe B.V. (SEACE)	Sale of air conditioning products	100
	Samsung Nanoradio Design Center (SNDC)	R&D	100
	Samsung Denmark Research Center ApS (SDRC)	R&D	100
	Samsung Cambridge Solution Centre Limited (SCSC)	R&D	100
	Zhilabs, S.L.	Development and sale of network solutions	100
	FOODIENT LTD.	R&D	100
	Samsung Electronics Rus Company LLC (SERC)	Sale of electronic devices	100
	Samsung Electronics Rus Kaluga LLC (SERK)	Manufacture of TV	100
	Samsung Electronics Ukraine Company LLC (SEUC)	Sale of electronic devices	100
	Samsung R&D Institute Ukraine (SRUKR)	R&D	100
	Samsung Electronics Central Eurasia LLP (SECE)	Sale of electronic devices	100
	Samsung Electronics Overseas B.V. (SEO)	Sale of electronic devices	100
	Samsung R&D Institute Rus LLC (SRR)	R&D	100
	Samsung Electronics Caucasus Co. Ltd (SECC)	Marketing	100
	Samsung Electronics Uzbekistan Ltd. (SEUZ)	Marketing	100

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	AKG Acoustics GmbH	Manufacture and sale of audio products	100
	Apostera GmbH	Connected Service Provider	100
	Apostera UA, LLC	Connected Service Provider	100
	Harman Audio Iberia Espana Sociedad Limitada	Sale of audio products	100
	Harman Automotive UK Limited	Manufacture of audio products	100
	Harman Becker Automotive Systems GmbH	Manufacture and sale of audio products, R&D	100
	Harman Becker Automotive Systems Italy S.R.L.	Sale of audio products	100
	Harman Becker Automotive Systems Manufacturing Kft	Manufacture of audio products, R&D	100
	Harman Belgium SA	Sale of audio products	100
	Harman Connected Services AB.	Connected service provider	100
	Harman Finland Oy	Connected service provider	100
	Harman Connected Services GmbH	Connected service provider	100
	Harman Connected Services Poland Sp.zoo	Connected service provider	100
	Harman Connected Services UK Ltd.	Connected service provider	100
	Harman Consumer Nederland B.V.	Sale of audio products	100
	Harman Deutschland GmbH	Sale of audio products	100
Europe & CIS	Harman Finance International GP S.a.r.l	Management of overseas subsidiaries	100
	Harman France SNC	Sale of audio products	100
	Harman Holding GmbH & Co. KG	Management company	100
	Harman Hungary Financing Ltd.	Financing company	100
	Harman Inc. & Co. KG	Management of overseas subsidiaries	100
	Harman International Estonia OU	R&D	100
	Harman International Industries Limited	Sale of audio products, R&D	100
	Harman International Romania SRL	R&D	100
	Harman Finance International, SCA	Financing company	100
	Harman International s.r.o	Manufacture of audio products	100
	Harman Management GmbH	Management of overseas subsidiaries	100
	Harman Professional Kft	Manufacture of audio products, R&D	100
	Harman Professional Denmark ApS	Sale of audio products, R&D	100
	Red Bend Software Ltd.	Software design	100
	Red Bend Software SAS	Software design	100
	Studer Professional Audio GmbH	Sale of audio products, R&D	100
	Harman Connected Services OOO	Connected service provider	100
	Harman RUS CIS LLC	Sale of audio products	100
	Samsung Gulf Electronics Co., Ltd. (SGE)	Sale of electronic devices	100
	Samsung Electronics Turkey (SETK)	Sale of electronic devices	100
	Samsung Electronics Industry and Commerce Ltd. (SETK-P)	Manufacture of electronic devices	100
	Samsung Electronics Levant Co.,Ltd. (SELV)	Sale of electronic devices	100
	Samsung Electronics Maghreb Arab (SEMAG)	Sale of electronic devices	100
Middle East & Africa	Samsung Electronics Egypt S.A.E (SEEG)	Manufacture and sale of electronic devices	100
	Samsung Electronics Israel Ltd. (SEIL)	Marketing	100
	Samsung Electronics Tunisia S.A.R.L (SETN)	Marketing	100
	Samsung Electronics Pakistan(Private) Ltd. (SEPAK)	Marketing	100
	Samsung Electronics Saudi Arabia Ltd. (SESAR)	Sale of electronic devices	100
	Samsung Semiconductor Israel R&D Center, Ltd. (SIRC)	R&D	100
	Corephotonics Ltd.	R&D	100

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
	Samsung Electronics South Africa(Pty) Ltd. (SSA)	Sale of electronic devices	100
	Samsung Electronics South Africa Production (pty) Ltd. (SSAP)	Manufacture of TV and monitors	100
	Samsung Electronics West Africa Ltd. (SEWA)	Marketing	100
	Samsung Electronics East Africa Ltd. (SEEA)	Marketing	100
	Global Symphony Technology Group Private Ltd.	Management of overseas subsidiaries	100
	Harman Connected Services Morocco	Connected service provider	100
	Harman Industries Holdings Mauritius Ltd.	Management of overseas subsidiaries	100
	Red Bend Ltd.	Manufacture of audio products	100
	Samsung Asia Pte. Ltd. (SAPL)	Management of overseas subsidiaries	100
	Samsung Electronics Singapore Pte. Ltd. (SESP)	Sale of electronic devices	100
	Samsung Malaysia Electronics (SME) Sdn. Bhd. (SME)	Sale of electronic devices	100
	Samsung Electronics Display (M) Sdn. Bhd. (SDMA)	Manufacture of electronic devices	100
	Samsung Electronics (M) Sdn. Bhd. (SEMA)	Manufacture of home appliances	100
	Samsung Vina Electronics Co., Ltd. (SAVINA)	Sale of electronic devices	100
	Samsung Electronics Vietnam Co., Ltd. (SEV)	Manufacture of electronic devices	100
	Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	Manufacture of communication equipment	100
	Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	Manufacture and sale of electronic devices	100
	Samsung Display Vietnam Co., Ltd. (SDV)	Manufacture of display panels	100
	DOWOINSYS VINA COMPANY LIMITED	Manufacture of display components	100
	PT Samsung Electronics Indonesia (SEIN)	Manufacture and sale of electronic devices	100
	PT Samsung Telecommunications Indonesia (STIN)	Sale of electronic devices and services	100
	Thai Samsung Electronics Co., Ltd. (TSE)	Manufacture and sale of electronic devices	91.8
	Laos Samsung Electronics Sole Co., Ltd (LSE)	Marketing	100
Asia (Excluding China)	Samsung Electronics Philippines Corporation (SEPCO)	Sale of electronic devices	100
	Samsung Electronics Australia Pty. Ltd. (SEAU)	Sale of electronic devices	100
	Samsung Electronics New Zealand Limited (SENZ)	Sale of electronic devices	100
	Samsung India Electronics Private Ltd. (SIEL)	Manufacture and sale of electronic devices	100
	Red Brick Lane Marketing Solutions Pvt. Ltd.	Marketing	100
	Samsung Display Noida Private Limited (SDN)	Manufacture of display panels	100
	Samsung R&D Institute India-Bangalore Private Limited (SRI-Bangalore)	R&D	100
	Samsung R&D Institute BanglaDesh Limited (SRBD)	R&D	100
	Samsung Nepal Services Pvt, Ltd (SNSL)	Service	100
	Samsung Japan Corporation (SJC)	Sale of semiconductor and display panels	100
	Samsung R&D Institute Japan Co. Ltd. (SRJ)	R&D	100
	Samsung Electronics Japan Co., Ltd. (SEJ)	Sale of electronic devices	100
	Harman Connected Services Corp. India Pvt. Ltd.	Connected service provider	100
	Harman International (India) Private Limited	Sale of audio products, R&D	100
	Harman International Industries PTY Ltd.	Management of overseas subsidiaries	100
	Harman International Japan Co., Ltd.	Sale of audio products, R&D	100
	Harman Singapore Pte. Ltd.	Sale of audio products	100

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
China	Samsung (CHINA) Investment Co., Ltd. (SCIC)	Sale of electronic devices	100
	Samsung Electronics Hong Kong Co., Ltd. (SEHK)	Sale of electronic devices	100
	Samsung Electronics Taiwan Co., Ltd. (SET)	Sale of electronic devices	100
	Tianjin Samsung Electronics Co., Ltd. (TSEC)	Manufacture of TV and monitors	91.2
	Suzhou Samsung Electronics Co., Ltd. (SSEC)	Manufacture of home appliances	88.3
	Samsung Suzhou Electronics Export Co., Ltd. (SSEC-E)	Manufacture of home appliances	100
	Samsung Electronics Suzhou Computer Co., Ltd. (SESC)	Manufacture of electronic devices, R&D	100
	Tianjin Samsung Telecom Technology Co., Ltd. (TSTC)	Manufacture of communication equipment	90
	Beijing Samsung Telecom R&D Center (SRC-Beijing)	R&D	100
	Samsung Electronics China R&D Center (SRC-Nanjing)	R&D	100
	Samsung Mobile R&D Center China-Guangzhou (SRC-Guangzhou)	R&D	100
	Samsung R&D Institute China-Shenzhen (SRC-Shenzhen)	R&D	100
	Shanghai Samsung Semiconductor Co., Ltd. (SSS)	Sale of semiconductor and display panels	100
	Samsung (China) Semiconductor Co., Ltd. (SCS)	Manufacture of semiconductors	100
	Samsung SemiConductor Xian Co., Ltd. (SSCX)	Sale of semiconductor and display panels	100
	Samsung Electronics Suzhou Semiconductor Co., Ltd. (SESS)	Toll processing of semiconductors	100
	Tianjin Samsung LED Co., Ltd. (TSLED)	Manufacture of LED	100
	Samsung Semiconductor (China) R&D Co., Ltd. (SSCR)	R&D	100
	Samsung Display Dongguan Co., Ltd. (SDD)	Manufacture of display panels	100
	Samsung Display Tianjin Co., Ltd. (SDT)	Manufacture of display panels	95
	SEMES (XIAN) Co., Ltd.	Semiconductor/FPD equipment services	100
	Samsung Semiconductor Investment L.P.I	Technology business, venture capital investments	99
	Harman (China) Technologies Co., Ltd.	Manufacture of audio products	100
	Harman (Suzhou) Audio and Infotainment Systems Co., Ltd.	Sale of audio products	100
	Harman Automotive Electronic Systems (Suzhou) Co., Ltd.	Manufacture of audio products, R&D	100
	Harman Commercial (Shanghai) Co., Ltd.	Sale of audio products	100
	Harman Connected Services Solutions (Chengdu) Co., Ltd.	Connected service provider	100
	Harman Holding Limited	Sale of audio products	100
	Harman International (China) Holdings Co., Ltd.	Sale of audio products, R&D	100
	Harman Technology (Shenzhen) Co., Ltd.	Sale of audio products, R&D	100

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Area	Subsidiaries	Industry	Percentage of ownership (%) ¹
Domestic	Samsung Display Co., Ltd.	Manufacture and sale of display panels	84.8
	SU Materials	Manufacture of display components	50
	STECO Co., Ltd.	Manufacture of semiconductor components	70
	SEMES Co., Ltd.	Manufacture and sale of semiconductor/FPD	91.5
	Samsung Electronics Service Co., Ltd.	Repair services for electronic devices	99.3
	Samsung Electronics Service Customer Satisfaction Co., Ltd.	Call center for repair services for electronic devices	100
	Samsung Electronics Sales Co., Ltd.	Sale of electronic devices	100
	Samsung Electronics Logitech Co., Ltd.	General logistics agency	100
	Samsung Medison Co., Ltd.	Manufacture and sale of medical equipment	68.5
	Mirero System Co., Ltd.	Development and supply of semiconductor process defect and quality control software	99.9
	Dowooinsys Co., Ltd.	Manufacture of display components	69
	Gf-System Co., Ltd.	Manufacture of display components	100
	Harman International Korea	Software development and supply, etc.	100
	Samsung Venture Capital Union #21	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #22	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #26	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #28	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #29	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #32	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #33	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #37	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #40	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #42	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #43	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #45	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #48	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #52	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #55	Technology business, Venture capital investments	99
	Samsung Venture Capital Union #56	Technology business, Venture capital investments	99
	Growth type private equity trust specialized in semiconductors	Investment on semiconductor industry	66.7
	System LSI mutual benefit private equity trust	Investment on semiconductor industry	62.5

¹ Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

(B) Sale and purchase transactions

Sale and purchase transactions with related parties for the six-month periods ended June 30, 2022 and 2021 are as follows:

(In millions of Korean won)	Name of company ¹	2022			
		Sales and other	Disposal of non- current assets	Purchases and other	Purchase of non- current assets
Subsidiaries	Samsung Display Co., Ltd.	116,235	-	374,350	-
	Samsung Electronics America, Inc. (SEA)	18,774,290	-	99,204	-
	Samsung Asia Pte. Ltd. (SAPL)	25	-	15,071	-
	Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	4,503,346	-	15,027,178	59
	Samsung (China) Semiconductor Co., Ltd. (SCS)	113,310	5,135	4,869,112	1,608
	Harman and its subsidiaries ²	-	-	43,916	-
	Samsung Semiconductor, Inc. (SSI)	22,720,846	-	244,899	-
	Samsung (CHINA) Investment Co., Ltd. (SCIC)	871,795	-	4,008	-
	Samsung Electronics Vietnam Co., Ltd. (SEV)	3,073,882	6	8,133,380	-
	Samsung Austin Semiconductor LLC (SAS)	28	-	1,625,294	1,430
	Samsung India Electronics Private Ltd. (SIEL)	3,062,570	-	2,585,609	-
	Shanghai Samsung Semiconductor Co., Ltd. (SSS)	10,266,046	-	47	-
	Samsung Display Vietnam Co., Ltd. (SDV)	836,339	-	-	-
	Samsung Eletronica da Amazonia Ltda. (SEDA)	633,873	-	10,335	-
	Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	354,262	2,775	2,858,565	355
	Samsung Electronics (UK) Ltd. (SEUK)	845,212	-	48,687	-
	Thai Samsung Electronics Co., Ltd. (TSE)	916,293	-	1,536,606	-
	Samsung International, Inc. (SII)	185,607	216	4,529,493	-
	Samsung Electronics Europe Logistics B.V. (SELS)	2,651,208	-	1,719	-
	Samsung Electronics Benelux B.V. (SEBN)	416,273	-	1,214	-
	Samsung Electronics Hungarian Private Co., Ltd. (SEH)	233,426	141	1,513	-
	Samsung Display Dongguan Co., Ltd. (SDD)	154,618	-	-	-
	Samsung Electronics GmbH (SEG)	1,991,533	-	3,567	-
	SEMES Co., Ltd.	4,709	-	1,123,457	-
	Other	30,989,327	3,644	7,046,249	2,011
		Total	103,715,053	11,917	50,183,473
Associates and joint ventures	Samsung SDS Co., Ltd	128,256	-	792,366	172,753
	Samsung Electro-Mechanics Co., Ltd	47,427	-	486,789	-
	Samsung SDI Co., Ltd	36,570	-	207,099	7,252
	Cheil Worldwide Inc.	29,923	-	441,732	-
	Other	248,805	-	400,521	2,404
	Total	490,981	-	2,328,507	182,409
Other related parties	Samsung C&T Corporation	25,175	-	35,202	2,595,379
	Other	158,280	-	303,463	37,825
	Total	183,455	-	338,665	2,633,204
Other ³	Samsung Engineering Co., Ltd	875	-	12,995	1,030,441
	S-I Corporation	2,117	-	208,373	11,040
	Other	69,002	-	76,038	66,110
	Total	71,994	-	297,406	1,107,591

¹ Transactions with separate entities that are related parties of the Company.

² Transactions with the intermediate parent company, including Harman International Industries, Inc. and its subsidiaries.

³ Although these entities are not related parties of the Company in accordance with *Korean IFRS 1024*, they belong to the same large enterprise group according to the Monopoly Regulation and Fair Trade Act.

		2021			
(In millions of Korean won)	Name of company ¹	Sales and other	Disposal of non- current assets	Purchases and other	Purchase of non- current assets
Subsidiaries	Samsung Display Co., Ltd.	93,887	-	373,297	-
	Samsung Electronics America, Inc. (SEA)	14,165,928	-	78,995	-
	Samsung (China) Semiconductor Co., Ltd. (SCS)	73,849	169,934	3,144,758	4,591
	Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	2,718,976	686	9,115,155	68
	Harman and its subsidiaries ²	-	-	24,655	-
	Samsung (CHINA) Investment Co., Ltd. (SCIC)	769,981	-	4,135	-
	Samsung Electronics Vietnam Co., Ltd. (SEV)	1,602,809	202	6,771,463	264
	Samsung Asia Pte. Ltd. (SAPL)	-	-	8,397	-
	Samsung Semiconductor, Inc. (SSI)	12,649,323	-	206,912	-
	Samsung Austin Semiconductor LLC. (SAS)	29	1,183	1,953,255	6,681
	Shanghai Samsung Semiconductor Co., Ltd. (SSS)	12,609,499	-	576	-
	Samsung India Electronics Private Ltd. (SIEL)	1,890,549	2,609	1,469,262	-
	Samsung Display Vietnam Co., Ltd. (SDV)	516,398	-	-	-
	Samsung Eletronica da Amazonia Ltda. (SEDA)	1,456,382	13	7,168	-
	Thai Samsung Electronics Co., Ltd. (TSE)	704,564	-	1,227,677	-
	Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	375,047	2,152	3,005,107	-
	Samsung Electronics (UK) Ltd. (SEUK)	947,872	-	47,883	-
	Samsung Electronics Benelux B.V. (SEBN)	205,640	-	1,343	-
	Samsung Electronics Hungarian Private Co. Ltd. (SEH)	313,877	-	462	-
	Samsung Electronics Taiwan Co., Ltd. (SET)	2,396,643	-	267	-
	SEMES Co., Ltd.	2,405	-	1,330,629	-
	Samsung Electronics Europe Logistics B.V. (SELS)	1,941,745	-	4,271	-
	Samsung International, Inc. (SII)	208,510	-	2,951,583	-
	Samsung Display Dongguan Co., Ltd. (SDD)	142,877	-	-	-
	Other	27,469,531	9,368	6,140,350	3,784
Total		83,256,321	186,147	37,867,600	15,388
Associates and joint ventures	Samsung SDS Co., Ltd	84,168	-	735,239	235,352
	Samsung Electro-Mechanics Co., Ltd	32,884	-	493,114	-
	Samsung SDI Co., Ltd	31,561	269	160,971	15,243
	Cheil Worldwide Inc.	25,542	-	331,651	17
	Other	242,906	68	221,078	3,725
Total		417,061	337	1,942,053	254,337
Other related parties	Samsung C&T Corporation	43,131	-	24,796	1,775,628
	Other	175,971	-	290,587	47,119
Total		219,102	-	315,383	1,822,747
Other ³	Samsung Engineering Co., Ltd	122	-	14,546	625,556
	S-1 Corporation	2,224	-	197,335	16,678
	Other	50,485	2,371	53,907	2,698
Total		52,831	2,371	265,788	644,932

¹ Transactions with separate entities that are related parties of the Company.

² Transactions with the intermediate parent company, including Harman International Industries, Inc. and its subsidiaries.

³ Although these entities are not related parties of the Company in accordance with *Korean IFRS 1024*, they belong to the same large enterprise group according to the Monopoly Regulation and Fair Trade Act.

(C) Balances of receivables and payables

Balances of receivables and payables arising from sales and purchases of goods and services as of June 30, 2022 and December 31, 2021 are as follows:

(In millions of Korean won)	Name of company ¹	June 30, 2022	
		Receivables and other ²	Payables and other ³
Subsidiaries	Samsung Display Co., Ltd.	20,121	112,707
	Samsung Electronics America, Inc. (SEA)	3,147,001	200,711
	Samsung Asia Pte. Ltd. (SAPL)	2,032	2,016
	Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	547,954	4,399,071
	Samsung (China) Semiconductor Co., Ltd. (SCS)	63,000	766,069
	Harman and its subsidiaries ⁴	-	15,196
	Samsung Semiconductor, Inc. (SSI)	8,850,736	167,490
	Samsung (CHINA) Investment Co., Ltd. (SCIC)	76,074	837
	Samsung Electronics Vietnam Co., Ltd. (SEV)	460,308	2,401,533
	Samsung Austin Semiconductor LLC (SAS)	2,835	292,108
	Samsung India Electronics Private Ltd. (SIEL)	1,283,087	349,345
	Shanghai Samsung Semiconductor Co., Ltd. (SSS)	3,584,668	1,156
	Samsung Display Vietnam Co., Ltd. (SDV)	132,810	-
	Samsung Eletronica da Amazonia Ltda. (SEDA)	245,269	3,327
	Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	91,167	377,888
	Samsung Electronics (UK) Ltd. (SEUK)	278,437	39,685
	Thai Samsung Electronics Co., Ltd. (TSE)	110,383	184,301
	Samsung International, Inc. (SII)	104,175	347,724
	Samsung Electronics Europe Logistics B.V. (SELS)	486,513	835
	Samsung Electronics Benelux B.V. (SEBN)	78,651	3,356
	Samsung Electronics Hungarian Private Co., Ltd. (SEH)	15,397	268
	Samsung Display Dongguan Co., Ltd. (SDD)	16,333	-
	Samsung Electronics GmbH (SEG)	280,294	5,238
SEMES Co., Ltd.	36,368	780,513	
Other	8,955,312	1,661,297	
	Total	28,868,925	12,112,671
Associates and joint ventures	Samsung SDS Co., Ltd	72,647	428,119
	Samsung Electro-Mechanics Co., Ltd	179	78,787
	Samsung SDI Co., Ltd	117,453	40,575
	Cheil Worldwide Inc.	13	428,780
	Other	146,145	91,286
	Total	336,437	1,067,547
Other related parties	Samsung C&T Corporation	200,805	1,415,845
	Other	15,870	150,868
	Total	216,675	1,566,713
Other ⁵	Samsung Engineering Co., Ltd	747	278,939
	S-1 Corporation	675	31,608
	Other	2,771	71,448
	Total	4,193	381,995

¹ Transactions with separate entities that are related parties of the Company.

² The Company has not recognized bad debt allowance in relation to the receivables due from subsidiaries as of June 30, 2022.

³ Payables and others include lease liabilities.

⁴ Transactions with the intermediate parent company, including Harman International Industries, Inc. and its subsidiaries.

⁵ Although these entities are not related parties of the Company in accordance with Korean IFRS 1024, they belong to the same large enterprise group according to the Monopoly Regulation and Fair Trade Act.

(In millions of
Korean won)

		December 31, 2021	
Name of Company¹		Receivables and other²	Payables and other³
	Samsung Display Co., Ltd.	23,791	119,401
	Samsung Electronics America, Inc. (SEA)	4,708,011	143,310
	Samsung (China) Semiconductor Co., Ltd. (SCS)	59,110	726,945
	Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	734,283	4,049,400
	Harman and its subsidiaries ⁴	-	7,541
	Samsung Electronics Vietnam Co., Ltd. (SEV)	414,781	2,301,949
	Samsung (CHINA) Investment Co., Ltd. (SCIC)	138,307	77,540
	Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	316	-
	Samsung Semiconductor, Inc. (SSI)	7,320,890	123,555
	Samsung Asia Pte. Ltd. (SAPL)	1,736	2,164
	Samsung Austin Semiconductor LLC (SAS)	4,645	277,682
	Samsung India Electronics Private Ltd. (SIEL)	1,099,927	463,652
	Shanghai Samsung Semiconductor Co., Ltd. (SSS)	4,337,520	217
Subsidiaries	Samsung Display Vietnam Co., Ltd. (SDV)	161,441	-
	Samsung Eletronica da Amazonia Ltda. (SEDA)	258,490	1,040
	Samsung Electronics (UK) Ltd. (SEUK)	201,717	19,595
	Samsung International, Inc. (SII)	32,564	259,847
	Thai Samsung Electronics Co., Ltd. (TSE)	132,508	334,943
	Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	167,225	430,960
	Samsung Electronics Taiwan Co., Ltd. (SET)	372,716	32,145
	Samsung Electronics Hungarian Private Co., Ltd. (SEH)	58,694	99
	Samsung Electronics Europe Logistics B.V. (SELS)	629,882	1,715
	Samsung Electronics Benelux B.V. (SEBN)	45,171	3,351
	Samsung Electronics GmbH (SEG)	223,603	2,272
	Samsung Display Dongguan Co., Ltd. (SDD)	18,025	-
	Other	9,220,424	2,284,643
	Total	30,365,777	11,663,966
	Samsung SDS Co., Ltd	64,364	574,443
	Samsung Electro-Mechanics Co., Ltd	2,415	108,103
Associates and joint ventures	Samsung SDI Co., Ltd	113,845	54,076
	Cheil Worldwide Inc.	59	421,901
	Other	192,550	166,311
	Total	373,233	1,324,834
Other related parties	Samsung C&T Corporation	195,355	1,640,615
	Other	15,839	125,470
	Total	211,194	1,766,085
Other ⁵	Samsung Engineering Co., Ltd	289	1,099,881
	S-1 Corporation	2,058	29,620
	Other	4,286	56,476
	Total	6,633	1,185,977

¹ Transactions with separate entities that are related parties of the Company.

² The Company has not recognized any bad debt allowance in relation to the receivables due from subsidiaries as of December 31, 2021.

³ Payables and others include lease liabilities.

⁴ Transactions with the intermediate parent company, including Harman International Industries, Inc. and its subsidiaries.

⁵ Although these entities are not related parties of the Company in accordance with Korean IFRS 1024, they belong to the same large enterprise group according to the Monopoly Regulation and Fair Trade Act.

- (D) For the six-month periods ended June 30, 2022 and 2021, the Company invested ₩ 58,364 million and ₩ 41,640 million, respectively, in subsidiaries, and received ₩ 74,448 million and ₩ 310,538 million in return of investments, respectively. In addition, the Company invested ₩ 882,125 million in associates and joint ventures for the six-month period ended June 30, 2022, but there was no additional investment in associates and joint ventures for the six-month period ended June 30, 2021 or return of those investments for the six-month periods ended June 30, 2022 and 2021, respectively.
- (E) For the six-month periods ended June 30, 2022 and 2021, the Company declared dividend of ₩ 835,814 million and ₩ 2,683,584 million, respectively, to related parties. In addition, for the six-month periods ended June 30, 2022 and 2021, the Company declared dividends of ₩ 64,116 million and ₩ 203,623 million, respectively, to the entities that are not related parties of the Company in accordance with *Korean IFRS 1024*, but belong to the same conglomerate according to the Monopoly Regulation and Fair Trade Act. As of June 30, 2022 and December 31, 2021, no dividends declared remains unpaid.
- (F) For the six-month periods ended June 30, 2022 and 2021, assets leased from related parties amounted to ₩ 20 million and ₩ 63,887 million, respectively, and lease payments made to the related parties amounted to ₩ 23,515 million and ₩ 27,641 million, respectively.
- (G) As of June 30, 2022, the Company provides guarantees in relation to borrowings of the related parties (refer to Note 13).
- (H) Key management compensation

The compensation paid or payable to key management (executive directors) for their services for the six-month periods ended June 30, 2022 and 2021 consists of:

<i>(In millions of Korean won)</i>	2022	2021
Short-term employee benefits	4,694	4,550
Post-employment benefits	289	443
Other long-term employee benefits	3,873	4,046

6. Dividends

We continue to work to enhance shareholder value alongside our efforts to strengthen competitiveness of our products and businesses. We utilized 50% of the free cash flow as the shareholder return pool for 2018 to 2020 as part of our shareholder return policy for 2018 to 2020 and paid annual, regular dividends of KRW 9.6 trillion. A special cash dividend of KRW 10.7 trillion was paid out at the same time as the 2020 end-year, regular dividend. The shareholder return policy for 2021 to 2023 was announced in January 2021. For this term, we kept the shareholder return pool at 50% of the free cash flow, but increased the annual, regular dividend to KRW 9.8 trillion. Any remaining portion of the 50% of the free cash flow will be paid out to shareholders.

Dividends paid in the three most recent fiscal years are as follows:

[Key dividend indices]

Classification		1H22	2021	2020
Par value per share (KRW)		100	100	100
Consolidated net profit ¹⁾ (KRW mil)		22,083,609	39,243,791	26,090,846
Separate net profit (KRW mil)		15,843,251	30,970,954	15,615,018
EPS ²⁾ (KRW)		3,251	5,777	3,841
Total cash dividend (KRW mil)		4,904,308	9,809,438	20,338,075
Total stock dividend (KRW mil)		-	-	-
Dividend payout ratio (%)		22.2	25.0	78.0
Cash dividend yield (%)	Common	1.2	1.8	4.0
	Preferred	1.3	2.0	4.2
Stock dividend yield (%)	Common	-	-	-
	Preferred	-	-	-
Cash dividend per share (KRW)	Common	722	1,444	2,994
	Preferred	722	1,445	2,995
Stock dividend per share (share)	Common	-	-	-
	Preferred	-	-	-

Dividends were KRW 2,452,154 million or KRW 361 per share in the first two quarters of 2022 and the first three quarters of 2021, and KRW 2,404,605 million or KRW 354 per share in each of the first three quarters of 2020. For further information relating to total cash dividend, see retained earnings in 『3. Note to Consolidated Financial Statements』 in 『III. Financial Affairs』 .

1) Equity attributable to owners of the parent.

2) Basic earnings per common share on a consolidated basis. For further information relating to the calculation of basic EPS, see Earnings Per Share in 『3. Note to Consolidated Financial Statements』 in 『III. Financial Affairs』 .

History of dividend payouts is as follows:

Number of continuous dividend payments		Average dividend yield	
Quarterly/biannual dividends	End-year dividends	Past 3 years	Past 5 years
35	41	2.8%	2.7%

The number of continuous dividend payments includes the quarterly dividend for the quarter and the end-year dividend for the recent business year. Continuous payment of the end-year dividend started in 1981, biannual dividend in 1999, and quarterly dividend in 2017.

The average dividend yield is based on common shares. The average dividend yield of preferred shares for the past 3 years and past 5 years are 3.1% and 3.2% respectively.

The “past 3 years” refers to the period from 2019 to 2021, and the “past 5 years” refers to the period from 2017 to 2021. For the dividend yield of 1H22, please refer to the table of key dividends above (common shares at 1.2%, preferred shares at 1.3%).

7. Matters about financing through the issuance of securities

7-1 Financing through the issuance of securities

[Issuance of equity securities]

N/A

[Issuance of debt securities]

A. List of issued debt securities

(As of June 30, 2022)

(KRW mil, %)

Issuing company	Type of securities	Issuance method	Date of Issuance	Total nominal amount	Interest rate	Rating (rating institution)	Maturity date	Payment status	Management company
Samsung Electronics	Corporate bonds	Public offering	Oct 2, 1997	129,290	7.7	Aa3(Moody's), AA-(S&P)	Oct 1, 2027	Partial redemption	Goldman Sachs et al.
Harman International Industries, Inc	Corporate bonds	Public offering	May 11, 2015	517,160	4.2	Baa1 (Moody's), A- (S&P)	May 15, 2025	Unredeemed	J.P.Morgan et al.
Harman Finance International, SCA (*1)	Corporate bonds	Public offering	May 27, 2015	469,732	2.0	Baa1 (Moody's), A- (S&P)	May 27, 2022	Redeemed	HSBC et al.
Dowinsys Co., Ltd	Corporate bonds	Private placement	Feb 28, 2020	23,000	0.5	-	Feb 28, 2025	Unredeemed	-
Total	-	-	-	1,139,182	-	-	-	-	-

※ The exchange rate as of the reporting date has been applied.

(*1) The corporate bonds were redeemed on March 1st, 2022, prior to the original maturity date.

B. Commercial Paper Unredeemed Balance

Not Applicable

(Reporting Date: June 30, 2022)

(KRW mil)

Maturity		Under 10 days	Above 10 days / under 30 days	Above 30 days / under 90 days	Above 90 days / under 180 days	Above 180 days / under 1 year	Above 1 year / under 2 years	Above 2 years / under 3 years	Above 3 years	Total
Unredeemed balance	Public	-	-	-	-	-	-	-	-	-
	Private	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-

C. Short-term Bond Unredeemed Balance

Not Applicable

(Reporting Date: June 30, 2022)

(KRW mil)

Maturity		Under 10 days	Above 10 days / under 30 days	Above 30 days / under 90 days	Above 90 days / under 180 days	Above 180 days / under 1 year	Total	Issue limit	Balance limit
Unredeemed balance	Public	-	-	-	-	-	-	-	-
	Private	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-

D. Corporate Bond Unredeemed Balance

(Reporting Date: June 30, 2022)

(KRW mil)

Maturity		Under 1 year	Above 1 year / under 2 years	Above 2 years / under 3 years	Above 3 years / under 4 years	Above 4 years / under 5 years	Above 5 years / under 10 years	Above 10 years	Total
Unredeemed balance	Public	6,465	6,465	523,625	6,465	6,465	6,462	-	555,947
	Private	-	-	23,000	-	-	-	-	23,000
	Total	6,465	6,465	546,625	6,465	6,465	6,462	-	578,947

※ Based on consolidated financial statements.

※ The exchange rate as of the reporting date has been applied.

※ Unredeemed balance of corporate bonds of Dowinsys are intercompany balances eliminated in consolidated financial statements.

- Corporate Bond Unredeemed Balance (Samsung Electronics)

(Reporting Date: June 30, 2022)

(KRW mil)

Maturity		Under 1 year	Above 1 year / under 2 years	Above 2 years / under 3 years	Above 3 years / under 4 years	Above 4 years / under 5 years	Above 5 years / under 10 years	Above 10 years	Total
Unredeemed balance	Public	6,465	6,465	6,465	6,465	6,465	6,462	-	38,787
	Total	6,465	6,465	6,465	6,465	6,465	6,462	-	38,787

※ The exchange rate as of the reporting date has been applied.

- Corporate Bond Unredeemed Balance (Harman)

(Reporting Date: June 30, 2022)

(KRW mil)

Maturity		Under 1 year	Above 1 year / under 2 years	Above 2 years / under 3 years	Above 3 years / under 4 years	Above 4 years / under 5 years	Above 5 years / under 10 years	Above 10 years	Total
Unredeemed balance	Public	-	-	517,160	-	-	-	-	517,160
	Total	-	-	517,160	-	-	-	-	517,160

※ The exchange rate as of the reporting date has been applied.

- Corporate Bond Unredeemed Balance (Dowinsys)

(Reporting Date: June 30, 2022)

(KRW mil)

Maturity		Under 1 year	Above 1 year / under 2 years	Above 2 years / under 3 years	Above 3 years / under 4 years	Above 4 years / under 5 years	Above 5 years / under 10 years	Above 10 years	Total
Unredeemed balance	Private	-	-	23,000	-	-	-	-	23,000
	Total	-	-	23,000	-	-	-	-	23,000

※ Unredeemed balance of corporate bonds of Dowinsys are intercompany balances eliminated in consolidated financial statements.

E. Hybrid Bond Unredeemed Balance

Not Applicable

(Reporting Date: June 30, 2022)

(KRW mil)

Maturity		Under 1 year	Above 1 year / under 5 years	Above 5 years / under 10 years	Above 10 years / under 15 years	Above 15 years / under 20 years	Above 20 years / under 30 years	Above 30 years	Total
Unredeemed balance	Public	-	-	-	-	-	-	-	-
	Private	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-

F. Contingent Convertible Bond Unredeemed Balance

Not Applicable

(Reporting Date: June 30, 2022)

(KRW mil)

Maturity		Under 1 year	Above 1 year / under 2 years	Above 2 years / under 3 years	Above 3 years / under 4 years	Above 4 years / under 5 years	Above 5 years / under 10 years	Above 10 years / under 20 years	Above 20 years / under 30 years	Above 30 years	Total
Unredeemed balance	Public	-	-	-	-	-	-	-	-	-	-
	Private	-	-	-	-	-	-	-	-	-	-
	Total	-	-	-	-	-	-	-	-	-	-

G. Details and Compliance of the Bond Management Contract (Samsung Electronics)

(Reporting Date: June 30, 2022)

(KRW mil, %)

Name of security	Date of issuance	Maturity date	Issued amount	Settlement date of bond management contract	Debenture management company
US\$ 100,000,000 7.7% debenture	Oct 2, 1997	Oct 1, 2027	129,290	Oct 2, 1997	The Bank of New York Mellon Trust Company, N.A.

(Reporting Date: June 30, 2022)

Financial ratios	Contract details	Not applicable
	Implementation status	Not applicable
Constraint on collateral	Contract details	Less than 10% of net tangible assets
	Implementation status	Compliant (there is no collateral for the relevant assets)
Constraint on disposal of assets	Contract details	Certain requirements, such as transfer of obligations on the bond, must be satisfied to dispose all or most of an asset
	Implementation status	Compliant (disposed assets accounted for 0.1% of the total assets during 1H22)
Constraint on governance	Contract Details	Not applicable
	Implementation status	Not applicable
Submission of implementation report	Implementation status	Not applicable

- ※ The exchange rate as of the base date has been applied.
- ※ The date of the bond management contract was signed on the same day as the Fiscal Agency Agreement; accordingly, the Bank of New York Mellon Trust Company, N.A. is under the authority of the Fiscal Agent.
- ※ The net tangible assets subjected to the limitation of collaterals are production facilities and stocks owned by the Company.
- ※ The reporting date is the date when most recent financial statements were prepared, which are used to determine the status of implementation.
- ※ The constraint on governance is as of the reporting date.

7-2 Use of funds financed through the issuance of securities

Not applicable

8. Other financial information

A. Restatement of financial statements and other matters to note

- (1) Restatement of financial statements: Not Applicable
- (2) Acquisition, divestment, asset sales, and sale of business

The major acquisition, divestment and transfer of business during past three years are as follows.

[Sale of SSL, SSM]

On August 28, 2020, Samsung Display Co., Ltd., the Company's subsidiary, decided to sell its 100% ownership in Samsung Suzhou Module Co., Ltd. ("SSM") and 60% ownership in Samsung Suzhou LCD Co., Ltd. ("SSL") to TCL China Star Optoelectronics Technologies Co. Ltd. ("CSOT"). The sales were completed on April 1, 2021.

- (3) Information on the accounting treatment of the sales of assets related to asset backed securities and contingent liabilities

Accounting Treatment of the sale of assets related to asset backed securities:

- Not applicable

Litigation

The Company is involved in various claims, disputes, and investigations conducted by regulatory bodies, which arose during the normal course of business with numerous entities. Although the outflow of resources and timing of these matters are uncertain, as of the reporting date, the Company believes the outcome will not have a material impact on the financial position of the Company.

Debt guarantee

- Domestic: Not applicable

- Overseas:

(USD thousand)

Company	Relationship	Creditor	Guarantee	Transactions			Limit of guarantee
			Expiry date	Beginning of period	Increase/decrease	End of period	
SEA	Subsidiary	BOA etc.	Jun 13, 2023	-	-	-	1,278,000
SEM	Subsidiary	BBVA etc.	Jun 13, 2023	-	-	-	865,000
SAMCOL	Subsidiary	Citibank etc.	Jun 13, 2023	-	-	-	210,000
SEDA	Subsidiary	BRADESCO etc.	Dec 16, 2022	-	-	-	409,000
SECH	Subsidiary	Citibank etc.	Jun 13, 2023	-	-	-	62,000
SEPR	Subsidiary	BBVA etc.	Jun 13, 2023	-	-	-	150,000
SSA	Subsidiary	SCB etc.	Jun 13, 2023	-	-	-	318,000
SEMAG	Subsidiary	SocGen etc.	Dec 16, 2022	-	-	-	110,000
SETK	Subsidiary	BNP etc.	Jun 13, 2023	102,275	127,907	230,182	807,000
SETK-P	Subsidiary	BNP etc.	Dec 16, 2022	33,334	65	33,399	130,000
SECE	Subsidiary	Citibank etc.	Dec 16, 2022	-	-	-	72,811
SEEG	Subsidiary	HSBC	Jun 13, 2023	-	-	-	85,000
SEIN	Subsidiary	BNP etc.	Jun 13, 2023	-	-	-	70,000
SJC	Subsidiary	Mizuho Bank etc.	May 31, 2023	-	-	-	824,834
SEUC	Subsidiary	Credit Agricole etc.	Jun 13, 2023	-	-	-	150,000
SEDAM	Subsidiary	Citibank etc.	Jun 13, 2023	-	129,096	129,096	342,000
SECA	Subsidiary	BoA	Nov 08, 2022	-	-	-	70,000
SELA	Subsidiary	Citibank	Dec 16, 2022	-	-	-	60,000
SEEH	Subsidiary	HSBC etc.	Jun 13, 2023	-	-	-	833,400
SERK	Subsidiary	HSBC etc.	Jun 13, 2023	-	-	-	140,000
SELV	Subsidiary	Citibank	Dec 16, 2022	-	-	-	10,000
SEIL	Subsidiary	Citibank	Dec 16, 2022	10,947	-1,120	9,827	15,600
SAPL	Subsidiary	BOA etc.	Jun 13, 2023	-	-	-	404,000
SAVINA	Subsidiary	HSBC	Jun 13, 2023	-	-	-	51,000
SCIC	Subsidiary	HSBC etc.	Jun 13, 2023	-	-	-	300,000
SME	Subsidiary	SCB	Nov 08, 2022	-	-	-	110,000
SAMEX	Subsidiary	Citibank	Dec 16, 2022	-	-	-	5,000
SEASA	Subsidiary	Citibank	Dec 16, 2022	-	-	-	2,000
SSAP	Subsidiary	SCB	Nov 08, 2022	-	-	-	35,000
SEPM	Subsidiary	HSBC	Jun 13, 2023	-	-	-	35,000
SESAR	Subsidiary	HSBC	Jun 13, 2023	-	-	-	50,000
AdGear Technologies Inc.	Subsidiary	BOA	Nov 08, 2022	-	-	-	2,000
Harman International Industries, Inc.	Subsidiary	JP Morgan	Jun 13, 2023	-	-	-	100,000
Harman International Japan Co., Ltd.	Subsidiary	MUFG	Nov 08, 2022	-	-	-	25,000
Harman RUS CIS LLC	Subsidiary	SocGen	May 31, 2022	-	-	-	-
Harman Holding Limited	Subsidiary	HSBC	Jun 13, 2023	-	-	-	30,000
Harman do Brasil Indústria Eletronica e Participacoes Ltda.	Subsidiary	SocGen	Nov 08, 2022	-	-	-	15,000
Harman da Amazonia Indústria Eletronica e Participacoes Ltda.							
Harman International Industries Limited	Subsidiary	HSBC	Jun 13, 2023	-	-	-	35,000
Harman Finance International, SCA	Subsidiary	JP Morgan etc.	Mar 01, 2022	396,304	-396,304	-	-
SDN	Subsidiary	SIEL	Nov 22, 2024	571,121	-32,772	538,349	633,352
SAS	Subsidiary	Epcor	The date of debt expiration	-	-	-	340,000
Total				1,113,981	-173,128	940,853	9,184,997

※ Information above are prepared on a consolidated basis. Debt guarantees for Harman Finance International, SCA are provided by Harman International Industries, Inc., SDN by Samsung Display Co., Ltd., and SAS by SEA, respectively.

※ SEC requires Board approval for individual guarantees exceeding 2.5% of total equity. When the guarantee amount is between 0.1% and/or less than 2.5%, the approval decision is delegated to the Management Committee. Samsung Display Co., Ltd requires Board approval for individual guarantees over KRW 10,000 million.

※ SEC claims fees on the debt guarantees depending on the maturity date of each debt guarantee, general loan interest rate, etc. In 2021, the Company claimed approximately USD 266,000 in guarantee fees and, as of the reporting date, has collected the amount. In 2021, Samsung Display Co., Ltd. claimed approximately USD 2,529,000 in guarantee fees to SDN and, as of the reporting date, has collected the amount.

Refer to the notes to the consolidated financial statements for the information on contingent liabilities.

(4) Other matters requiring attention in relation to the use of the financial statements

A. Emphasis of matter and key audit matter in Independent auditor's report

Period	Emphasis of matter	Key audit matter
1H22	Not applicable	Not applicable
2021	Not applicable	(Consolidated financial statement) 1. Sales deduction related to the Sales promotion activities of products (Separate financial statement) 1. Sales deduction related to the Sales promotion activities of products
2020	Not applicable	(Consolidated financial statement) 1. Sales deduction related to the Sales promotion activities of products 2. Impairment of goodwill and intangible assets with indefinite useful lives (Separate financial statement) 1. Sales deduction related to the Sales promotion activities of products

B. Allowance for bad debt

The allowances for bad debt by account over the past 3 years are as follows:

(KRW mil, %)

Period	Account	Receivables amount	Allowance amount	Allowance
1H22	Trade receivables	44,363,098	336,866	0.8%
	Short-term loans	20,108	195	1.0%
	Other receivables	5,770,575	80,096	1.4%
	Advances	1,073,998	4,108	0.4%
	Trade receivables (long-term)	326,188	-	0.0%
	Other receivables (long-term)	565,704	289	0.1%
	Advances (long-term)	1,969,345	8,628	0.4%
	Long-term loans	236,770	1,182	0.5%
	Total	54,325,786	431,364	0.8%
2021	Trade receivables	41,024,295	310,880	0.8%
	Short-term loans	17,895	73	0.4%
	Other receivables	4,569,772	72,515	1.6%
	Advances	1,122,660	3,847	0.3%
	Trade receivables (long-term)	225,739	-	0.0%
	Other receivables (long-term)	1,002,404	290	0.0%
	Advances (long-term)	1,770,999	9,003	0.5%
	Long-term loans	199,577	917	0.5%
	Total	49,933,341	397,525	0.8%
2020	Trade receivables	31,283,789	318,731	1.0%
	Short-term loans	7,813	73	0.9%
	Other receivables	3,663,822	59,283	1.6%
	Advances	890,413	3,371	0.4%
	Trade receivables (long-term)	85,575	-	0.0%
	Other receivables (long-term)	401,582	204	0.1%
	Advances (long-term)	1,397,698	5,972	0.4%
	Long-term loans	113,944	1,309	1.1%
	Total	37,844,636	388,943	1.0%

※ Based on consolidated financial statements.

※ Receivables amount represents the value after deducting present value discount account.

Allowance for bad debt by year

(KRW mil)

	1H22	2021	2020
1. Allowance for bad debt (beginning balance)	397,525	388,943	411,310
2. Net bad debt expense (① - ② + ③)	-4,358	25,926	65,575
① Bad debt expense, etc (Write-off)	1,957	22,400	40,487
② Bad debt recovered	-	-	745
③ Others	-6,315	3,526	25,833
3. Bad debts expense	29,481	34,508	43,208
4. Allowance for bad debts (Ending balance)	431,364	397,525	388,943

※ Based on consolidated financial statements.

The guideline for bad debt allowances for trade receivables

(1) Calculation of bad debt allowance

- Bad debt allowance is calculated using an expected credit loss impairment model which is based on write-off experience rate and future expected bad debt amount.

(2) Calculation basis of write-off experience rate and future expected bad debt:

- Write-off experience rate for each aging group of receivables is calculated based on the actual rate of credit losses to three-year average receivables balance.
- Future expected bad debt is determined taking into consideration cases of debtor bankruptcy, compulsory execution, death, disappearance, credit information of debtor and forward-looking information.

[Bad debt allowance by circumstance]

Circumstance	Rate of allowance
Dispute or conflict	25%
Receivable through utilization of third party collection agency	50%
Receivable under litigation	75%
Customer filed or in the process of filing bankruptcy	100%

(3) Instruction: Write-off is recorded when trade receivables contain the following characteristics:

- Objective proof of bad debts, such as bankruptcy, compulsory execution, discontinuance of business, debtor's death or disappearance
- Legal action has failed or the right of collection has been extinguished.
- When the third party collection agency notifies that collection is not possible.
- When the collateral is sold or insurance is received.
- When collection expense exceeds receivables amount.

The outstanding period of trade receivables

[Reporting Date: June 30, 2022]

(KRW mil, %)

	Less than 6 months	6 months ~ 1 year	1 year ~ 3 years	More than 3 years	Total
Amount	44,499,658	16,288	91,667	81,673	44,689,286
Ratio	99.6%	0.0%	0.2%	0.2%	100.0%

※ Base on consolidated financial statements.

※ Receivables amount represents the value after deducting present value discount account.

C. Inventory

- The inventory status by Division over the last three years is as follows:

(KRW mil, %)

Division	Category	1H22	2021	2020	Note
DX	Finished goods	10,702,194	8,894,766	7,088,063	
	Work in process	928,302	799,218	592,903	
	Raw material	14,224,013	11,384,887	7,862,310	
	Material in transit	1,294,537	1,299,624	876,270	
	Total	27,149,046	22,378,495	16,419,546	
DS	Finished goods	5,392,571	2,490,097	1,719,095	
	Work in process	13,426,717	11,809,911	10,639,866	
	Raw material	2,640,929	2,118,424	1,674,081	
	Material in transit	47,773	36,685	46,587	
	Total	21,507,990	16,455,117	14,079,629	
SDC	Finished goods	582,271	294,777	134,963	
	Work in process	819,412	874,229	650,762	
	Raw material	1,023,047	810,325	603,779	
	Material in transit	45,135	48,253	33,271	
	Total	2,469,865	2,027,584	1,422,775	
Harman	Finished goods	683,686	533,008	502,117	
	Work in process	151,103	105,271	80,237	
	Raw material	986,618	736,109	337,386	
	Material in transit	506,718	321,128	224,961	
	Total	2,328,125	1,695,516	1,144,701	
Total	Finished goods	17,574,112	12,280,579	9,387,886	
	Work in process	15,179,057	13,473,618	11,818,090	
	Raw material	17,841,277	14,184,841	9,790,766	
	Material in transit	1,497,795	1,445,366	1,046,403	
	Total	52,092,241	41,384,404	32,043,145	
Inventory ratio (%) [Inventory ÷ Total Assets] × 100		11.6%	9.7%	8.5%	
Inventory turnover (x) [Yearly COGS ÷ {(Beginning of inventory + End of inventory)÷2}]		4.0	4.5	4.9	

※ Based on consolidated financial statements

Inventory counts

(1) Inspection date

- End of May and November (twice a year)
- For the difference in inventories between the inspection date and at the end of the year, the Company checks all the warehouse record during the period in order to confirm the existence of the inventories as of the date of the financial statements.

(2) Inspection method

- Internal warehouse: Closed & entire quantity inspection
- ※ Sample inspection for semi-conductor and DP work-in-progress inventories, SVC materials
- Outside warehouse
Perform check for the possession confirmation documents and sample tests at the third party warehouse and inventory-in-transit.
- External auditors join and observe the inspection and carry out sample tests to check the existence and completeness.
- ※ For the HQ, the most recent inventory inspection was conducted from May 29 to June 5, 2022, and the subsidiaries conducted the inventory inspection during the same period as HQ.

Inventory aging and valuation

Inventories are stated at the lower of cost or net realizable value. Inventory as of June 30, 2022 are as follows:

(KRW mil)

Category	Acquisition cost	Inventory valuation reserve	Balance	Note
Finished goods	18,694,756	-1,120,644	17,574,112	
Work in process	16,005,040	-825,983	15,179,057	
Raw material	18,865,194	-1,023,917	17,841,277	
Material in transit	1,497,795	-	1,497,795	
Total	55,062,785	-2,970,544	52,092,241	

- ※ Based on consolidated financial statements

D. Fair value estimation

Refer to 3. Financial Instruments by Category and 25. Financial Risk Management in 『Ⅲ. Financial Affairs』.

IV. Management Discussion and Analysis

Pursuant to the reporting guidelines set forth by the FSS of South Korea, the Management Discussion and Analysis section, reported in the full-year business report, is not included in quarterly and half-year reports.

V. Auditor's Report

1. Introduction

Deloitte Anjin conducted a review and audit on the consolidated/separate financial statements of financial position of the Company as of June 30, 2022, December 31, 2021, and December 31, 2020, and the related consolidated/separate statements of profit or loss, comprehensive income, changes in equity and cash flows for the periods then ended. Deloitte Anjin expressed unqualified opinion on the financial statements for the year ended December 31, 2021, and December 31, 2020, and the consolidated/separate financial statements for the period ended June 30, 2022, are presented fairly, in all material respects, in accordance with Korean IFRS 1034 Interim Financial Reporting.

All of the Company's subsidiaries received unqualified opinion for the periods ended December 31, 2021, and December 31, 2020.

Period end	Company Auditor	Audit Opinion	Emphasis of Matter	Key Audit Matter(s)
Jun 30, 2022	Deloitte Anjin	Not applicable	Not applicable	Not applicable
Dec 31, 2021	Deloitte Anjin	Unqualified	Not applicable	(Consolidated) 1. Sales deduction related to the sales promotion activities of products (Separate) 1. Sales deduction related to the sales promotion activities of products
Dec 31, 2020	Deloitte Anjin	Unqualified	Not applicable	(Consolidated) 1. Sales deduction related to the sales promotion activities of products 2. Impairment of goodwill and intangible assets with indefinite useful lives (Separate) 1. 1. Sales deduction related to the sales promotion activities of products

※ Audit opinion on both separate and consolidated financial statements.

[Audit Contract Description]

(KRW mil)

Fiscal Period	Auditor	Description	Contract		Actual	
			Audit fee	Total Hours	Fee Claimed	Hours spent
Half-year ended Jun 30, 2022	Deloitte Anjin	- Review of the interim separate/consolidated financial statements - Audit of separate/consolidated financial statements - Audit of Internal Control over Financial Reporting (ICFR)	8,424	78,000	3,027	28,032
Year ended Dec 31, 2021	Deloitte Anjin	- Review of the interim separate/consolidated financial statements - Audit of separate/consolidated financial statements - Audit of Internal Control over Financial Reporting (ICFR)	7,900	76,741	7,900	76,999
Year ended Dec 31, 2020	Deloitte Anjin	- Review of the interim separate/consolidated financial statements - Audit of separate/consolidated financial statements - Audit of Internal Control over Financial Reporting (ICFR)	8,400	85,721	8,400	86,128

< Review plan for the period ended June 30, 2022 >

Review Period		Planned Dates
2022 1Q	Pre-review	Mar 7, 2022 ~ Mar 25, 2022
	Review	Apr 5, 2022 ~ May 13, 2022
2022 2Q	Pre-review	Jun 6, 2022 ~ Jun 24, 2022
	Review	Jul 6, 2022 ~ Aug 12, 2022

※ Above schedule is for the review of separate and consolidated financial statements

[Non-Audit Service Contract Description]

(KRW mil)

Fiscal Period	Contract Date	Non-audit Service Description	Period for Service	Compensation	Note
Half-year ended Jun 30, 2022	Not Applicable	-	-	-	-
Year ended Dec 31, 2021	Jun 2017	E-discovery advisory services	Jan – Dec 2021	394	Deloitte Anjin
Year ended Dec 31, 2020	Jun 2017	E-discovery advisory services	Jan – Dec 2020	59	Deloitte Anjin

[Details of internal audit committee's discussion with Auditors]

No.	Date	Participants	Method	Details of discussion
1	Jan 25, 2022	Audit Committee: 3 members Company: Head of Audit Team Auditor: Signing partner and 1 other	Face-to-face meeting	<ul style="list-style-type: none"> - Key Audit Matters and others audit focus areas - Progress of audit of Internal Control over Financial Reporting - Other required communications at the completion stage of the audit
2	Apr 26, 2022	Audit Committee: 3 members Company: Head of Audit Team Auditor: Signing partner and 4 others	Face-to-face meeting	<ul style="list-style-type: none"> - Yearly plan for communication with those charged with governance - Audit plan for the year ending December 31, 2022 - Reporting on progress of quarterly review
3	Jul 26, 2022	Audit Committee: 3 members Company: Head of Audit Team Auditor: Signing partner and 4 others	Face-to-face meeting	<ul style="list-style-type: none"> - Annual audit plan and its progress - Plan for the Key Audit Matters selection - Progress of audit of Internal Control over Financial Reporting - Discussion of quarterly review focus areas and other required communications

2. Change of Independent Auditor

There are 233 subsidiaries as of June 30, 2022, and there was no new appointment or change of the external auditors during the half-year ended June 30, 2022.

There are 228 subsidiaries as of December 31, 2021. Samsung Electronics Singapore Pte. Ltd. (SESP) and Samsung Electronics Industry and Commerce Ltd (SETK-P) newly appointed Deloitte, and Gf-System Co., Ltd. newly appointed Anjin as the external auditor. And Samsung Electronics Benelux B.V. (SEBN) have changed the external auditor to E&Y from Deloitte, and Dowinsys Co., Ltd to Anjin from Samduk, respectively. Appointment of auditor was decided at the entities' own discretion.

Upon termination of the contract with previous auditor, Samil PwC, Deloitte Anjin has been designated as the Company's external auditor for three years ending December 31, 2022, in accordance with periodic designation regulation of Article 11 (1) and (2) of the "Act on External Audit of Stock Companies, Etc.", Article 17 of the "Enforcement Decree of the Act on External Audit of Stock Companies, Etc.", and Article 10 and Article 15 (1) of "Regulations on External Audit and Accounting".

There are 241 subsidiaries as at December 31, 2020. For the year ending December 31, 2020, 6 domestic subsidiaries, including Samsung Display Co., Ltd., changed external auditor from Samil PwC to Deloitte Anjin, 24 overseas subsidiaries, including Samsung Electronics America, Inc. (SEA), changed PwC to Deloitte, and 2 overseas subsidiaries, Samsung Electronica da Amazonia Ltda. (SEDA) and Samsung Gulf Electronics Co., Ltd. (SGE), changed KPMG to Deloitte. These changes in external auditors were to improve efficiency in audit of consolidated financial statements due to designation of the Company's external auditor.

Details of change in subsidiaries' external auditors are as follows:

Subsidiaries	Previous auditor	Current Auditor
Samsung Display Co., Ltd.	Samil PwC	Deloitte Anjin
Samsung Electronics Service Co., Ltd.	Samil PwC	Deloitte Anjin
Samsung Electronics Service CS Co., Ltd.	Samil PwC	Deloitte Anjin
Samsung Electronics Sales Co., Ltd.	Samil PwC	Deloitte Anjin
Samsung Electronics Logitech Co., Ltd.	Samil PwC	Deloitte Anjin
Mirero System Co., Ltd.	Samil PwC	Deloitte Anjin
Samsung Electronics America, Inc. (SEA)	PwC	Deloitte
Samsung Semiconductor, Inc. (SSI)	PwC	Deloitte
Samsung Mexicana S.A. de C.V (SAMEX)	PwC	Deloitte
Samsung International, Inc. (SII)	PwC	Deloitte
Samsung Austin Semiconductor LLC. (SAS)	PwC	Deloitte
Samsung Electronics Mexico S.A. De C.V. (SEM)	PwC	Deloitte
Samsung Electronics (UK) Ltd. (SEUK)	PwC	Deloitte
Samsung Electronics Holding GmbH (SEHG)	PwC	Deloitte
Samsung Semiconductor Europe GmbH (SSEG)	PwC	Deloitte
Samsung Electronics GmbH (SEG)	PwC	Deloitte
Samsung Electronics Benelux B.V. (SEBN)	PwC	Deloitte
Samsung Vina Electronics Co., Ltd. (SAVINA)	PwC	Deloitte
Samsung Asia Private Ltd. (SAPL)	PwC	Deloitte
Samsung Electronics Australia Pty. Ltd. (SEAU)	PwC	Deloitte
Thai Samsung Electronics Co., Ltd. (TSE)	PwC	Deloitte
Samsung Display Vietnam Co., Ltd. (SDV)	PwC	Deloitte
Samsung Electronics Vietnam Co., Ltd. (SEV)	PwC	Deloitte
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	PwC	Deloitte
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	PwC	Deloitte
Samsung (CHINA) Investment Co., Ltd. (SCIC)	PwC	Deloitte

Shanghai Samsung Semiconductor Co., Ltd. (SSS)	PwC	Deloitte
Samsung Electronics Saudi Arabia Ltd. (SESAR)	PwC	Deloitte
Samsung Electronics Turkey (SETK)	PwC	Deloitte
Samsung Electronics Rus Company LLC (SERC)	PwC	Deloitte
Samsung Eletronica da Amazonia Ltda. (SEDA)	KPMG	Deloitte
Samsung Gulf Electronics Co., Ltd. (SGE)	KPMG	Deloitte

The newly acquired subsidiary, TeleWorld Solutions, Inc.(TWS), appointed PwC as their external auditor. Appointment of auditor was decided at the entities' own discretion.

3. Regarding Internal Control

[Audit opinion of Internal Control over Financial Reporting (ICFR)]

Fiscal Period	Group Auditor	Opinion	Remarks
Half-year ended Jun 30, 2022	Deloitte Anjin	Not applicable	Not applicable
Year ended Dec 31, 2021	Deloitte Anjin	[Audit Opinion] The Company maintained, in all material respects, effective internal control over financial reporting As of December 31, 2021, based on <i>Conceptual Framework for Designing and Operating Internal Control over Financial Reporting</i> .	Not applicable
Year ended Dec 31, 2020	Deloitte Anjin	[Audit Opinion] The Company maintained, in all material respects, effective internal control over financial reporting As of December 31, 2020, based on <i>Conceptual Framework for Designing and Operating Internal Control over Financial Reporting</i> .	Not applicable

VI. Corporate Governance

1. Board of Directors

A. Overview

The Board of Directors consisted of 9 directors, 5 of whom are Executive Directors (Jong-hee Han, Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park and Jung-bae Lee) and 4 Independent Directors (Han-jo Kim, Sun-uk Kim, Jeong Kim and Jun-sung Kim). The Board has appointed Han-jo Kim as Chairman as he will be able to mediate the different opinions of Directors and is most qualified to manage Board activities. The roles of Board Chairman and CEO have been separated to enhance the Board's independence and transparency.

The Board has six committees: Management Committee, Audit Committee, Independent Director Recommendation Committee, Related Party Transactions Committee, Compensation Committee, and Sustainability Committee (formerly Governance Committee).

[As of June 30, 2022]

Classification	Composition	Members	Head	Role
Board of Directors	5 Executive Directors	Jong-hee Han, Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park, Jung-bae Lee	Han-jo Kim (Independent)	<ul style="list-style-type: none"> - Make resolutions on matters provided for by the relevant laws and regulations or the Articles of Incorporation, matters delegated by a general meeting of shareholders, as well as on important matters concerning basic policies and business execution. - Supervise management.
	4 Independent Directors	Han-jo Kim, Sun-uk Kim, Jeong Kim, Jun-sung Kim		
Management Committee	5 Executive Directors	Jong-hee Han, Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park, Jung-bae Lee	Jong-hee Han (Executive)	<ul style="list-style-type: none"> - Deliberate and decide on matters related to finance, general management, and on matters specifically delegated by the Board.
Audit Committee	3 Independent Directors	Han-jo Kim, Sun-uk Kim, Jeong Kim	Han-jo Kim (Independent)	<ul style="list-style-type: none"> - Review and audit matters concerning management of the Company, including the Company's financial situation.
Independent Director Recommendation Committee	1 Independent Director	Jeong Kim	Jeong Kim (Independent)	<ul style="list-style-type: none"> - Assess the independence, diversity, and ability of potential candidates for Independent Director positions. - Recommend candidates.
Related Party Transactions Committee	3 Independent Directors	Sun-uk Kim, Han-jo Kim, Jeong Kim	Sun-uk Kim (Independent)	<ul style="list-style-type: none"> - Voluntarily comply with fair transaction regulations to enhance corporate transparency.
Compensation Committee	2 Independent Directors	Han-jo Kim, Jun-sung Kim	-	<ul style="list-style-type: none"> - Ensure the objectivity and transparency of the decision-making process for Director compensation.
Sustainability Committee (formerly Governance Committee)	4 Independent Directors	Han-jo Kim, Sun-uk Kim, Jeong Kim, Jun-sung Kim	Han-jo Kim (Independent)	<ul style="list-style-type: none"> - Promote sustainability management in ESG areas and enhance shareholder value.

Jan 27, 2022: Independent Director Jeong Kim was appointed as the Head of Independent Director Recommendation Committee.

Mar 16, 2022: Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park, and Jung-bae Lee were newly appointed as Executive Directors; Wha-jin Han and Jun-sung Kim as Independent Directors; and Han-jo Kim was reappointed as Independent Director at the AGM.

Mar 16, 2022: Ki-nam Kim, Hyun-suk Kim, and Dong-jin Koh resigned from their position as Executive Director.

Mar 19, 2022: Terms of Jae-wan Bahk and Curie Ahn as Independent Director expired.

Apr 1, 2022: Executive Director Jong-hee Han was appointed as the Head of Management Committee.

Apr 20, 2022: Wha-jin Han resigned from her position as Independent Director.

Apr 26, 2022: Independent Director Han-jo Kim was appointed as the Head of Audit Committee.

Apr 28, 2022: Independent Director Han-jo Kim was appointed as the Head of Sustainability Committee.

May 17, 2022: Independent Director Byung-gook Park passed away.

Jul 28, 2022: Independent Director Sun-uk Kim was appointed as Independent Director Recommendation Committee member at the Board meeting.

Jul 28, 2022: Independent Director Jeong Kim was appointed as Compensation Committee member at the Board meeting.

Head of Compensation Committee will be appointed at the upcoming committee meeting.

The number of Independent Directors and changes in the number are shown below.

Number of Directors	Number of Independent Directors	Changes of Independent Directors		
		Appointed	Dismissed	Resigned
9	4	3	-	2

Mar 16, 2022: Wha-jin Han and Jun-sung Kim were newly appointed as Independent Directors and Han-jo Kim was reappointed as an Independent Director at the 2021 AGM.

Mar 19, 2022: Terms of Jae-wan Bahk and Curie Ahn as Independent Director expired.

Apr 20, 2022: Wha-jin Han resigned from her position as Independent Director.

May 17, 2022: Independent Director Byung-gook Park passed away.

B. Agendas considered and voting results

Date	Agenda	Results	Executive Directors (attendance)							
			Ki-nam Kim (100%)	Hyun-suk Kim (100%)	Dong-jin Koh (100%)	Jong-hee Han (100%)	Kye-hyun Kyung (100%)	Tae-moon Roh (100%)	Hark-kyu Park (100%)	Jung-bae Lee (100%)
Jan 27	① Approval of FY21 financial statements and full-year business report	Approved	For	For	For	For				
	② Appointment of SCC member ※ Reported items: 1) Report on FY21 internal accounting management system activities 2) Report on evaluation of FY21 internal accounting management system activities	Approved	For	For	For	For				
Feb 15	① Appointment of CEO	Approved	For	For	For	For				
	② Decision to convene the 53rd AGM ③ Decisions on the 53rd AGM agenda items ※ Reported Items: 1) FY21 annual audit report, 2) FY21 full-year business report, 3) Report on FY21 internal accounting management system activities ※ Agenda item 1: Approval of FY21 financial statements, including balance sheet, income statement, and the statement of appropriation of retained earnings, etc. ※ Agenda item 2: Appointment of Directors 2-1: Appointment of Independent Directors 2-1-1: Appointment of Han-jo Kim as Independent Director 2-1-2: Appointment of Wha-jin Han as Independent Director 2-1-3: Appointment of Jun-sung Kim as Independent Director 2-2: Appointment of Executive Directors 2-2-1: Appointment of Kye-hyun Kyung as Executive Director 2-2-2: Appointment of Tae-moon Roh as Executive Director 2-2-3: Appointment of Hark-kyu Park as Executive Director 2-2-4: Appointment of Jung-bae Lee as Executive Director 2-3: Appointment of Audit Committee Member 2-3-1: Appointment of Han-jo Kim as Audit Committee Member 2-3-2: Appointment of Jeong Kim as Audit Committee Member ※ Agenda item 3: Approval of remuneration limit for Directors	Approved	For	For	For	For	N/A (newly appointed)	N/A (newly appointed)	N/A (newly appointed)	N/A (newly appointed)

Date	Agenda	Results	Executive Directors (attendance)							
			Ki-nam Kim (100%)	Hyun-suk Kim (100%)	Dong-jin Koh (100%)	Jong-hee Han (100%)	Kye-hyun Kyung (100%)	Tae-moon Roh (100%)	Hark-kyu Park (100%)	Jung-bae Lee (100%)
	④ Revision of internal accounting management regulations	Approved	For	For	For	For				
	⑤ Approval of 2022 social contribution matching fund	Approved	For	For	For	For				
	⑥ Donation to Chung-nam Samsung Institute	Approved	-	For	For	For				
	⑦ Purchase of product liability insurance	Approved	For	For	For	For				
Mar 16	① Appointment of Chairman of the Board	Approved				For	For	For	For	For
	② Appointment of CEO	Approved				For	For	For	For	For
	③ Appointment of Board committee members	Approved				For	For	For	For	For
	④ Setting remuneration of Directors	Approved				For	For	For	For	For
	⑤ Participation in Samsung Biologics' rights offering	Approved				For	For	For	For	For
Apr 28	① Approval of 1Q22 interim business report and quarterly dividend	Approved	N/A (resigned)	N/A (resigned)	N/A (resigned)	For	For	For	For	For
	② Real estate lease agreement of company building of SEC in Seocho	Approved				For	For	For	For	For
	③ Purchase of employee insurance policy	Approved				For	For	For	For	For
	④ Charitable contributions	Approved				For	For	For	For	For
	⑤ Lease agreement with Samsung SDI	Approved				For	For	For	For	For
	⑥ Donation to incentive fund for DS Division's suppliers	Approved				For	For	For	For	For
	⑦ Establishment of plans on safety and health	Approved				For	For	For	For	For

Date	Agenda	Results	Independent Directors (attendance)							
			Jae-wan Bahk (67%)	Sun-uk Kim (100%)	Byung-gook Park (100%)	Jeong Kim (100%)	Curie Ahn (67%)	Han-jo Kim (100%)	Wha-jin Han (100%)	Jun-sung Kim (100%)
Jan 27	① Approval of FY21 financial statements and full-year business report	Approved	For	For	For	For	For	For		
	② Appointment of SCC member ※ Reported items: 1) Report on FY21 internal accounting management system activities 2) Report on evaluation of FY21 internal accounting management system activities	Approved	For	For	For	For	For	For	N/A (newly appointed)	N/A (newly appointed)
Feb 15	① Appointment of CEO	Approved	For	For	For	For	For	For		
	② Decision to convene the 53rd AGM	Approved	For	For	For	For	For	For		

Date	Agenda	Results	Independent Directors (attendance)							
			Jae-wan Bahk (67%)	Sun-uk Kim (100%)	Byung-gook Park (100%)	Jeong Kim (100%)	Curie Ahn (67%)	Han-jo Kim (100%)	Wha-jin Han (100%)	Jun-sung Kim (100%)
	③ Decisions on the 53rd AGM agenda items ※ Reported Items: 1) FY21 annual audit report, 2) FY21 full-year business report, 3) Report on FY21 internal accounting management system activities ※ Agenda item 1: Approval of FY21 financial statements, including balance sheet, income statement, and the statement of appropriation of retained earnings, etc. ※ Agenda item 2: Appointment of Directors 2-1: Appointment of Independent Directors 2-1-1: Appointment of Han-jo Kim as Independent Director 2-1-2: Appointment of Wha-jin Han as Independent Director 2-1-3: Appointment of Jun-sung Kim as Independent Director 2-2: Appointment of Executive Directors 2-2-1: Appointment of Kye-hyun Kyung as Executive Director 2-2-2: Appointment of Tae-moon Roh as Executive Director 2-2-3: Appointment of Hark-kyu Park as Executive Director 2-2-4: Appointment of Jung-bae Lee as Executive Director 2-3: Appointment of Audit Committee Member 2-3-1: Appointment of Han-jo Kim as Audit Committee Member 2-3-2: Appointment of Jeong Kim as Audit Committee Member ※ Agenda item 3: Approval of remuneration limit for Directors ④ Revision of internal accounting management regulations ⑤ Approval of 2022 social contribution matching fund ⑥ Donation to Chung-nam Samsung Institute* ⑦ Purchase of product liability insurance	Approved	For	For	For	For	For	For		
	① Appointment of Chairman of the Board ② Appointment of CEO ③ Appointment of Board committee members ④ Setting remuneration of Directors ⑤ Participation in Samsung Biologics' rights offering	Approved	Absent	For	For	For	Absent	For	For	For
Mar 16		Approved	Absent	For	For	For	Absent	For	For	For
	① Approval of 1Q22 interim business report and quarterly dividend ② Real estate lease agreement of company building of SEC in Seocho ③ Purchase of employee insurance policy ④ Charitable contributions ⑤ Lease agreement with Samsung SDI ⑥ Donation to incentive fund for DS Division's suppliers ⑦ Establishment of plans on safety and health	Approved	N/A (term expiration)	For	For	For	N/A (term expiration)	For	N/A (resigned)	For
Apr 28		Approved		For	For	For		For		For

*CEO Ki-nam Kim did not vote as it is a transaction between a Director and the Company in accordance with the Commercial Act and Ki-nam Kim

has a special interest in the agenda item.

Mar 16, 2022: Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park, and Jung-bae Lee were newly appointed as Executive Directors, Wha-jin Han and Jun-sung Kim as Independent Directors; and Han-jo Kim was reappointed as an Independent Directors at the AGM.

Mar 16, 2022: Ki-nam Kim, Hyun-suk Kim, and Dong-jin Koh resigned from their positions as Executive Director.

Mar 19, 2022: Terms of Jae-wan Bahk and Curie Ahn as Independent Director expired.

Apr 20, 2022: Wha-jin Han resigned from her position as Independent Director.

May 17, 2022: Independent Director Byung-gook Park passed away.

C. Committees

(1) Composition of Board Committees

[As of June 30, 2022]

Committee	Composition	Members	Responsibilities and authorities	Note
Management	5 Executive Directors	Jong-hee Han (head), Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park, Jung-bae Lee	See below	Appointment of Executive Director Jong-hee Han as the Head (April 1, 2022)
Related Party Transactions	3 Independent Directors	Sun-uk Kim (head), Han-jo Kim, Jeong Kim		Appointment of Independent Director Sun-uk Kim as the Head (April 27, 2021)
Compensation	2 Independent Directors	Han-jo Kim, Jun-sung Kim		-
Sustainability (formerly Governance)	4 Independent Directors	Han-jo Kim (head), Sun-uk Kim, Jeong Kim, Jun-sung Kim		Appointment of Independent Director Han-jo Kim as the Head (April 28, 2022)

The Audit Committee and Independent Director Recommendation Committee were excluded according to Corporate Disclosure Guidelines.

Jul 29, 2021: The Governance Committee was reorganized into the Sustainability Committee at the Board meeting.

Mar 16, 2022: Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park, and Jung-bae Lee were newly appointed as Executive Directors, Wha-jin Han and Jun-sung Kim as Independent Directors; and Han-jo Kim was reappointed as an Independent Director at the AGM.

Mar 16, 2022: Ki-nam Kim, Hyun-suk Kim, and Dong-jin Koh resigned from their positions as Executive Director.

Mar 19, 2022: Terms of Jae-wan Bahk and Curie Ahn as Independent Director expired.

Apr 1, 2022: Executive Director Jong-hee Han was appointed as the Head of Management Committee.

Apr 20, 2022: Wha-jin Han resigned from her position as Independent Director.

Apr 28, 2022: Independent Director Han-jo Kim was appointed as the Head of Sustainability Committee.

May 17, 2022: Independent Director Byung-gook Park passed away.

Jul 28, 2022: Independent Director Jeong Kim was appointed as Compensation Committee member at the Board meeting.

Head of Compensation Committee will be appointed at the upcoming committee meeting.

(The Management Committee)

Responsibilities: The Management Committee deliberates and decides on matters specified by Board regulations and resolutions or specifically delegated by the Board. The composition and operation of the management committee are determined by the Board.

- **Authorities:**

(A) General management

1. Annual or mid to long-term management policy and strategy
2. Key management strategy
3. Business planning and restructuring
4. Establishment, relocation, and withdrawal of overseas branch and corporation
5. Initiating cooperation such as strategic partnership with foreign companies
6. Acquisition or disposal of domestic and overseas subsidiaries (provided that the value of transaction exceeds 0.1% of total equity)
7. Other major management matters
8. Establishment, relocation, and withdrawal of branches and operations
9. Appointment or dismissal of supervisors
10. Suspension or shutdown of production over 5% of the total production in the recent year
11. Licensing agreements and technology transfer, partnership in regards to technology of over 0.5% of the total equity
12. Acquisitions and transfers of patents related to new material and new technology of over 0.5% of the total equity
13. Collection and destruction of products corresponding to over 5% of the total sales in the recent business year
14. Contracting for over 5% of the total sales in the recent business year
15. Contracting or canceling of single sales agency and suppliers over 5% of the total sales in the recent business year
16. Establishment of basic principles of organization management
17. Decision making on basic principles and any changes related to wages, bonus, and fringe benefits
18. Appointments, dismissals and changes of transfer agent
19. Closing of shareholder register and setting reference date
20. Establishment of corporate guidelines for business and management related activities

(B) Matters related to Finance

1. Acquisitions or disposals of equity investments with a value no less than 0.1% and less than 2.5% of the total equity
2. Direct overseas investments with a value no less than 0.1% and less than 2.5% of the total equity
3. New debt guarantee (excluding extension of period) or collateral issuance with a value no less than 0.1% and less than 2.5% of the total equity
 - A. Collateral: Only in the case of providing collateral for others
 - B. Guarantee: Excludes performance guarantee (eg, bid, contract, defect, difference guarantee) and tax payment guarantee
4. New credit agreement contract (excluding extension of period) with a value no less than 0.1% and less than 5% of the total equity
5. Approval of related party transactions:
Related party transactions with affiliates involving cash (loans and payments), equity (stocks and bonds) or assets (such as real estate and intangible property rights) with a value between KRW 3 billion and/or less than KRW 5 billion, as defined in the Monopoly Regulation and Fair Trade Act
※ Excluding cases where existing contracts are renewed without significant change.
6. Issuance of corporate bonds
7. Acquisition and disposal of real estate with a value of over 0.1% of the total equity, provided that the transaction is with a third party
8. Any matters that the CEO deems necessary and important for the business (eg, capex)

(C) All other matters except for those delegated to the Board and other committees in accordance with Board regulations

(Related Party Transactions Committee)

- Responsibilities: Improve management transparency through the establishment of a voluntary compliance system

- Authorities:

1. Right to receive reports on related party transactions:
The Committee can request reports on related party transactions with affiliates
※ According to the Monopoly Regulation and Fair Trade Act, the Related Party Transactions committee is permitted to conduct preliminary reviews and approves on related party transactions over KRW 5 billion and other transactions that are deemed as significant
2. Right to order ex officio investigation of related party transactions
3. Right to propose corrective measures for related party transactions

(Compensation Committee)

- Responsibilities: Provide transparent and objective decision making process related to remuneration of directors

- Authorities:

1. Propose remuneration limit of directors at AGM
2. Establish the director remuneration system
3. Other matters delegated by the Board

(Sustainability Committee)

- Responsibilities: Promote sustainability management in ESG areas and enhance shareholder value

- Authorities:

1. Matters related to corporate sustainability management
 - Key strategies and policies on sustainability management
 - Report on key activities for sustainability management including environment, society, and governance
 - Plans for publishing the Company's Sustainability Report
2. Matters related to shareholder value enhancement
 - Preliminary review on shareholder return policies
 - Report on key issues related to shareholder rights and interests
 - Other matters that may significantly impact sustainability management and shareholder value that are deemed necessary for the Committee to discuss
3. Establishment, composition, operation of organizations under the committee including research groups, councils, etc.
4. Other matters delegated by the Board

(2) Committee Activities

□ The Management Committee (2022)

Date	Agenda	Voting results	Director (attendance)							
			Ki-nam Kim (100%)	Hyun-suk Kim (100%)	Dong-jin Koh (100%)	Jong-hee Han (100%)	Kye-hyun Kyung (100%)	Tae-moon Roh (100%)	Hark-kyu Park (100%)	Jung-bae Lee (100%)
Jan 27	① Investment in Memory Business	Approved	For	For	For	For				
	② Investment in Memory Business (Pyeongtaek)	Approved	For	For	For	For				
	③ Establishment of overseas subsidiary	Approved	For	For	For	For				
	④ Lease agreement	Approved	For	For	For	For				
Feb 25	① Investment in Memory Business (Line 3 in Pyeongtaek)	Approved	For	For	For	For	N/A (newly appointed)	N/A (newly appointed)	N/A (newly appointed)	N/A (newly appointed)
	② Investment in Memory Business (Line 4 in Pyeongtaek)	Approved	For	For	For	For				
	③ Investment in Memory Business	Approved	For	For	For	For				
	④ Investment in DS division	Approved	For	For	For	For				
	⑤ Establishment of overseas subsidiary	Approved	For	For	For	For				
April 1	① Appointment of the Head of Management Committee	Approved				For	For	For	For	For
	② Investment in Memory Business (2023)	Approved				For	For	For	For	For
	③ Investment in Memory Business (2025)	Approved				For	For	For	For	For
	④ Investment in Memory Business	Approved				For	For	For	For	For
	⑤ Investment in Foundry Business (Pyeongtaek)	Approved				For	For	For	For	For
	⑥ Investment in Foundry Business	Approved	N/A (resigned)	N/A (resigned)	N/A (resigned)	For	For	For	For	For
	⑦ Investment in Test & System Package (Cheonan)	Approved				For	For	For	For	For
	⑧ Investment in Test & System Package	Approved				For	For	For	For	For
	⑨ Lease agreement	Approved				For	For	For	For	For
	⑩ Investment in semiconductor research center (Giheung)	Approved				For	For	For	For	For
	⑪ Investment in semiconductor research center	Approved				For	For	For	For	For

Apr 5	① Investment in memory business	Approved				For	For	For	For	For
Apr 28	① Investment in semiconductor research center	Approved				For	For	For	For	For
	② Investment in Memory Business	Approved				For	For	For	For	For
	③ Purchase of liability insurance	Approved				For	For	For	For	For
May 27	① Investment in Foundry Business (Pyeongtaek)	Approved				For	For	For	For	For
	② Investment in Foundry Business (Pyeongtaek)	Approved				For	For	For	For	For
Jun 30	① Investment in Memory Business	Approved				For	For	For	For	For
	② Investment in Cheonan plant	Approved				For	For	For	For	For
	③ Partnership agreement	Approved				For	For	For	For	For

□ **The Related Party Transactions Committee (2022)**

Date	Agenda	Voting results	Directors (attendance)			
			Sun-uk Kim (100%)	Jae-wan Bahk (100%)	Han-jo Kim (100%)	Jeong Kim (100%)
Jan 25	① Report on 4Q21 related party transactions	-	-	-	-	N/A (newly appointed)
Feb 11	① Prior review on large-scale related party transactions	-	-	-	-	
	1) Purchase of product liability insurance	-	-	-	-	
Mar 11	① Prior review on large-scale related party transactions	-	-	-	-	-
	1) Participation in Samsung Biologics' rights offering	-	-	-	-	
Apr 26	① Prior review on large-scale related party transactions	-	-	N/A (term expiration)	-	-
	1) Real estate lease agreement of company building of SEC in Seocho 2) Purchase of employee insurance policy 3) Charitable contributions 4) Lease agreement with Samsung SDI	-	-		-	-
	② Report on 1Q22 related party transactions	-	-		-	-

□ The Compensation Committee (2022)

Date	Agenda	Voting results	Directors (attendance)				
			Byung-gook Park (100%)	Jae-wan Bahk (100%)	Jeong Kim (100%)	Han-jo Kim (-)	Jun-sung Kim (-)
Feb 11	① Review on 2022 fixed annual salary for each Executive Director	Approved	For	For	For	N/A (newly appointed)	N/A (newly appointed)
	② Review on 2022 remuneration limit for Directors	Approved	For	For	For		

□ The Sustainability Committee (2022)

Date	Agenda	Voting results	Directors (attendance)								
			Jae-wan Bahk (100%)	Sun-uk Kim (100%)	Byung-gook Park (100%)	Jeong Kim (100%)	Curie Ahn (100%)	Han-jo Kim (100%)	Wha-jin Han (-)	Jun-sung Kim (100%)	
Feb 11	※ Reporting Item										
	1) Report on social contribution activities 2.0	-	-	-	-	-	-	-	-	N/A (newly appointed)	N/A (newly appointed)
	2) Report on current status on joining the UN Global Compact	-	-	-	-	-	-	-	-		
	3) Report on updates of IR activities	-	-	-	-	-	-	-	-		
Apr 28	※ Reporting Item	Approved		For	For	For			For		For
	1) Appointment of the head of the Sustainability Committee										
	2) Report on updates of IR activities	-									
	3) Report on the results of ESG meetings with investors	-	N/A (term expiration)	-	-	-	-	N/A (term expiration)	-	N/A (resigned)	-
	4) Report on plans for publishing the Sustainability Report	-									
	5) Report on key tasks in company-wide sustainability management	-									
	6) Report on the results of survey on corporate reputation	-									

Jul 29, 2021: The Governance Committee was reorganized into the Sustainability Committee at the Board meeting.

D. Director independence

(1) Appointment of Directors

The Board nominates Executive Director candidates and the Independent Director Recommendation Committee nominates Independent Director candidates. Directors are then appointed at the general meeting.

A candidate for Director needs to meet the requirements of relevant laws and the Articles of Incorporation. Executive Directors are appointed based on his or her expertise and leadership among a list of candidates that is constantly updated. Independent Directors should have no material interests with the Company and its major shareholder, possess knowledge and experience in IT, accounting, finance, law, economics, EHS, etc., and be able to fulfill the roles and responsibilities of supervising management from an independent position. The company has not set separate standards with respect to the independence of Directors besides the requirements in relevant laws and the Article of Incorporation.

Please refer to 『VIII. Executives and Employees』 for more information about the career of each Director.

The Board submits shareholders' proposal for appointment of Directors at the general shareholder meeting as a separate agenda if the proposal satisfies related laws and regulations.

The composition of the Board of Directors, as appointed by shareholders, is as follows:

[As of June 30, 2022]

Position	Name	Term (No. of reappointments)	Reasons for appointment	Nominator	Responsibility	Transaction with the Company	Relationship with the Company's major shareholders
Executive Director (CEO)	Jong-hee Han	Mar 2020 – Mar 2023 (None)	Director Jong-hee Han is an expert in display R&D and played a leading role in continuously achieving the top position in the global TV market. He will contribute to further solidifying TV leadership amid intensifying competition by using his outstanding business capabilities.	The Board	Overall management of the DX Division	N/A	Related party
Executive Director (CEO)	Kye-hyun Kyung	Mar 2022 – Mar 2025 (None)	As the Head of the DS Division, Director Kye-hyun Kyung has developed technologies in all three major memory products—DRAM, flash, and solution. He was judged to be the most qualified person to improve organization's fundamentals through communicative and empathetic leadership as well as to firmly solidify our position as a leader in the global semiconductor market.	The Board	Overall management of the DS Division	N/A	Related party

Position	Name	Term (No. of reappointments)	Reasons for appointment	Nominator	Responsibility	Transaction with the Company	Relationship with the Company's major shareholders
Executive Director	Tae-moon Roh	Mar 2022 – Mar 2025 (None)	Director Tae-moon Roh has served in various core positions in the MX Business, and in 2021, delivered record results—the highest since 2014—achieving KRW 104 trillion in revenue through products such as S21 and foldables. He is expected to contribute significantly to enhancing corporate fundamentals, such as improving profitability and solidifying business fundamentals.	The Board	Overall management of the MX Business	N/A	Related party
Executive Director	Hark-kyu Park	Mar 2022 – Mar 2025 (None)	Director Hark-kyu Park has held numerous key positions in core businesses and proved his risk management capabilities. Furthermore, he has successfully led business innovations with a broad perspective. As the Head of Corporate Management Office of the DX Division, his responsibilities include overall corporate support, management analysis, and even auditing to deliver business achievements, and he contributes significantly to coordinating management issues across the entire Company.	The Board	Overall management	N/A	Related party

Position	Name	Term (No. of reappointments)	Reasons for appointment	Nominator	Responsibility	Transaction with the Company	Relationship with the Company's major shareholders
Executive Director	Jung-bae Lee	Mar 2022 – Mar 2025 (None)	Director Jung-bae Lee is an expert who has the experience of serving in key positions, including development, quality, and strategy. He oversaw the Company achievement of being the top firm in terms of DRAM revenue for a 30th consecutive year by securing product competitiveness, and he spearheaded the efforts to regain the title of No.1 global semiconductor revenue in 2021, demonstrating his extensive experience and outstanding capabilities in DS Division businesses.	The Board	Overall management of the Memory Business	N/A	Related party
Independent Director	Han-jo Kim	Mar 2019 – Mar 2025 (1)	Director Han-jo Kim has built expertise in finance and business management through his experience as a President of Korea Exchange Bank and now serves as the chairman of a social contribution foundation. He will contribute to the Company by providing valuable insight on overall business issues and by utilizing expertise in finance, co-growth, etc.	Independent Director Recommendation Committee	Overall management	N/A	N/A
Independent Director	Sun-uk Kim	Mar 2018 – Mar 2024 (1)	Director Sun-uk Kim is a legal expert and has experience as a professor at a school of law and the Legislation Minister. She can present a new perspective to the Board based on objective and juridical reasoning.	Independent Director Recommendation Committee	Overall management	N/A	N/A
Independent Director	Jeong Kim	Mar 2018 – Mar 2024 (1)	Director Jeong Kim is an IT expert and an entrepreneur. He will contribute to the Board's strategic decisions by utilizing his expertise, wide network, and business capability.	Independent Director Recommendation Committee	Overall management	N/A	N/A

Position	Name	Term (No. of reappointments)	Reasons for appointment	Nominator	Responsibility	Transaction with the Company	Relationship with the Company's major shareholders
Independent Director	Jun-Sung Kim	Mar 2022 – Mar 2025 (None)	Director Jun-sung Kim is an expert in the global economy and investment who has experience analyzing and investing in stock markets in advanced economies. He will effectively represent foreign markets and investors and contribute significantly to establishing investment strategies in line with current trends via global networking.	Independent Director Recommendation Committee	Overall management	N/A	N/A

Relationship with Company's major shareholders is in accordance with Article 542-8 of the Commercial Act.

Feb 15, 2022: Executive Directors Ki-nam Kim, Hyun-suk Kim, and Dong-jin Koh resigned from their positions as CEO; and Executive Director Jong-hee Han was appointed as CEO at the Board meeting.

Mar 16, 2022: Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park, and Jung-bae Lee were newly appointed as Executive Directors, Wha-jin Han and Jun-sung Kim as Independent Directors; and Han-jo Kim was reappointed as an Independent Director at the AGM.

Mar 16, 2022: Ki-nam Kim, Hyun-suk Kim, and Dong-jin Koh resigned from their positions as Executive Director.

Mar 16, 2022: Executive Director Kye-hyun Kyung was appointed as CEO at the Board meeting.

Mar 19, 2022: Terms of Jae-wan Bahk and Curie Ahn as Independent Director expired.

Apr 20, 2022: Wha-jin Han resigned from her position as Independent Director.

May 17, 2022: Independent Director Byung-gook Park passed away.

(2) Independent Director Recommendation Committee

The Independent Director Recommendation Committee assesses the independence and ability of potential candidates and recommends selected candidates to be appointed at the AGM. As of the reporting date (June 30, 2022), the committee is composed of one Independent Director (Jeong Kim).

Date	Agenda	Voting results	Directors (attendance)			
			Jeong Kim (100%)	Byung-gook Park (100%)	Curie Ahn (100%)	Wha-jin Han (-)
Jan 27	① Appointment of Head of the Committee	Approved	For	For	For	N/A (newly appointed)
	② Decision on date of Independent Director candidate recommendation	Approved	For	For	For	
Feb 11	① Recommendation of Independent Director candidate	Approved	For	For	For	

Jan 27, 2022: Independent Director Jeong Kim was appointed as the Head of Independent Director Recommendation Committee.

Mar 16, 2022: Wha-jin Han was appointed as Independent Director Recommendation Committee member at the AGM.

Mar 19, 2022: Terms of Curie Ahn as Independent Director expired.

Apr 20, 2022: Wha-jin Han resigned from her position as Independent Director.

May 17, 2022: Independent Director Byung-gook Park passed away.

Jul 28, 2022: Independent Director Sun-uk Kim was appointed as Independent Director Recommendation Committee member at the Board meeting. The Committee consisted of three Independent Directors (Byung-gook Park, Jeong Kim, and Curie Ahn) as of the reporting date of the 2021 full-year business report, but Wha-jin Han and Byung-gook Park vacated their positions as Independent Director during the reporting period. The Company will complement the composition of the Committee through follow-up measures.

(3) Expertise of Independent Directors

1) Support team for Independent Directors

[As of June 30, 2022]

Team	Number of employees	Position (total years served/ years in support team)	Key activities
HR	5	Executive Vice President: 1 person (31 years and 7 months / 3 years and 6 months) Executive Vice President: 1 person (28 years and 4 months / 2 years and 5 months) Principal Professional: 1 person (19 years and 5 months / 2 year and 11 months) Senior Professional: 2 persons (average: 13 years and 2 months / 3 years and 6 months)	<ul style="list-style-type: none"> Support operation of annual shareholders' meeting, Board meetings, and Committee meetings Support education for Independent Directors and their activities Establish database on Director candidates Provide information for resolution process to each Directors Administrative work for meetings Record meeting agendas for the Board and committee meetings

2) Education programs to provide updates on key management issues for Independent Directors

① Inspection of domestic and overseas business sites

Date	Organizer	Participants	Reasons for absence	Education contents
Apr 28, 2022	MX division	Han-jo Kim, Sun-uk Kim, Byung-gook Park, Jeong Kim, Jun-sung Kim	N/A	On-site visit to check the current management status of businesses

② Orientation for newly appointed Independent Directors

Date	Organizer	Participants	Reasons for absence	Education contents
Apr 27, 2022	Corporate Management Office	Jun-sung Kim	N/A	Key issues regarding Board activities and management

New Independent Directors are subject to the orientation.

③ Orientation for Independent Directors

Date	Organizer	Participants	Reasons for absence	Education contents
Nov 27, 2020	Planning Team	Jae-wan Bahk, Sun-uk Kim, Byung-gook Park, Jeong Kim, Curie Ahn, Han-jo Kim	N/A	Changing environment in post-COVID-19 era and mid- to long-term strategy

2. Audit System

A. Profiles of Audit Committee members

As of June 30, 2022, SEC operates an Audit Committee consisting of three Independent Directors. Director Han-jo Kim qualifies as an expert in finance in accordance with relevant regulations.

Name	Major experience	Accounting/financial expertise ¹⁾	
		Classification	Relevant experience
Han-jo Kim	<ul style="list-style-type: none"> • 2021–present: CEO/Rep Director, Hana Nanum Foundation • 2019–2021: CEO/Rep Director, Hana Foundation • 2015–2019: CEO/Rep Director, Hana Nanum Foundation • 2015–2016: Vice Chairman, Hana Financial Group • 2014–2015: President, Korea Exchange Bank • 2013–2014: President, KEB Capital Inc. 	Type 4 ²⁾	<ul style="list-style-type: none"> • 2015–2016: Vice Chairman, Hana Financial Group • 2014–2015: President, Korea Exchange Bank • 2013–2014: President, KEB Capital • 2012–2013: Head of Corporate Business Group, Korea Exchange Bank • 1999–2002, 2004–2005: Head of Branch, Korea Exchange Bank
Sun-uk Kim	<ul style="list-style-type: none"> • 2018–present: Professor Emeritus, School of Law, Ewha Womans University • 1995–2018: Professor, Ewha Law School, Ewha Womans University • 2010–2014: President, Ewha Womans University • 2005–2007: Minister of Government Legislation 	–	–
Jeong Kim	<ul style="list-style-type: none"> • 2013–present: Co-Founder and Executive Chairman, Kiswe Mobile • 2011–2013: Chief Strategy Officer, Alcatel-Lucent • 2005–2013: President, Alcatel-Lucent Bell Labs • 2002–2013: Professor of Electrical and Computer Engineering & Mechanical Engineering, University of Maryland • 1998–2001: President, Lucent Technologies • 1992–1998: Founder, Chairman & CEO, Yurie Systems 	–	–

1) Defined in Public Disclosure Guideline and Article 37-2 of the Enforcement Decree of the Commercial Act

2) Experience at financial, government, securities-related organizations in charge of accounting or finance or in charge of supervision over accounting or finance for an aggregate of at least five years

During the reporting period, Independent Director Jae-wan Bahk resigned from his position and Independent Director Jeong Kim was appointed as Audit Committee member at the AGM on March 16, 2022.

B. Audit Committee independence

Pursuant to related laws and the Articles of Incorporation, SEC has prepared internal audit regulations which encompass composition, operation, authority, and responsibility of the Audit Committees to carry out audit related activities.

The Audit Committee is exclusively composed of Independent Directors recommended by the Board and appointed at the general shareholder meeting. Currently, it includes financial expert Han-jo Kim and legal expert Sun-uk Kim. Committee members do not have any relation to the Company's major shareholders that may undermine the independence of the Committee. Also, the Audit Committee satisfies requirements of relevant laws (eg, the stipulation that the role of head of the committee be held by an Independent Director).

Requirements	Requirement status	Applicable acts, etc.
The audit committee shall consist of at least three directors.	Satisfied: the committee consists of three Directors	Article 415-2 (2) of the Commercial Act, Article 2 of the Company's Audit Committee Regulation
The ratio of independent directors shall exceed two thirds of the total number of members.	Satisfied: all members are independent directors)	
At least one member of the committee shall be an accounting or financing expert.	Satisfied: Independent Director Han-jo Kim	Article 542-11 (2) of the Commercial Act, Article 3 of the Company's Audit Committee Regulation
The representative of the committee shall be an Independent Director.	Satisfied: Independent Director Han-jo Kim	
Other conditions (related party of the major shareholder, etc.)	Satisfied (n/a)	Article 542-11 (3) of the Commercial Act

[As of June 30, 2022]

Name	Term (No. of reappointments)	Reasons for appointment	Nominator	Relationship with the Company	Relationship with the Company's major shareholders	Concurrent positions
Han-jo Kim	Mar 2019–Mar 2025 (1)	As an expert in finance with broad experience and expertise, he will offer impartial judgement on overall management activities while carrying out his duties.	Independent Director Recommendation Committee	N/A	N/A	-
Sun-uk Kim	Mar 2018–Mar 2024 (1)	Based on the legal expertise and experience running organizations in areas including administration, finance, international affairs, etc., she can carry out the duties in an aboveboard manner with strict standards.	Independent Director Recommendation Committee	N/A	N/A	-
Jeong Kim	Mar 2018–Mar 2024 (1)	As a global business leader with the experience of operating a number of companies transparently and fairly, he will offer independent and objective perspective while carrying out his duties	Independent Director Recommendation Committee	N/A	N/A	Chairman of KISWE Mobile (2013-present)

Relationship with the Company and Company's major shareholders is in accordance with Article 542-8 of the Commercial Act.

The Audit Committee reviews accounting documents including financial statements and audit process related documents presented by the external auditor, and if needed, requests the external auditor to perform additional reviews on accounting books and records. To ensure the reliability of accounting related disclosures, the audit committee receives and reviews a report on internal accounting control systems prepared by internal accounting managers. In addition, the Committee attends the Board meetings and other significant meetings. The Committee receives reports on deliberations of the Management Committee and on business performance from Directors and requests additional reviews and supplementation of data as needed.

C. Major activities of the Audit Committee (2022)

Date	Agenda	Voting results	Directors (attendance)			
			Jae-wan Bahk (100%)	Sun-uk Kim (100%)	Han-jo Kim (100%)	Jeong Kim (100%)
Jan 25	- Report on 2021 internal accounting management system activities	-	-	-	-	N/A (newly appointed)
	- Report on evaluation of 2021 internal accounting management system activities	-	-	-	-	
	- Communication between external auditor and audit committee	-	-	-	-	
	- Report on 2021 financial statement and business report	-	-	-	-	
	- Report on 4Q21 non-audit activities	-	-	-	-	
	- Report on 4Q21 external contributions	-	-	-	-	
	- Report on 2021 audit activities	-	-	-	-	
Feb 11	- Review of the 53rd AGM agenda	-	-	-	-	
	- Revisions of internal accounting management system activities	Approved	For	For	For	
	- Report on activities of internal compliance system in 2021	-	-	-	-	
Apr 26	- Appointment of the Head of the Audit Committee	-	-	-	-	-
	- Communication between external auditor and audit committee	Approved	-	For	For	For
	- Report on evaluation of 2021 external audit activities	-	-	-	-	-
	- Decision on the terms and conditions of the audit contract with the designated external auditor	Approved	-	For	For	For
	- Report on 1Q22 interim business report	-	N/A (resigned)	-	-	-
	- Report on 1Q22 non-audit activities	-	-	-	-	-
	- Report on plans for reviewing 2022 internal accounting management system activities	-	-	-	-	-
	- Report on 1Q22 external contributions	-	-	-	-	-
- Report on plans for evaluating 2022 internal accounting management system activities	-	-	-	-	-	

D. Education programs for the Audit Committee

In accordance with the working guide for internal accounting management system, we are conducting additional training to ensure the expertise of the Audit Committee. Organized by external experts, finance team, and audit team, education on changes to internal control, internal accounting management system is provided more than once a year.

E. Previous education sessions

Date	Organizer	Participants	Reasons for absence	Education contents
Jul 28, 2020	External experts	Jae-wan Bahk Sun-uk Kim Han-jo Kim	N/A	Internal accounting management system
Jul 27, 2021	External experts	Jae-wan Bahk Sun-uk Kim Han-jo Kim	N/A	Internal accounting management system
May 25, 2022	Corporate Finance & Accounting Team, External experts	Jeong Kim	N/A	Introduction materials

F. Support team for the Audit Committee

[As of June 30, 2022]

Team	Composition	Service years on team	Major tasks
Audit team	1 Executive Vice President, 1 Principal Professional, 2 Senior Professionals	Executive Vice President: 2 Years and 6 months Principal professional: 4 years and 6 months (average) Senior Professional: 1 year and 11 months	Support the Audit Committee
Internal accounting assessment support group	1 Vice President, 1 Lawyer, 1 Senior Professional	Vice President: 3 years and 6 months Lawyer: 1 year and 3 months Senior Professional: 1 year and 5 months	Support assessment of the internal accounting management system

G. Compliance Officer

[As of June 30, 2022]

1. Personal information and major career	Name	Duk-ho Ahn
	Date of birth	July 1968
	Sex	Male
	Current position	Corporate Compliance Team leader at Samsung Electronics (Jan 2020–present)
	Career	- Jan 2020: Head of Compliance Team, SEC (Executive Vice President) - Nov 2017: Head of Legal Support Team, SEC DS Division (Executive Vice President) - Apr 2017: Head of Legal Support Team, SEC DS Division (Senior Vice President) - Dec 2010: Office of Compliance Management, SEC (Senior Vice President) - Mar 2006: Office of Legal Affairs, SEC (Vice President) - Mar 2005: Office of Legal Affairs, Samsung Restructuring Head Office (Vice President) - 1997–2005: Judge at the Seoul District Court, Seoul Administration Court
	Academic background	Bachelor's Degree in Law (Seoul National University)
2. Date of Board resolution		Jan 30, 2020
3. Disqualifications		N/A
4. Others		N/A

Compliance officer meets the eligibility requirement (lawyer) stated in Article 542-13 (5) of the Commercial Act.

H. Major compliance activities

The Company conducts compliance assessments on a regular and ad-hoc basis and reflects the results in the Company's business activities to improve compliance of the Company and its employees.

Date	Assessment subject	Assessment area	Results
Jan 2022	Current status of management of secret information	Business secrets	Overall result was satisfactory. Internal policies were followed in areas where there was room for improvement.
Mar 2022	Compliance of domestic and overseas third-party production customers	Technology leak, product liability, etc.	
Apr 2022	Compliance of domestic organizations involved with development	Business secrets, Technology misuse, etc.	
Jun 2022	Voluntary compliance of overseas subsidiaries	Status of compliance program	
	Compliance of overseas production subsidiaries	Technology misuse, Anti-corruption, etc.	
	Compliance of overseas sales subsidiaries	Fair transaction, business secrets, etc.	
	Compliance of domestic and overseas third-party production customers	Technology leak, product liability, etc.	

Assessment conducted in the final month of each quarter.
Each assessment was conducted on selected organizations.

I. Support team for the Compliance Officer

[As of June 30, 2022]

Team	Composition	Service years (average)	Major tasks
Compliance team, etc.	1 Executive Vice President, 3 Vice Presidents, 17 Principal Professionals / Engineers, 11 Lawyers, 36 Senior Professionals, 6 Professionals (Total: 74)	Executive Vice President (7 months) Vice Presidents (5 years and 9 months) Principal Professionals (8 years and 1 month) Lawyers (4 years and 3 months) Senior Professionals (5 years) Professionals (1 year and 5 months)	Supports activities of the Compliance Officer

3. General meeting of shareholders

A. Voting method

As of June 30, 2022, the Company has not adopted cumulative voting or paper voting and has adopted electronic voting, which was used at the 53rd AGM on March 16, 2022.

On January 30, 2020, the Board resolved to adopt electronic voting to enhance convenience in exercising voting rights for shareholders in accordance with Article 368-4 (Exercise of Voting Rights by Electronic Means) of the Commercial Act. E-voting has been used at every AGM since it was introduced at the 51st AGM on March 18, 2020.

The convocation notice of general meeting of shareholders includes the information that voting rights can be exercised electronically. Owners of shares as of the last day of every settlement term can exercise their voting rights via the electronic voting system of Korea Securities Depository ten days prior to general meeting date until the day before the meeting, without being present at the meeting.

[As of June 30, 2022]

Classification	Cumulative voting	Paper voting	Electronic voting
Adoption	Excluded	Not adopted	Adopted
Implementation	-	-	53rd AGM (2021)

The Company as of the reporting date employs proxy voting and it contacts shareholders directly to recommend delegating voting rights, contacts shareholders by mail or email, and also made a power of attorney form available on the Company website.

B. Voting shares

As of June 30, 2022, SEC has 5,969,782,550 issued shares of common stock, and 822,886,700 issued shares of preferred stock with no voting rights. There are 597,470,209 shares of common stock with limited voting rights under relevant laws. Thus, the total number of shares with full voting rights is 5,372,312,341.

[As of June 30, 2022]

Classification	Share type	Number of shares	Note
Number of issued shares (A)	Common	5,969,782,550	-
	Preferred	822,886,700	-
Shares with no voting rights (B)	Common	-	-
Shares with no voting rights according to Articles of Incorporation (C)	Preferred	822,886,700	-
Shares with limited voting rights under relevant laws (D)	Common	596,959,200 ¹⁾	508,157,148 shares held by Samsung Life Insurance & 88,802,052 shares held by Samsung Fire & Marine Insurance
	Common	511,009	Restricted by the Insurance Business Act: Shares held by Samsung Life Insurance in certain special accounts
Shares with voting rights (F = A - B - C - D)	Common	5,372,312,341	-

Classification	Share type	Number of shares	Note
	Preferred	-	-

1) Pursuant to Korea's Monopoly Regulation and Fair Trade Act, owners can exercise certain rights on some shares in accordance with related laws, including the right to vote on agendas such as the appointment or dismissal of directors and revisions to the Articles of Incorporation.

C. Results of shareholder meetings

[As of June 30, 2022]

Date	Agenda	Results
The 53rd AGM (Mar 16, 2022)	1. Approval of FY21 financial statements, including balance sheet, income statement, and the statement of appropriation of retained earnings, etc. 2. Appointment of Directors 2-1: Appointment of Independent Directors 2-1-1: Appointment of Han-jo Kim as Independent Director 2-1-2: Appointment of Wha-jin Han as Independent Director 2-1-3: Appointment of Jun-sung Kim as Independent Director 2-2: Appointment of Executive Directors 2-2-1: Appointment of Kye-hyun Kyung as Executive Director 2-2-2: Appointment of Tae-moon Roh as Executive Director 2-2-3: Appointment of Hark-kyu Park as Executive Director 2-2-4: Appointment of Jung-bae Lee as Executive Director 2-3: Appointment of Audit Committee Member 2-3-1: Appointment of Han-jo Kim as Audit Committee Member 2-3-2: Appointment of Jeong Kim as Audit Committee Member 3. Approval of remuneration limit for Directors	Approved Approved Approved Approved Approved Approved Approved Approved Approved Approved Approved
The 52nd AGM (Mar 17, 2021)	1. Approval of Balance Sheet, Income Statement, and Statement of Appropriation of Retained Earnings, etc. for 2020 2. Appointment of Directors 2.1: Appointment of Independent Directors 2.1.1: Byung-gook Park 2.1.2: Jeong Kim 2.2: Appointment of Executive Directors 2.2.1: Ki-nam Kim 2.2.2: Hyun-suk Kim 2.2.3: Dong-jin Koh 3. Appointment of Sun-uk Kim as Independent Director for Audit Committee Member 4. Approval of remuneration limit for Directors	Approved Approved Approved Approved Approved Approved Approved Approved
The 51st AGM (Mar 18, 2020)	1. Approval of Balance Sheet, Income Statement, and Statement of Appropriation of Retained Earnings (draft), etc. for 2019 2. Appointment of Executive Directors 2.1: Jong-hee Han 2.2: Yoon-ho Choi 3. Approval of remuneration limit for Directors	Approved Approved Approved Approved

An extraordinary meeting of shareholders was not held during the reporting period.

VII. Information on Shareholders

1. Ownership of shares by the major shareholder(s) and related parties

[As of June 30, 2022]

Name	Relationship ¹⁾	Type of share	Ownership				Notes
			Period start		Period end		
			Shares	Stake (%)	Shares	Stake (%)	
Samsung Life Insurance	Major shareholder	Common	508,157,148	8.51	508,157,148	8.51	-
		Preferred	43,950	0.01	43,950	0.01	-
Samsung Life Insurance (special accounts)	Major shareholder	Common	13,860,804	0.23	13,332,034	0.22	Open market transactions
		Preferred	548,463	0.07	538,029	0.07	Open market transactions
Samsung C&T	Affiliate	Common	298,818,100	5.01	298,818,100	5.01	-
Samsung Fire & Marine Insurance	Affiliate	Common	88,802,052	1.49	88,802,052	1.49	-
Samsung Welfare Foundation	Funded foundation	Common	4,484,150	0.08	4,484,150	0.08	-
Samsung Foundation Of Culture	Funded foundation	Common	1,880,750	0.03	1,880,750	0.03	-
Ra-hee Hong	Related party of the major shareholder	Common	137,244,666	2.30	117,302,806	1.96	Extended-hours transactions
		Preferred	206,633	0.03	206,633	0.03	-
Jae-yong Lee	Related party of the major shareholder	Common	97,414,196	1.63	97,414,196	1.63	-
		Preferred	137,757	0.02	137,757	0.02	-
Boo-jin Lee	Executive member of affiliate	Common	55,394,044	0.93	55,394,044	0.93	-
		Preferred	137,755	0.02	137,755	0.02	-
Seo-hyun Lee	Related party of the major shareholder	Common	55,394,044	0.93	55,394,044	0.93	-
		Preferred	137,755	0.02	137,755	0.02	-
Jong-hee Han	Executive member of affiliate	Common	5,000	0.00	15,000	0.00	Open market transactions
Kye-hyun Kyung	Executive member of affiliate	Common	0	0.00	18,050	0.00	Newly appointed
Tae-moon Roh	Executive member of affiliate	Common	0	0.00	13,000	0.00	Newly appointed
Hark-kyu Park	Executive member of affiliate	Common	0	0.00	18,000	0.00	Newly appointed
Jung-bae Lee	Executive member of affiliate	Common	0	0.00	15,000	0.00	Newly appointed
Han-jo Kim	Executive member of affiliate	Common	2,175	0.00	3,655	0.00	Open market transactions
Ki-nam Kim	Executive member of affiliate	Common	210,000	0.00	0	0.00	Resigned from his position as registered director

Name	Relationship ¹⁾	Type of share	Ownership				Notes
			Period start		Period end		
			Shares	Stake (%)	Shares	Stake (%)	
Hyun-suk Kim	Executive member of affiliate	Common	99,750	0.00	0	0.00	Resigned from his position as registered director
Dong-jin Koh	Executive member of affiliate	Common	75,000	0.00	0	0.00	Resigned from his position as registered director
Curie Ahn	Executive member of affiliate	Common	3,800	0.00	0	0.00	Term expiration
Byung-gook Park	Executive member of affiliate	Common	1,000	0.00	0	0.00	Position vacated
Total		Common	1,261,846,679	21.14	1,241,062,029	20.79	-
		Preferred	1,212,313	0.15	1,201,879	0.15	-

Common shares carry full voting rights while preferred shares do not (owners of certain common shares have limited voting rights in accordance with relevant laws).

For changes after June 30, 2022, please refer to 'Ownership status of securities, etc. of executives and major shareholder' published in Korean in DART (<http://dart.fss.or.kr>).

1) In accordance with Article 3 Paragraph 1 of Enforcement Decree of the Act on Corporate Governance of Financial Companies.

2. Matters related to the major shareholder

A. Overview of the major shareholder (corporation or organization)

(1) Basic information of the major shareholder (Samsung Life Insurance Co., Ltd.)

1) Legal, commercial name: Samsung Life Insurance Co., Ltd.

2) Date of establishment: April 24, 1957

3) Address, phone number, and English language website of the corporate headquarters

- Address: 11, Seocho-daero 74-gil, Seocho-gu, Seoul, Republic of Korea

- Phone: +82-2-1588-3114

- Website: <https://www.samsunglife.com>

4) CEO and major shareholder of the major shareholder (Samsung Life Insurance)

Name	Number of investors	CEO		Major shareholder	
		Name	Share ratio (%)	Name	Share ratio (%)
Samsung Life Insurance Co., Ltd	121,283	Young-muk Jeon	0.00	Samsung C&T	19.34

Number of investors is based on common shares as of December 31, 2021, and the names and share ratios of the CEO and the major shareholder are as of June 30, 2022.

5) Changes to the CEO and major shareholder of the major shareholder (Samsung Life Insurance)

Date of change	CEO		Major shareholder	
	Name	Share ratio (%)	Name	Share ratio (%)
Mar 19, 2020	Sung-chul Hyun	0.00	-	-
Mar 19, 2020	Young-muk Jeon	-	-	-
Mar 23, 2020	Young-muk Jeon	0.00	-	-
Mar 24, 2020	Young-muk Jeon	0.00	-	-
Mar 16, 2021	Young-muk Jeon	0.00	-	-

Date of change	CEO		Major shareholder	
	Name	Share ratio (%)	Name	Share ratio (%)
Apr 29, 2021	-	-	Kun-hee Lee	-
Apr 29, 2021	-	-	Samsung C&T	19.34

Mar 19, 2020: Sung-chul Hyun resigned from his position as CEO, and Executive Director Young-muk Jeon was appointed as CEO.

Apr 29, 2021: The major shareholder changed to Samsung C&T as the shares of the previous major shareholder (who passed away on October 25, 2020) were inherited.

(2) Financial status of the recent settlement term of the major shareholder (Samsung Life Insurance)

(KRW mil)

Classification	
Name of the corporation or organization	Samsung Life Insurance Co., Ltd
Total assets	314,998,662
Total liabilities	291,121,526
Total equity	23,877,136
Revenue	19,264,089
Operating profit	594,180
Net profit	501,162

The financial status is as of June 30, 2022, based on the consolidated K-IFRS financial statements.

(3) Business conditions of the major shareholder (Samsung Life Insurance)

Samsung Life Insurance is a company in which life insurance and its related reinsurance contract are the key purpose of business operations, and it operates businesses in accordance with the Insurance Business Act and other related laws.

Its key subsidiary, Samsung Card, is a specialized credit finance business company that operates specialized credit finance businesses (including credit card business, facility leasing business, and installment financing business) in accordance with the Specialized Credit Finance Business Act and other related laws.

☞ Please refer to the business report (interim and half-year) of Samsung Life Insurance published in DART (<http://dart.fss.or.kr>) for more details of the major shareholder.

B. Certain transaction that may cause changes in the major shareholder

N/A

C. Overview of the major shareholder of the major shareholder

(1) Basic information of the major shareholder (Samsung C&T) of the major shareholder (Samsung Life Insurance)

1) Legal, commercial name: Samsung C&T Corporation

2) Date of establishment and period of existence: Dongwha Real Estate was first established on December 23, 1963, and the company name was changed to Cheil Industries in July 2014. It merged with Samsung C&T Corporation (founded as Samsung Sanghoe on March 1, 1938, and established as Samsung C&T in January 1951) and changed the company name to Samsung C&T Corporation on September 2, 2015 (merger registration date).

3) Address, phone number, and English language website of the corporate headquarters

- Address: 26, Sangil-ro 6-gil, Gangdong-gu, Seoul, Republic of Korea
- Phone: +82-2-2145-5114
- Website: <https://www.samsungcnt.com>

4) CEO and major shareholder of the major shareholder (Samsung C&T) of the major shareholder

Name	Number of investors	CEO		Major shareholder	
		Name	Share ratio (%)	Name	Share ratio (%)
Samsung C&T	188,087	Jung-suk Koh	0.00	Jae-yong Lee	18.13
		Se-chul Oh	0.00		
		Seung-hwan Han	0.00		

As of June 30, 2022 based on common shares

5) Changes to the CEO and major shareholder of the major shareholder (Samsung C&T) of the major shareholder (Samsung Life Insurance)

Date of change	CEO		Major shareholder	
	Name	Share ratio (%)	Name	Share ratio (%)
Mar 19, 2021	Young-ho Lee	-	-	-
Mar 19, 2021	Keum-yong Chung	-	-	-
Mar 19, 2021	Se-chul Oh	0.00	-	-
Mar 19, 2021	Seung-hwan Han	0.00	-	-
Mar 19, 2021	Jung-suk Koh	0.00	-	-
Apr 29, 2021	-	-	Jae-yong Lee	18.13

Mar 19, 2021: Young-ho Lee and Keum-yong Chung resigned from their positions as CEO, Executive Directors Se-chul Oh and Seung-hwan Han were appointed as CEOs, and Jung-suk Koh was reappointed as CEO.

Apr 29, 2021: The share ratio (common share) of the major shareholder was changed (17.48%→18.13%) as the shares were inherited (by Jae-yong Lee and three others).

(2) Financial status of the recent settlement term of the major shareholder (Samsung C&T) of the major shareholder (Samsung Life Insurance)

(KRW mil)

Classification	
Name of the corporation or organization	Samsung C&T
Total assets	57,322,058
Total liabilities	26,505,556
Total equity	30,816,502
Revenue	21,258,300
Operating profit	1,097,530
Net profit	1,281,959

The financial status is as of June 30, 2022, based on the consolidated K-IFRS financial statements.

(3) Business conditions of the major shareholder (Samsung C&T) of the major shareholder (Samsung Life Insurance)

Samsung C&T is consisted of Engineering & Construction, Trading & Investment, Fashion, and Resort Groups as well as biomedicine OEM and biosimilar businesses. The Engineering & Construction Group operates businesses in building, civil infrastructure, plant, and housing areas domestically and globally; Trading & Investment trades internationally in various fields, including resource development, steel, chemical, industrial materials, and textiles. The Fashion Group manufactures and sells clothing, and processes and sells wool products (fabric). The Resort Group manages landscaping business, Everland (dry park), Caribbean Bay (water park), golf course, food supply services, and food distribution business (Samsung Welstory).

☞ Please refer to the business report (interim and half-year) of Samsung C&T published in DART (<http://dart.fss.or.kr>) for more details of the major shareholder of the major shareholder.

3. Change of the major shareholder

[As of June 30, 2022]

Date of change	Name of major Shareholder	Number of shares owned	Share ratio (%)	Reason for change	Note
Apr 29, 2021	Samsung Life Insurance	1,263,050,053	21.16	Shares of the previous major shareholder were inherited by beneficiaries	-

Number of shares owned and share ratio are the sum of those of the major shareholder and its related parties, and the number of shares is based on shares with voting rights (including those with limited voting rights in accordance with relevant laws).

4. Ownership of shares

A. Share ownership status

[As of June 30, 2022]

Classification	Name	Number of shares owned	Share ratio (%)	Note
Shareholders with over 5% voting shares ¹⁾	Samsung Life Insurance	521,489,182	8.74	Including special accounts
	National Pension Service	466,643,796	7.82	-
	BlackRock Fund Advisors	300,391,061	5.03	Based on January 28, 2019
	Samsung C&T	298,818,100	5.01	-
Employee Stock Ownership Association		-	-	-

Number of shares owned and share ratio of BlackRock Fund Advisors is based on the "Report on Mass Holding of Securities" disclosed on DART (<http://dart.fss.or.kr>) on February 7, 2019.

The number of shares owned and share ratio of Samsung Life Insurance includes special accounts.

1) Including shares with limited voting rights in accordance with relevant laws. For more information, please refer to 『VI. Corporate Governance-3. General meeting of shareholders-D. Voting shares』

B. Minority shareholders

[As of June 30, 2022]

Classification	Shareholder			Shares owned ¹⁾			Note
	Number of shareholders	Total shareholders	Portion (%)	Number of shares	Total number of shares	Portion (%)	
Minority shareholder	5,922,693	5,922,810	99.99	3,959,902,598	5,969,782,550	66.33	-

Shareholders with shares less than 1/100 of total issued stocks

1) Number of voting shares, including those with limited voting rights in accordance with relevant laws.

5. Stock price and stock transactions

A. Domestic stock market

Type			Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022
Common stock	Stock price (KRW)	High	78,900	75,400	72,900	69,300	68,100	66,800
		Low	71,300	71,500	69,500	64,800	64,900	57,000
		Average	76,540	73,689	70,410	67,395	66,852	61,125
	Volume (shares)	High (day)	25,470,640	17,781,783	37,943,357	26,190,390	24,365,002	34,111,306
		Low (day)	8,785,122	9,320,365	9,040,993	8,467,248	11,405,555	8,222,883
		Month	280,187,100	233,201,135	307,432,780	309,880,731	310,129,252	428,473,209
Preferred stock	Stock price (KRW)	High	72,600	69,000	66,100	63,000	60,900	60,200
		Low	65,600	65,300	63,000	58,000	57,500	52,000
		Average	70,220	67,178	63,924	60,743	59,605	56,015
	Volume (shares)	High (day)	2,335,000	1,872,958	2,673,569	2,109,901	2,118,486	2,545,751
		Low (day)	494,813	474,100	695,913	536,606	733,194	418,424
		Month	23,118,454	17,930,656	27,615,464	26,485,950	23,400,057	25,677,153

Stock price is based on the closing exchange rate of the applicable trading day.

B. Overseas stock market

□ Name of stock exchange: London Stock Exchange (common stock)

Type			Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	
Common stock	Price per GDR	High	USD	1,657.00	1,584.00	1,499.50	1,427.00	1,355.00	1,330.00
			KRW	1,980,446	1,894,464	1,803,449	1,735,375	1,703,100	1,656,914
		Low	USD	1,499.50	1,474.50	1,397.00	1,275.00	1,262.00	1,091.00
			KRW	1,802,999	1,757,751	1,721,663	1,610,453	1,611,574	1,410,554
		Average	USD	1,591.15	1,539.93	1,437.67	1,356.82	1,312.71	1,183.00
			KRW	1,899,869	1,846,299	1,753,698	1,670,154	1,667,613	1,507,580
	Volume (shares)	High (day)		95,468	54,976	36,849	23,557	27,528	32,345
		Low (day)		5,128	8,464	7,828	5,781	6,296	7,382
		Month		587,147	420,313	459,185	269,043	290,837	298,591

Stock price in KRW is based on the closing exchange rate of the applicable trading day.

High and low price in KRW are based on the KRW/USD closing exchange rate of the applicable trading day; average price in KRW is based on monthly average KRW/USD exchange rate.

Conversion ratio between GDRs and original shares is 1:25.

□ Name of stock exchange: Luxembourg Stock Exchange (preferred stock)

Type			Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	
Preferred stock	Price per GDR	High	USD	1,532.00	1,440.00	1,390.00	1,294.00	1,226.00	1,200.00
			KRW	1,831,046	1,722,240	1,671,753	1,573,633	1,540,959	1,494,960
		Low	USD	1,372.00	1,344.00	1,250.00	1,136.00	1,118.00	1,004.00
			KRW	1,649,693	1,602,182	1,548,250	1,418,069	1,427,686	1,300,883
		Average	USD	1,461.90	1,402.10	1,308.00	1,228.11	1,176.00	1,087.70
			KRW	1,745,542	1,681,053	1,595,519	1,511,720	1,493,937	1,386,132
	Volume (shares)	High (day)		7,183	6,183	7,596	6,427	1,561	3,502
		Low (day)		363	428	276	543	377	375
		Month		38,513	28,137	30,489	36,208	19,420	24,625

Stock price in KRW is based on the closing exchange rate of the applicable trading day.

High and low price in KRW are based on the KRW/USD closing exchange rate of the applicable trading day; average price in KRW is based on monthly average KRW/USD exchange rate.

Conversion ratio between GDRs and original shares is 1:25.

VIII. Executives and Employees

1. Executives and employees

A. Registered Executives

[As of June 30, 2022]

(Shares)

Name	Gender	Date of birth	Position	Registered Executive	Full/part-time	Responsibility	Major career	Number of shares owned ¹⁾		Relationship with the major shareholder ²⁾	Length of service (months)	Term expiration
								Common	Preferred			
Jong-hee Han	M	Mar 1962	Vice Chairman	Executive Director	Full	- CEO (head of the DX Division)	- Bachelor's degree in Electronic Engineering from Inha University - Head of DX Division	15,000	-	Executive Member of an Affiliate	28	Mar 17, 2023
Kye-hyun Kyung	M	Mar 1963	President	Executive Director	Full	- CEO (head of the DS Division)	- Doctor's degree in Control and Measurement Engineering from Seoul National University - Head of DS Division	18,050	-	Executive Member of an Affiliate	4	Mar 15, 2025
Tae-moon Roh	M	Sep 1968	President	Executive Director	Full	- Head of MX Business	- Doctor's degree in Electrical Engineering from Pohang University of Science and Technology - Head of MX Business	13,000	-	Executive member of an Affiliate	4	Mar 15, 2025
Hark-kyu Park	M	Nov 1964	President	Executive Director	Full	- CFO	- Master's degree in Business and Technology Management from Korea Advanced Institute of Science and Technology - Head of Corporate Management Office	18,000	-	Executive member of an Affiliate	4	Mar 15, 2025
Jung-bae Lee	M	Feb 1967	President	Executive Director	Full	- Head of Memory Business	- Doctor's degree in Electronic Engineering from Seoul National University - Head of Memory Business	15,000	-	Executive member of an Affiliate	4	Mar 15, 2025
Han-jo Kim	M	Jul 1956	Director	Independent Director	Part	- Board Chair - Head of Audit Committee - Related Party Transactions Committee Member - Compensation Committee Member - Head of Sustainability Committee	- Bachelor's degree in French language and Literature from Yonsei University - Chairman of Hana Foundation	3,655	-	Executive member of an Affiliate	40	Mar 19, 2025
Sun-uk Kim	F	Dec 1952	Director	Independent Director	Part	- Audit Committee Member - Head of the Related Party Transactions Committee - Sustainability Committee Member	- Doctor's degree in Administrative Law from University of Konstanz - Professor Emeritus at Ewha Womans University	-	-	Executive member of an Affiliate	52	Mar 22, 2024
Jeong Kim	M	Aug 1960	Director	Independent Director	Part	- Audit Committee Member - Related Party Transactions Committee Member - Head of Independent	- Doctor's degree in Reliability Engineering from the University of Maryland - President of Kiswe Mobile	-	-	Executive member of an Affiliate	52	Mar 22, 2024

						Director Recommendation Committee -Sustainability Committee Member						
Jun-sung Kim	M	Oct 1967	Director	Independent Director	Part	- Compensation Committee Member - Sustainability Committee Member	- Bachelor's degree in Economics & Business Administration from Carnegie Mellon University - Managing Director of Government of Singapore Investment Corporation (GIC) Total Return Group	-	-	Executive member of an Affiliate	4	Mar 15, 2025

1) As of the reporting date; for changes after the reporting date, please refer to 'Ownership status of securities, etc. of executives and major shareholder' published in Korean in DART (<http://dart.fss.or.kr>).

2) In accordance with Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

Feb 15, 2022: Executive Directors Ki-nam Kim, Hyun-suk Kim, and Dong-jin Koh resigned from their positions as CEO; and Executive Director Jong-hee Han was appointed as CEO at the Board meeting.

Mar 16, 2022: Kye-hyun Kyung, Tae-moon Roh, Hark-kyu Park, and Jung-bae Lee were newly appointed as Executive Directors; Wha-jin Han and Jun-sung Kim were newly appointed as Independent Directors; and Han-jo Kim was reappointed as Independent Director at the AGM.

Mar 16, 2022: Ki-nam Kim, Hyun-suk Kim, and Dong-jin Koh resigned from their positions as Executive Director.

Mar 16, 2022: Executive Director Kye-hyun Kyung was appointed as CEO at the Board meeting.

Mar 19, 2022: Terms of Jae-wan Bahk and Curie Ahn as Independent Director expired.

Apr 20, 2022: Wha-jin Han resigned from her position as Independent Director.

Apr 26, 2022: Independent Director Han-jo Kim was appointed as the Head of Audit Committee.

Apr 28, 2022: Independent Director Han-jo Kim was appointed as the Head of Sustainability Committee.

May 17, 2022: Independent Director Byung-gook Park passed away.

Jul 28, 2022: Independent Director Sun-uk Kim was appointed as Independent Director Recommendation Committee member at the Board meeting.

Jul 28, 2022: Independent Director Jeong Kim was appointed as Compensation Committee member at the Board meeting.

Head of Compensation Committee will be appointed at the upcoming committee meeting.

B. Registered Executives with concurrent positions

[As of June 30, 2022]

Concurrent office holder		Company		
Name	Position	Name of company	Position	Period
Jeong Kim	Independent Director	Kiswe Mobile	Chairman	2013–present

C. Employees

[As of June 30, 2022]

(KRW mil)

Division	Gender	Number of employees ¹⁾				Average length of service (years)	Total compensation (KRW mil)	Average compensation per employee ²⁾ (KRW mil)	Non-affiliated ³⁾		
		Regular	Contract-based	Others	Total				Male	Female	Total
DX	M	37,786	331	-	38,117	15.9					
	F	11,581	85	-	11,666	12.8	-	-			
DS	M	49,005	144	-	49,149	10.5	-	-			
	F	18,949	23	-	18,972	10.7	-	-	-	-	-
Gender total	M	86,791	475	-	87,266	12.9	4,641,522	55			
	F	30,530	108	-	30,638	11.5	1,137,602	40			
Total		117,321	583	-	117,904	12.5	5,779,124	51			

Total compensation for 1H22 and average compensation per employee were calculated before income tax and other deductions based on the earned income payment record submitted to the district tax office in accordance with Article 20 of the Income Tax Act.

- 1) Separate basis; represents employees of domestic headquarters in Korea, including employees on leave and excluding 9 registered executives (5 Executive Directors and 4 Independent Directors).
- 2) Calculated based on average number of employees: 113,604 employees (male: 85,232, female: 28,372).
- 3) Pursuant to the reporting guidelines set forth by the FSS of South Korea, non-affiliated employees, reported in the full-year business report, are not included in quarterly and half-year reports.

D. Remuneration of non-registered Executives

[As of June 30, 2022]

(KRW mil)

Classification	Number of employees ¹⁾	Total compensation	Average compensation per employee	Note
Non-registered Executives	917	294,559	319	-

Total compensation for 1H22 and average compensation per employee is calculated based on the earned income payment record (before earned income tax credit) submitted to the district tax office in accordance with Article 20 of the Income Tax Act.

Total compensation for 1H22 includes incentives, and timing of the incentives being paid differ every year.

Average compensation per employee is calculated based on the average of the 919 employees.

- 1) In office as of the reporting date, and non-registered executives whose earned income was not domestic were excluded.

2. Remuneration for Directors

A. Summary on total remuneration

<Remuneration of directors and auditors>

(1) Remuneration approved at the annual general meetings of shareholders

(KRW mil)

	Number of persons ¹⁾	Amount approved at shareholders' meeting ²⁾	Note
Registered Directors	5	-	-
Independent Directors	3	-	-
Audit Committee members or Auditor	3	-	-
Total	11	41,000	-

1) As of the day of AGM, as approved on the occasion

2) Remuneration limit for directors (including those retired) approved at the AGM on March 16, 2022, as per Article 388 of the Commercial Act and our Articles of Incorporation.

(2) Remuneration Paid

[Remuneration paid for directors and auditors]

(KRW mil)

Number of persons ¹⁾	Total amount of remuneration ²⁾	Average remuneration per Director	Note
9	15,165	1,685	-

There are no recognized expenses (compensation expenses) in this term from granting stock options.

Based on the Income Tax Act that incumbent or retired registered directors, independent directors, and members of audit committee in the fiscal year received in accordance with Article 159 of the Financial Investment Services and Capital Markets Act and Article 168 of the Enforcement Decree of the same Act (includes remuneration for Wha-jin Han and Byung-gook Park who vacated their positions as Independent Director during the fiscal year).

1) Based on the number of persons as of the reporting date.

2) Earned income as per Income Tax Act (Article 20: Wage and Salary Income, Article 21: Other Income, Article 22: Retirement income). Includes remuneration that newly appointed or resigned directors received as non-registered executives.

[Remuneration paid, by Director type]

(KRW mil)

	Number of persons ¹⁾	Total amount of remuneration ²⁾	Average remuneration per Director
Registered Directors (excluding Independent Directors and Audit Committee members)	5	14,629	2,926
Independent Directors (excluding Audit Committee members)	1	215	215
Audit Committee members	3	321	107
Auditor	-	-	-

There are no recognized expenses (compensation expenses) in this term from granting stock options.

Based on the Income Tax Act that incumbent or retired registered directors, independent directors, and members of audit committee in the fiscal year received in accordance with Article 159 of the Financial Investment Services and Capital Markets Act and Article 168 of the Enforcement Decree of the same Act (includes remuneration for Wha-jin Han and Byung-gook Park who vacated their positions as Independent Director during the fiscal year). Remuneration for Independent Director Jeong Kim appointed as Audit Committee member at the AGM on March 16, 2022 was included in the total amount of remuneration for Audit Committee members.

1) Based on the number of persons as of the reporting date.

2) Earned income as per Income Tax Act (Article 20: Wage and Salary Income, Article 21: Other Income, Article 22: Retirement income). Includes remuneration that newly appointed or resigned directors received as non-registered executives.

(3) Criteria and methodology

Remuneration of directors is paid in accordance with internal regulations for Executive treatment and Independent Director treatment within the remuneration limit approved at the AGM.

Type	Criteria and methodology
Registered Directors (excluding Independent Directors and Audit Committee members)	<ul style="list-style-type: none"> • Salary: In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on position, responsibilities, and performance results. • Traditional holiday bonus: 100% of monthly wage • Target achievement incentive: Paid on biannual basis within the range of 0–200% of monthly wage, and CEO decides the amount according to the level of target achieved. (Adjusted according to division performance.) • Performance incentive: Paid once a year within 0–50% of salary based on the compensation resources calculated according to financial factors such as profit after tax (\pm assessed considerations) and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance.) • Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. • Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
Independent Directors (excluding Audit Committee members)	<ul style="list-style-type: none"> • Salary: In accordance with internal regulations for independent director treatment, remuneration is determined based on responsibilities, etc. • Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for independent director treatment
Audit Committee members	<ul style="list-style-type: none"> • Salary: In accordance with internal regulations for independent director treatment, remuneration is determined based on responsibilities, etc. • Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for independent director treatment

<Remuneration for individual Directors and Auditors who are paid KRW 500 million or more >

(1) Summary on Remuneration by Executive

(KRW mil)

Name	Position	Total amount of remuneration	Remuneration not included in total amount
Jong-hee Han	CEO	2,072	-
Kye-hyun Kyung	CEO	990	-
Tae-moon Roh	Executive Director	1,723	-
Hark-kyu Park	Executive Director	777	-
Jung-bae Lee	Executive Director	1,112	-
Ki-nam Kim	Chairman (former CEO)	3,264	-
Hyun-suk Kim	Senior Advisor (former CEO)	2,078	-
Dong-jin Koh	Senior Advisor (former CEO)	2,612	-

Based on the Income Tax Act that incumbent or retired registered directors, independent directors, and members of audit committee in the fiscal year received in accordance with Article 159 of the Financial Investment Services and Capital Markets Act and Article 168 of the Enforcement Decree of the same Act.

Earned income as per Income Tax Act (Article 20: Wage and Salary Income, Article 21: Other Income, Article 22: Retirement income). Includes remuneration that directors who were newly appointed or resigned during the fiscal year received as non-registered executives.

(2) Criteria and methodology

(KRW mil)

Name	Type of remuneration	Total amount	Criteria and methodology
Jong-hee Han (CEO)	Salary	626	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on position (vice chairman), responsibilities, and performance results. He was paid KRW 77 million per month from January to February, KRW 170 million in March, and KRW 101 million per month from April to June.
	Bonus	1,415	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Performance incentive: Paid once a year within 0–50% of salary based on the compensation resources calculated according to financial factors such as profit after tax and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance; retroactive) - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved a ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% over 2017–2019; and that the CE division achieved revenue of KRW 55.83 trillion and operating profit of KRW 3.65 trillion in 2021. Qualitative indicators include spearheading solid growth, including maintaining the top position in the TV market for a 16th consecutive year with MICRO LED, Lifestyle TV, and other innovative products, despite a challenging management environment. The amount of the bonus was determined based on the indicators listed above.
	Profit from exercising stock option	-	n/a
	Other Income	31	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a
	Other Income	-	n/a

(KRW mil)

Name	Type of remuneration		Total amount	Criteria and methodology
Kye-hyun Kyung (CEO)	Earned Income	Salary	524	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on position (president), responsibilities, and performance results. He was paid KRW 53 million per month from January to February, KRW 170 million in March, and KRW 83 million per month from April to June.
		Bonus	434	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved a ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% over 2017–2019. Qualitative indicators include his contributions to becoming the top company in terms of revenue in flash memory for a 20th consecutive year by boosting product competitiveness of solution and flash products, including SSD and eMMC. The amount of the bonus was determined based on the indicators listed above.
		Profit from exercising stock option	-	n/a
		Other Income	32	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a	
	Other Income	-	n/a	

(KRW mil)

Name	Type of remuneration		Total amount	Criteria and methodology
Tae-moon Roh (Director)	Earned Income	Salary	578	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on his position (president), responsibilities, and performance results. He was paid KRW 82 million per month from January to February, 131 million in March and 94 million per month from April to June.
		Bonus	1,120	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Performance incentive: Paid once a year within 0–50% of salary based on the compensation resources calculated according to financial factors such as profit after tax and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance; retroactive) - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% in 2017–2019; and that the IM division achieved revenue of KRW 109.25 trillion and operating profit of KRW 13.65 trillion in 2021. Qualitative indicators include his contributions to technological innovations in mobile, including Galaxy S series and foldable phones, timely response to wearables and notebook demand, and improved profitability, such as stronger sales of premium products. The amount of bonus was determined based on the indicators listed above.
		Profit from exercising stock option	-	n/a
		Other Income	25	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a	

	Other Income	-	n/a
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(KRW mil)

Name	Type of remuneration		Total amount	Criteria and methodology
Hark-kyu Park (Director)	Earned Income	Salary	448	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on his position (president), responsibilities, and performance results. He was paid KRW 67 million per month from January to February, KRW 94 million in March and KRW 74 million per month from April to June.
		Bonus	265	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Performance incentive: Paid once a year within 0–50% of salary based on the compensation resources calculated according to financial factors such as profit after tax and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance; retroactive) - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% in 2017–2019; and that the Company achieved revenue of KRW 279.60 trillion and operating profit of KRW 51.63 trillion in 2021. Qualitative indicators include driving solid performance improvement through preemptive management of business risks and advanced operation of resources; and solidifying the foundation for sustainability management via strategic investment in emerging technologies and via strengthening ESG activities. The amount of bonus was determined based on the indicators listed above.
		Profit from exercising stock option	-	n/a
		Other Income	64	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a	
	Other Income	-	n/a	

(KRW mil)

Name	Type of remuneration		Total amount	Criteria and methodology
Jung-bae Lee (Director)	Earned Income	Salary	427	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on his position (president), responsibilities, and performance results. He was paid KRW 55 million per month from January to February, KRW 110 million in March and KRW 69 million per month from April to June.
		Bonus	633	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Performance incentive: Paid once a year within 0–50% of salary based on the compensation resources calculated according to financial factors such as profit after tax and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance; retroactive) - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% in 2017–2019; and that the DS division achieved revenue of KRW 125.09 trillion and operating profit of KRW 33.73 trillion in 2021. Qualitative indicators include contributing to Company achievements such as being the top company in terms of market share in DRAM for a 30th consecutive year and in flash memory for a 20th consecutive year by securing product

Name	Type of remuneration		Total amount	Criteria and methodology
				competitiveness, including 10-nano-range DRAM and 6th generation V-NAND; as well as spearheading the Company's successful efforts to regain the title of No.1 global semiconductor revenue in 2021. The amount of bonus was determined based on the indicators listed above.
		Profit from exercising stock option	-	n/a
		Other Income	52	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income		-	n/a
	Other Income		-	n/a

(KRW mil)

Name	Type of remuneration		Total amount	Criteria and methodology
Ki-nam Kim	Earned Income	Salary	862	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on position (chairman), responsibilities, and performance results. He was paid KRW 144 million per month from January to June.
		Bonus	2,335	- Traditional holiday bonus: 100% of monthly wage - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved a ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% over 2017–2019. Qualitative indicators include maintaining leadership in the memory market and enhancing competitiveness in the future via active investments in the non-memory business, including System LSI and Foundry. The amount of the bonus was determined based on the indicators listed above.
		Profit from exercising stock option	-	n/a
		Other Income	67	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income		-	n/a
	Other Income		-	n/a

(KRW mil)

Name	Type of remuneration		Total amount	Criteria and methodology
Hyun-suk Kim	Earned Income	Salary	439	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on his position (president-level), responsibilities, and performance results. He was paid KRW 73 million per month from January to June.
		Bonus	1,622	- Traditional holiday bonus: 100% of monthly wage - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% in 2017–2019. Qualitative indicators include solidification of leadership in the market with innovative products, including expanding the lineup of Lifestyle TVs and Bespoke home appliances, amid intensified

			competitive environment in the consumer electronics industry; and contributions to establishing solid profit structure via improvement in operational structure. The amount of bonus was determined based on the indicators listed above.
	Profit from exercising stock option	-	n/a
	Other Income	17	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a
	Other Income	-	n/a

(KRW mil)

Name	Type of remuneration	Total amount	Criteria and methodology
Dong-jin Koh	Salary	468	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on his position (president-level), responsibilities, and performance results. He was paid KRW 78 million per month from January to June.
	Bonus	2,126	- Traditional holiday bonus: 100% of monthly wage - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% in 2017–2019. Qualitative indicators include leading the market with technological innovations in mobile, including Galaxy S21, foldable phones, etc. and contributions to securing next-generation communications technologies. The amount of bonus was determined based on the indicators listed above.
	Profit from exercising stock option	-	n/a
	Other Income	18	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a
	Other Income	-	n/a

< Remuneration for five highest-paid Executive Directors who are paid KRW 500 million or more >

(1) Summary on remuneration by Executive

(KRW mil)

Name	position	Total amount of remuneration	Remuneration not included in total amount
Ki-nam Kim	Chairman	3,264	-
Oh-hyun Kwon	Senior Advisor	3,122	-
Boo-keun Yoon	Senior Advisor	2,614	-
Dong-jin Koh	Senior Advisor	2,612	-
Jong-kyun Shin	Senior Advisor	2,606	-

Earned income as per Income Tax Act (Article 20: Wage and Salary Income, Article 21: Other Income, Article 22: Retirement income).

(2) Criteria and methodology

(KRW mil)

Name	Type of remuneration		Total amount	Criteria and methodology
Ki-nam Kim	Earned Income	Salary	862	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on position (chairman), responsibilities, and performance results. He was paid KRW 144 million per month from January to June.
		Bonus	2,335	- Traditional holiday bonus: 100% of monthly wage - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved a ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% over 2017–2019. Qualitative indicators include maintaining leadership in the memory market and enhancing competitiveness in the future via active investments in the non-memory business, including System LSI and Foundry. The amount of the bonus was determined based on the indicators listed above.
		Profit from exercising stock option	-	n/a
		Other Income	67	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a	
	Other Income	-	n/a	

(KRW mil)

Name	Type of remuneration		Total amount	Criteria and methodology
Oh-hyun Kwon	Earned Income	Salary	375	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on position (chairman-level), responsibilities, and performance results. He was paid KRW 63 million per month from January to June.
		Bonus	2,735	- Traditional holiday bonus: 100% of monthly wage - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved a ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% over 2017–2019. Qualitative indicators include presenting mid- to long-term business direction and nurturing the next generation executives. The amount of the bonus was determined based on the indicators listed above.
		Profit from exercising stock option	-	n/a
		Other Income	12	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a	
	Other Income	-	n/a	

(KRW mil)

Name	Type of remuneration	Total amount	Criteria and methodology	
Boo-keun Yoon	Earned Income	Salary	311	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on position (vice chairman-level), responsibilities, and performance results. He was paid KRW 52 million per month from January to June.
		Bonus	2,269	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved a ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% over 2017–2019. Qualitative indicators include providing direction for emerging technologies and mid- to long-term businesses for CE and identifying external risks on the business. The amount of the bonus was determined based on the indicators listed above.
		Profit from exercising stock option	-	n/a
		Other Income	34	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a	
	Other Income	-	n/a	

(KRW mil)

Name	Type of remuneration	Total amount	Criteria and methodology	
Dong-jin Koh	Earned Income	Salary	468	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on his position (president-level), responsibilities, and performance results. He was paid KRW 78 million per month from January to June.
		Bonus	2,126	<ul style="list-style-type: none"> - Traditional holiday bonus: 100% of monthly wage - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% in 2017–2019. Qualitative indicators include leading the market with technological innovations in mobile, including Galaxy S21, foldable phones, etc. and contributions to securing next-generation communications technologies. The amount of bonus was determined based on the indicators listed above.
		Profit from exercising stock option	-	n/a
		Other Income	18	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a	
	Other Income	-	n/a	

(KRW mil)

Name	Type of remuneration	Total amount	Criteria and methodology
Jong-kyun Shin	Salary	311	In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on position (vice chairman-level), responsibilities, and performance results. He was paid KRW 52 million per month from January to June.
	Bonus	2,269	- Traditional holiday bonus: 100% of monthly wage - Long-term incentive: Calculated within the director remuneration limit, based on the average salary of 3 years, using ROE, stock performance, and EBIT margin as criteria. Paid over the course of 3 years. ※ Quantitative indicators suggest that the Company achieved ROE of 15.7%, EBIT margin of 20.7%, and stock performance of 54.8% in 2017–2019. Qualitative indicators include providing direction for emerging technologies and mid- to long-term businesses for IM, passing on management insights, and enhancing human resource by nurturing the next generation executives. The amount of bonus was determined based on the indicators listed above.
	Profit from exercising stock option	-	n/a
	Other Income	26	- Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a
	Other Income	-	n/a

B. Stock options granted and exercised

As of June 30, 2022, there were no accumulated-basis unexercised stock options granted to registered Directors, auditors, or people who instruct another person to conduct business.

(KRW mil)

Type	Number ¹⁾	Total fair value of stock options	Note
Registered Director	5	-	-
Independent Director	1	-	-
Audit Committee member or auditor	3	-	-
Person who instructs another person to conduct business	1,101	-	-
Total	1,110	-	-

1) Based on the number of persons as of the reporting date.

IX. Affiliates and Subsidiaries

1. Affiliates & subsidiaries

A. Affiliates

As of June 30, 2022, Samsung Group had a total of sixty-one (61) domestic affiliates. Among the Samsung Group's sixty-one (61) domestic affiliates, sixteen (16) affiliates including Samsung Electronics are listed, and forty-five (45) affiliates are unlisted.

[As of June 30, 2022]

Name of affiliated group	No. of Affiliates		
	Listed	Unlisted	Total
Samsung	16	45	61

B. Ownership status of affiliates and subsidiaries

1) Domestic

Investee Investor	Samsung C&T Corp	Samsung BioLogics	Samsung Life Insurance	Samsung SDI	Samsung SDS	Samsung Engineering	Samsung Electro-mechanics	Samsung Electronics	Samsung Heavy Industries	Samsung Securities	Samsung Card	Samsung Fire & Marine Insurance	MULTI CAMPUS	S1 Corporation	Cheil Worldwide
Samsung C&T Corporation		43.1	19.3		17.1	7.0		5.0	0.1						
Samsung BioLogics															
Samsung Life Insurance	0.1	0.1		0.1	0.0	0.1	0.1	8.7	3.0	29.4	71.9	15.0	0.0	5.4	0.3
Samsung SDI						11.7			0.4					11.0	
Samsung SDS													47.2		
Samsung Electro-mechanics									2.1						
Samsung Electronics		31.2		19.6	22.6		23.7		15.2						25.2
Samsung Heavy Industries															
Samsung Securities														1.3	
Samsung Card														1.9	3.0
Samsung Fire & Marine Insurance						0.2		1.5						1.0	
S1 Corporation															
Cheil Worldwide									0.1						
Hotel Shilla															
Samsung Display															
Samsung Asset Management															
Samsung Electronics Service															
Miracom															
Samsung Global Research													15.2		
Harman International Industries, Inc.															
Total	0.1	74.3	19.3	19.7	39.7	19.0	23.8	15.2	20.8	29.4	71.9	15.0	62.4	20.7	28.6

※ Percent of ownership as of June 30, 2022 based on common shares

Investee Investor	Hotel Shilla	Samsung Display	Samsung Medison	Samsung BioEpis	Samsung Venture Investment	Samsung Life Service	Samsung Futures	Samsung Active Asset Management	Samsung SRA Asset Management	Samsung Welstory	Samsung Asset Management	Samsung Electronics Logitech	Samsung Electronics Service	Samsung Electronics Service CS	Samsung Electronics Sales	
Samsung C&T Corporation					16.7					100.0						
Samsung BioLogics				100.0												
Samsung Life Insurance	7.4					99.8			100.0		100.0					
Samsung SDI	0.1	15.2			16.3											
Samsung SDS																
Samsung Electro-mechanics					17.0											
Samsung Electronics	5.1	84.8	68.5		16.3							100.0	99.3		100.0	
Samsung Heavy Industries					17.0											
Samsung Securities	3.1				16.7		100.0									
Samsung Card	1.3															
Samsung Fire & Marine Insurance																
S1 Corporation																
Cheil Worldwide																
Hotel Shilla																
Samsung Display																
Samsung Asset Management								100.0								
Samsung Electronics Service														100.0		
Miracom																
Samsung Global Research																
Harman International Industries, Inc.																
Total	17.0	100.0	68.5	100.0	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.3	100.0	100.0

※ Percent of ownership as of June 30, 2022 based on common shares

Investee Investor	Samsung Card Customer Service	Samsung Corning Advanced Glass	Samsung Hedge Asset Management	Samsung Fire & Marine Insurance Service	Samsung Claim Adjustment Service	SEMES	Suwon Samsung Bluewings FC	STECO	Shilla HM	SD Flex	SBTM	S-1CRM	SU Materials	S-Core	STM
Samsung C&T Corporation															
Samsung BioLogics															
Samsung Life Insurance															
Samsung SDI										50.0					100.0
Samsung SDS														81.8	
Samsung Electro-mechanics															
Samsung Electronics						91.5		70.0							
Samsung Heavy Industries															
Samsung Securities															
Samsung Card	100.0														
Samsung Fire & Marine Insurance				100.0	100.0										
S1 Corporation												100.0		0.6	
Cheil Worldwide							100.0							5.2	
Hotel Shilla									100.0		100.0				
Samsung Display		50.0											50.0		
Samsung Asset Management			100.0												
Samsung Electronics Service															
Miracom														0.5	
Samsung Global Research															
Harman International Industries, Inc.															
Total	100.0	50.0	100.0	100.0	100.0	91.5	100.0	70.0	100.0	50.0	100.0	100.0	50.0	88.1	100.0

※ Percent of ownership as of June 30, 2022 based on common shares

Investee Investor	HDC Shilla Duty Free LTD	Open Hands	Cheil Fashion Retail	Miracom	Samsung Global Research	Samsung Lions	Samsung Life Financial Service	Samsung Fire & Marine Financial Service	Samwoo Architects & Engineers	Seoul Lakeside CC	SECUI	CVnet	SHP Corporation	Harman International Korea	Human TSS
Samsung C&T Corporation			100.0		1.0				100.0	100.0	8.7	40.1			
Samsung BioLogics															
Samsung Life Insurance					14.8		100.0								
Samsung SDI					29.6										
Samsung SDS		100.0		83.6							56.5	9.4			
Samsung Electro-mechanics					23.8										
Samsung Electronics					29.8										
Samsung Heavy Industries					1.0										
Samsung Securities															
Samsung Card															
Samsung Fire & Marine Insurance								100.0							
S1 Corporation				0.6											100.0
Cheil Worldwide				5.4		67.5									
Hotel Shilla	50.0												100.0		
Samsung Display															
Samsung Asset Management															
Samsung Electronics Service															
Miracom															
Samsung Global Research															
Harman International Industries, Inc.														100.0	
Total	50.0	100.0	100.0	89.6	100.0	67.5	100.0	100.0	100.0	100.0	65.2	49.5	100.0	100.0	100.0

※ Percent of ownership as of June 30, 2022 based on common shares

2) Overseas

Investor	Investee	Ownership
Samwoo Architects & Engineers	SAMOO AUSTIN INC	100.0
Samwoo Architects & Engineers	SAMOO HU Designer and Engineering Services Limited	100.0
Samwoo Architects & Engineers	SAMOO DESIGNERS & ENGINEERS INDIA PRIVATE LIMITED	100.0
Samwoo Architects & Engineers	SAMOO (KL) SDN. BHD.	100.0
Samwoo Architects & Engineers	SAMOO Design Consulting Co.,Ltd	100.0
Samsung C&T America Inc.	Meadowland Distribution	100.0
Samsung C&T America Inc.	Samsung Green repower, LLC	100.0
Samsung C&T America Inc.	Samsung Solar Construction Inc.	100.0
Samsung C&T America Inc.	QSSC, S.A. de C.V.	20.0
Samsung C&T America Inc.	Samsung Solar Energy LLC	100.0
Samsung C&T America Inc.	Equipment Trading Solutions Group, LLC	70.0
Samsung C&T America Inc.	FLOWFY COMMERCE SERVICE LLC	100.0
Samsung Renewable Energy Inc.	SP Armow Wind Ontario LP	50.0
Samsung Renewable Energy Inc.	SRE GRW EPC GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE GRW EPC LP	100.0
Samsung Renewable Energy Inc.	SRE SKW EPC GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE SKW EPC LP	100.0
Samsung Renewable Energy Inc.	SRE WIND PA GP INC.	100.0
Samsung Renewable Energy Inc.	SRE WIND PA LP	100.0
Samsung Renewable Energy Inc.	SRE GRS Holdings GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE GRS Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE K2 EPC GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE K2 EPC LP	100.0
Samsung Renewable Energy Inc.	SRE KS HOLDINGS GP INC.	100.0
Samsung Renewable Energy Inc.	SRE KS HOLDINGS LP	100.0
Samsung Renewable Energy Inc.	SP Belle River Wind LP	42.5
Samsung Renewable Energy Inc.	SRE Armow EPC GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Armow EPC LP	100.0
Samsung Renewable Energy Inc.	North Kent Wind 1 LP	35.0
Samsung Renewable Energy Inc.	SRE Wind GP Holding Inc.	100.0
Samsung Renewable Energy Inc.	South Kent Wind LP Inc.	50.0
Samsung Renewable Energy Inc.	Grand Renewable Wind LP Inc.	45.0
Samsung Renewable Energy Inc.	SRE North Kent 2 LP Holdings LP	100.0
Samsung Renewable Energy Inc.	SRE Solar Development GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Solar Development LP	100.0
Samsung Renewable Energy Inc.	SRE Windsor Holdings GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Southgate Holdings GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Solar Construction Management GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Solar Construction Management LP	100.0
Samsung Renewable Energy Inc.	SRE BRW EPC GP INC.	100.0
Samsung Renewable Energy Inc.	SRE BRW EPC LP	100.0
Samsung Renewable Energy Inc.	SRE North Kent 1 GP Holdings Inc	100.0
Samsung Renewable Energy Inc.	SRE North Kent 2 GP Holdings Inc	100.0
Samsung Renewable Energy Inc.	SRE Belle River GP Holdings Inc	100.0
Samsung Renewable Energy Inc.	SRE NK1 EPC GP Inc	100.0
Samsung Renewable Energy Inc.	SRE NK1 EPC LP	100.0
Samsung Renewable Energy Inc.	SRE Summerside Construction GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Summerside Construction LP	100.0
Samsung Green repower, LLC	Monument Power, LLC	100.0
SP Armow Wind Ontario GP Inc	SP Armow Wind Ontario LP	0.0
Samsung C&T Oil & Gas Parallel Corp.	PLL Holdings LLC	83.6
Samsung C&T Oil & Gas Parallel Corp.	PLL E&P LLC	90.0
SRE GRW EPC GP Inc.	SRE GRW EPC LP	0.0

Investor	Investee	Ownership
SRE SKW EPC GP Inc.	SRE SKW EPC LP	0.0
PLL Holdings LLC	Parallel Petroleum LLC	61.0
SRE WIND PA GP INC.	SRE WIND PA LP	0.0
SRE GRS Holdings GP Inc.	Grand Renewable Solar GP Inc.	50.0
SRE GRS Holdings GP Inc.	SRE GRS Holdings LP	0.0
SRE K2 EPC GP Inc.	SRE K2 EPC LP	0.0
SRE KS HOLDINGS GP INC.	KINGSTON SOLAR GP INC.	50.0
SRE KS HOLDINGS GP INC.	SRE KS HOLDINGS LP	0.0
SP Belle River Wind GP Inc	SP Belle River Wind LP	0.0
SRE Armow EPC GP Inc.	SRE Armow EPC LP	0.0
SRE Wind GP Holding Inc.	SP Armow Wind Ontario GP Inc	50.0
SRE Wind GP Holding Inc.	South Kent Wind GP Inc.	50.0
SRE Wind GP Holding Inc.	Grand Renewable Wind GP Inc.	50.0
South Kent Wind GP Inc.	South Kent Wind LP Inc.	0.0
Grand Renewable Wind GP Inc.	Grand Renewable Wind LP Inc.	0.0
North Kent Wind 1 GP Inc	North Kent Wind 1 LP	0.0
SRE Solar Development GP Inc.	SRE Solar Development LP	0.0
SRE Solar Construction Management GP Inc.	SRE Solar Construction Management LP	0.0
SRE BRW EPC GP INC.	SRE BRW EPC LP	0.0
SRE North Kent 1 GP Holdings Inc	North Kent Wind 1 GP Inc	50.0
SRE North Kent 2 GP Holdings Inc	SRE North Kent 2 LP Holdings LP	0.0
SRE Belle River GP Holdings Inc	SP Belle River Wind GP Inc	50.0
SRE NK1 EPC GP Inc	SRE NK1 EPC LP	0.0
SRE Summerside Construction GP Inc.	SRE Summerside Construction LP	0.0
Samsung Solar Energy LLC	Samsung Solar Energy 1 LLC	100.0
Samsung Solar Energy LLC	Samsung Solar Energy 2 LLC	100.0
Samsung Solar Energy LLC	Samsung Solar Energy 3, LLC	100.0
Samsung Solar Energy 1 LLC	CS SOLAR LLC	50.0
Samsung Solar Energy 3, LLC	SST SOLAR, LLC	50.0
Samsung C&T Deutschland GmbH	SungEel Recycling Park Thüringen GmbH	100.0
Samsung C&T Deutschland GmbH	POSS-SLPC, S.R.O	20.0
Samsung C&T Deutschland GmbH	Solluce Romania 1 B.V.	20.0
Samsung C&T Deutschland GmbH	S.C. Otelinox S.A	99.7
Samsung C&T Malaysia SDN. BHD	WARIS GIGIH ENGINEERING AND TECHNOLOGY SDN. BHD.	70.0
Samsung C&T Singapore Pte., Ltd.	Samsung Chemtech Vina LLC	48.3
Samsung C&T Singapore Pte., Ltd.	Samsung C&T Thailand Co., Ltd	0.2
Samsung C&T Singapore Pte., Ltd.	PT. INSAM BATUBARA ENERGY	65.2
Samsung C&T Singapore Pte., Ltd.	Malaysia Samsung Steel Center Sdn.Bhd	30.0
Samsung C&T Singapore Pte., Ltd.	S&G Biofuel PTE.LTD	12.6
S&G Biofuel PTE.LTD	PT. Gandaerah Hendana	95.0
S&G Biofuel PTE.LTD	PT. Inecda	95.0
Vista Contracting and Investment Global Pte. Ltd.	VISTA CONTRACTING AND DEVELOPMENT BANGLADESH LTD.	100.0
CHEIL HOLDING INC.	SAMSUNG CONST. CO. PHILS.	75.0
Samsung C&T Hongkong Ltd.	Samsung C&T Thailand Co., Ltd	6.8
Samsung C&T Hongkong Ltd.	SAMSUNG TRADING (SHANGHAI) CO., LTD	100.0
Samsung C&T Hongkong Ltd.	Samsung Precision Stainless Steel(pinghu) Co.,Ltd.	45.0
Samsung Electronics	Samsung Japan Corporation	100.0
Samsung Electronics	Samsung R&D Institute Japan Co. Ltd.	100.0
Samsung Electronics	Samsung Electronics America, Inc.	100.0
Samsung Electronics	Samsung Electronics Canada, Inc.	100.0
Samsung Electronics	Samsung Electronics Mexico S.A. De C.V.	63.6
Samsung Electronics	Samsung Electronics Ltd.	100.0
Samsung Electronics	Samsung Electronics (UK) Ltd.	100.0
Samsung Electronics	Samsung Electronics Holding GmbH	100.0
Samsung Electronics	Samsung Electronics Iberia, S.A.	100.0

Investor	Investee	Ownership
Samsung Electronics	Samsung Electronics France S.A.S	100.0
Samsung Electronics	Samsung Electronics Hungarian Private Co. Ltd.	100.0
Samsung Electronics	Samsung Electronics Italia S.P.A.	100.0
Samsung Electronics	Samsung Electronics Europe Logistics B.V.	100.0
Samsung Electronics	Samsung Electronics Benelux B.V.	100.0
Samsung Electronics	Samsung Electronics Overseas B.V.	100.0
Samsung Electronics	Samsung Electronics Polska, SP.Zo.o	100.0
Samsung Electronics	Samsung Electronics Portuguesa, Unipessoal, Lda.	100.0
Samsung Electronics	Samsung Electronics Nordic Aktiebolag	100.0
Samsung Electronics	Samsung Electronics Austria GmbH	100.0
Samsung Electronics	Samsung Electronics Slovakia s.r.o	55.7
Samsung Electronics	Samsung Electronics Europe Holding Cooperatief U.A.	100.0
Samsung Electronics	Samsung Electronics Display (M) Sdn. Bhd.	75.0
Samsung Electronics	Samsung Electronics (M) Sdn. Bhd.	100.0
Samsung Electronics	Samsung Vina Electronics Co., Ltd.	100.0
Samsung Electronics	Samsung Asia Pte. Ltd.	100.0
Samsung Electronics	Samsung India Electronics Private Ltd.	100.0
Samsung Electronics	Samsung R&D Institute India-Bangalore Private Limited	100.0
Samsung Electronics	Samsung Electronics Australia Pty. Ltd.	100.0
Samsung Electronics	PT Samsung Electronics Indonesia	100.0
Samsung Electronics	Thai Samsung Electronics Co., Ltd.	91.8
Samsung Electronics	Samsung Malaysia Electronics (SME) Sdn. Bhd.	100.0
Samsung Electronics	Samsung Electronics Hong Kong Co., Ltd.	100.0
Samsung Electronics	Suzhou Samsung Electronics Co., Ltd.	69.1
Samsung Electronics	Samsung (CHINA) Investment Co., Ltd.	100.0
Samsung Electronics	Samsung Electronics Suzhou Semiconductor Co., Ltd.	100.0
Samsung Electronics	Tianjin Samsung Electronics Co., Ltd.	48.2
Samsung Electronics	Samsung Electronics Taiwan Co., Ltd.	100.0
Samsung Electronics	Tianjin Samsung Telecom Technology Co., Ltd.	90.0
Samsung Electronics	Shanghai Samsung Semiconductor Co., Ltd.	100.0
Samsung Electronics	Samsung Electronics Suzhou Computer Co., Ltd.	73.7
Samsung Electronics	Samsung Semiconductor (China) R&D Co., Ltd.	100.0
Samsung Electronics	Samsung (China) Semiconductor Co., Ltd.	100.0
Samsung Electronics	Samsung SemiConductor Xian Co., Ltd.	100.0
Samsung Electronics	Samsung Gulf Electronics Co., Ltd.	100.0
Samsung Electronics	Samsung Electronics Egypt S.A.E	0.1
Samsung Electronics	Samsung Electronics South Africa(Pty) Ltd.	100.0
Samsung Electronics	Samsung Electronics Latinoamerica(Zona Libre), S. A.	100.0
Samsung Electronics	Samsung Eletronica da Amazonia Ltda.	87.0
Samsung Electronics	Samsung Electronics Argentina S.A.	98.0
Samsung Electronics	Samsung Electronics Chile Limitada	4.1
Samsung Electronics	Samsung Electronics Rus Company LLC	100.0
Samsung Electronics	Samsung Electronics Rus Kaluga LLC	100.0
Samsung Electronics	Tianjin Samsung LED Co., Ltd.	100.0
Samsung Biologics	Samsung Biologics America, Inc.	100.0
Samsung BioEpis	Samsung Bioepis United States Inc.	100.0
Samsung BioEpis	SAMSUNG BIOEPIS UK LIMITED	100.0
Samsung BioEpis	Samsung Bioepis NL B.V.	100.0
Samsung BioEpis	Samsung Bioepis CH GmbH	100.0
Samsung BioEpis	Samsung Bioepis PL Sp z o.o.	100.0
Samsung BioEpis	SAMSUNG BIOEPIS AU PTY LTD	100.0
Samsung BioEpis	SAMSUNG BIOEPIS NZ LIMITED	100.0
Samsung BioEpis	Samsung Bioepis TW Limited	100.0
Samsung BioEpis	Samsung Bioepis HK Limited	100.0
Samsung BioEpis	SAMSUNG BIOEPIS IL LTD	100.0

Investor	Investee	Ownership
Samsung BioEpis	SAMSUNG BIOEPIS BR PHARMACEUTICAL LTDA	100.0
Samsung Display	Intellectual Keystone Technology LLC	41.9
Samsung Display	Samsung Display Slovakia, s.r.o.	100.0
Samsung Display	Samsung Display Vietnam Co., Ltd.	100.0
Samsung Display	Samsung Display Noida Private Limited	100.0
Samsung Display	Samsung Display Dongguan Co., Ltd.	100.0
Samsung Display	Samsung Display Tianjin Co., Ltd.	95.0
Samsung Display	Novald GmbH	9.9
SEMES	SEMES America, Inc.	100.0
SEMES	SEMES (XIAN) Co., Ltd.	100.0
Samsung Electronics America, Inc.	NeuroLogica Corp.	100.0
Samsung Electronics America, Inc.	Dacor Holdings, Inc.	100.0
Samsung Electronics America, Inc.	Samsung HVAC America, LLC	100.0
Samsung Electronics America, Inc.	SmartThings, Inc.	100.0
Samsung Electronics America, Inc.	Samsung Oak Holdings, Inc.	100.0
Samsung Electronics America, Inc.	Joyent, Inc.	100.0
Samsung Electronics America, Inc.	TeleWorld Solutions, Inc.	100.0
Samsung Electronics America, Inc.	Samsung Semiconductor, Inc.	100.0
Samsung Electronics America, Inc.	Samsung Research America, Inc	100.0
Samsung Electronics America, Inc.	Samsung Electronics Home Appliances America, LLC	100.0
Samsung Electronics America, Inc.	Samsung International, Inc.	100.0
Samsung Electronics America, Inc.	Harman International Industries, Inc.	100.0
Dacor Holdings, Inc.	Dacor, Inc.	100.0
Dacor, Inc.	Dacor Canada Co.	100.0
Samsung Semiconductor, Inc.	Samsung Austin Semiconductor LLC.	100.0
Samsung Electronics Canada, Inc.	AdGear Technologies Inc.	100.0
Samsung Research America, Inc	SAMSUNG NEXT LLC	100.0
SAMSUNG NEXT LLC	SAMSUNG NEXT FUND LLC	100.0
Samsung International, Inc.	Samsung Mexicana S.A. de C.V	100.0
Samsung Electronics Mexico S.A. De C.V.	Samsung Electronics Digital Appliance Mexico, SA de CV	100.0
Harman International Industries, Inc.	Harman International Japan Co., Ltd.	100.0
Harman International Industries, Inc.	Harman International Industries Canada Ltd.	100.0
Harman International Industries, Inc.	Harman Becker Automotive Systems, Inc.	100.0
Harman International Industries, Inc.	Harman Professional, Inc.	100.0
Harman International Industries, Inc.	Harman Connected Services, Inc.	100.0
Harman International Industries, Inc.	Harman Financial Group LLC	100.0
Harman International Industries, Inc.	Harman Belgium SA	100.0
Harman International Industries, Inc.	Harman France SNC	100.0
Harman International Industries, Inc.	Red Bend Software SAS	100.0
Harman International Industries, Inc.	Harman Inc. & Co. KG	66.0
Harman International Industries, Inc.	Harman KG Holding, LLC	100.0
Harman International Industries, Inc.	Harman Becker Automotive Systems Italy S.R.L.	100.0
Harman International Industries, Inc.	Harman Finance International, SCA	100.0
Harman International Industries, Inc.	Harman Finance International GP S.a.r.l	100.0
Harman International Industries, Inc.	Harman Industries Holdings Mauritius Ltd.	100.0
Harman International Industries, Inc.	Harman International Mexico, S. de R.L. de C.V.	99.9
Harman Becker Automotive Systems, Inc.	Harman International Estonia OU	100.0
Harman Professional, Inc.	Harman Singapore Pte. Ltd.	100.0
Harman Professional, Inc.	Harman da Amazonia Industria Eletronica e Participacoes Ltda.	0.0
Harman Professional, Inc.	Harman do Brasil Industria Eletronica e Participacoes Ltda.	0.0
Harman Connected Services, Inc.	Harman Connected Services Engineering Corp.	100.0
Harman Connected Services, Inc.	Harman Connected Services AB.	100.0
Harman Connected Services, Inc.	Harman Connected Services UK Ltd.	100.0
Harman Connected Services, Inc.	Harman Connected Services Corp. India Pvt. Ltd.	1.6
Harman Connected Services, Inc.	Global Symphony Technology Group Private Ltd.	100.0

Investor	Investee	Ownership
Harman Financial Group LLC	Harman International (India) Private Limited	0.0
Harman Financial Group LLC	Harman International Mexico, S. de R.L. de C.V.	0.1
Harman Financial Group LLC	Harman de Mexico, S. de R.L. de C.V.	0.0
Samsung Electronics (UK) Ltd.	Samsung Semiconductor Europe Limited	100.0
Samsung Electronics Holding GmbH	Samsung Semiconductor Europe GmbH	100.0
Samsung Electronics Holding GmbH	Samsung Electronics GmbH	100.0
Samsung Electronics Hungarian Private Co. Ltd.	Samsung Electronics Czech and Slovak s.r.o.	31.4
Samsung Electronics Hungarian Private Co. Ltd.	Samsung Electronics Slovakia s.r.o	44.3
Samsung Electronics Benelux B.V.	Samsung Electronics Mexico S.A. De C.V.	36.4
Samsung Electronics Benelux B.V.	SAMSUNG ELECTRONICS BALTICS SIA	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics West Africa Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics East Africa Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Saudi Arabia Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Egypt S.A.E	99.9
Samsung Electronics Benelux B.V.	Samsung Electronics Israel Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Tunisia S.A.R.L	99.0
Samsung Electronics Benelux B.V.	Samsung Electronics Pakistan(Private) Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics South Africa Production (pty) Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Turkey	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Industry and Commerce Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Semiconductor Israel R&D Center, Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Levant Co.,Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Maghreb Arab	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Venezuela, C.A.	100.0
Samsung Electronics Benelux B.V.	Samsung Eletronica da Amazonia Ltda.	13.0
Samsung Electronics Benelux B.V.	Samsung Electronics Chile Limitada	95.9
Samsung Electronics Benelux B.V.	Samsung Electronics Peru S.A.C.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Ukraine Company LLC	100.0
Samsung Electronics Benelux B.V.	Samsung R&D Institute Ukraine	100.0
Samsung Electronics Benelux B.V.	Samsung R&D Institute Rus LLC	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Central Eurasia LLP	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Caucasus Co. Ltd	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Uzbekistan Ltd.	100.0
Samsung Electronics Benelux B.V.	Corephotonics Ltd.	100.0
Samsung Electronics Nordic Aktiebolag	Samsung Nanoradio Design Center	100.0
AKG Acoustics GmbH	Harman Professional Denmark ApS	100.0
AKG Acoustics GmbH	Studer Professional Audio GmbH	100.0
Harman Professional Denmark ApS	Martin Professional Japan Ltd.	40.0
Harman Professional Denmark ApS	Harman International s.r.o	100.0
Harman Becker Automotive Systems GmbH	Harman International Romania SRL	0.0
Harman Holding GmbH & Co. KG	Harman Becker Automotive Systems GmbH	100.0
Harman Holding GmbH & Co. KG	Harman Deutschland GmbH	100.0
Harman Holding GmbH & Co. KG	Harman Becker Automotive Systems Manufacturing Kft	100.0
Harman Holding GmbH & Co. KG	Apostera GmbH	100.0
Harman Holding GmbH & Co. KG	Harman RUS CIS LLC	100.0
Harman Inc. & Co. KG	Harman Holding GmbH & Co. KG	100.0
Harman Inc. & Co. KG	Harman Management GmbH	100.0
Harman Inc. & Co. KG	Harman Hungary Financing Ltd.	100.0
Harman Connected Services GmbH	Harman Connected Services OOO	100.0
Harman KG Holding, LLC	Harman Inc. & Co. KG	34.0
Harman Becker Automotive Systems Manufacturing Kft	Harman Professional Kft	100.0
Harman Becker Automotive Systems Manufacturing Kft	Harman Consumer Nederland B.V.	100.0
Harman Becker Automotive Systems Manufacturing Kft	Harman International Romania SRL	100.0
Harman Becker Automotive Systems Manufacturing Kft	Red Bend Ltd.	100.0
Harman Becker Automotive Systems Manufacturing Kft	Harman do Brasil Industria Eletronica e Participacoes Ltda.	100.0

Investor	Investee	Ownership
Harman Hungary Financing Ltd.	Harman International Industries Limited	100.0
Harman Finance International GP S.a.r.l	Harman Finance International, SCA	0.0
Harman Consumer Nederland B.V.	AKG Acoustics GmbH	100.0
Harman Consumer Nederland B.V.	Harman Audio Iberia España Sociedad Limitada	100.0
Harman Consumer Nederland B.V.	Harman Holding Limited	100.0
Harman Audio Iberia España Sociedad Limitada	Harman France SNC	0.0
Harman Connected Services AB.	Harman Finland Oy	100.0
Harman Connected Services AB.	Harman Connected Services GmbH	100.0
Harman Connected Services AB.	Harman Connected Services Poland Sp.zoo	100.0
Harman Connected Services AB.	Harman Connected Services Solutions (Chengdu) Co., Ltd.	100.0
Harman International Industries Limited	Harman Automotive UK Limited	100.0
Harman International Industries Limited	Harman International Industries PTY Ltd.	100.0
Harman International Industries Limited	Harman de Mexico, S. de R.L. de C.V.	100.0
Harman Connected Services UK Ltd.	Harman Connected Services Morocco	100.0
Apostera GmbH	Apostera UA, LLC	100.0
Samsung Electronics Austria GmbH	Samsung Electronics Switzerland GmbH	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Electronics Czech and Slovak s.r.o.	68.6
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Electronics Romania LLC	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Zhilabs, S.L.	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Porta Nuova Varesine Building 2 S.r.l.	49.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Electronics Poland Manufacturing SP.Zo.o	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Electronics Greece S.M.S.A	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Electronics Air Conditioner Europe B.V.	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	FOODIENT LTD.	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Denmark Research Center ApS	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Samsung Cambridge Solution Centre Limited	100.0
Samsung Electronics Europe Holding Cooperatief U.A.	Novaled GmbH	40.0
Samsung Electronics Singapore Pte. Ltd.	Samsung Electronics Display (M) Sdn. Bhd.	25.0
Samsung Electronics Singapore Pte. Ltd.	iMarket Asia Co., Ltd.	11.4
Samsung Asia Pte. Ltd.	Samsung Electronics Japan Co., Ltd.	100.0
Samsung Asia Pte. Ltd.	Samsung Electronics Singapore Pte. Ltd.	100.0
Samsung Asia Pte. Ltd.	Samsung Electronics New Zealand Limited	100.0
Samsung Asia Pte. Ltd.	Samsung Electronics Philippines Corporation	100.0
Samsung Asia Pte. Ltd.	Samsung R&D Institute Bangladesh Limited	100.0
Samsung Asia Pte. Ltd.	Samsung Electronics Vietnam Co., Ltd.	100.0
Samsung Asia Pte. Ltd.	Samsung Electronics Vietnam THAINGUYEN Co., Ltd.	100.0
Samsung Asia Pte. Ltd.	Samsung Electronics HCMC CE Complex Co., Ltd.	100.0
Samsung India Electronics Private Ltd.	Samsung Nepal Services Pvt, Ltd	100.0
Samsung India Electronics Private Ltd.	Red Brick Lane Marketing Solutions Pvt. Ltd.	100.0
PT Samsung Electronics Indonesia	PT Samsung Telecommunications Indonesia	100.0
Thai Samsung Electronics Co., Ltd.	Laos Samsung Electronics Sole Co., Ltd	100.0
Samsung Electronics Hong Kong Co., Ltd.	iMarket Asia Co., Ltd.	11.3
Suzhou Samsung Electronics Co., Ltd.	Samsung Suzhou Electronics Export Co., Ltd.	100.0
Samsung (CHINA) Investment Co., Ltd.	Suzhou Samsung Electronics Co., Ltd.	19.2
Samsung (CHINA) Investment Co., Ltd.	Samsung Mobile R&D Center China-Guangzhou	100.0
Samsung (CHINA) Investment Co., Ltd.	Samsung R&D Institute China-Shenzhen	100.0
Samsung (CHINA) Investment Co., Ltd.	Tianjin Samsung Electronics Co., Ltd.	43.1
Samsung (CHINA) Investment Co., Ltd.	Beijing Samsung Telecom R&D Center	100.0
Samsung (CHINA) Investment Co., Ltd.	Samsung Electronics Suzhou Computer Co., Ltd.	26.3
Samsung (CHINA) Investment Co., Ltd.	Samsung Electronics China R&D Center	100.0
Harman International (China) Holdings Co., Ltd.	Harman (Suzhou) Audio and Infotainment Systems Co., Ltd.	100.0
Harman International (China) Holdings Co., Ltd.	Harman Technology (Shenzhen) Co., Ltd.	100.0
Harman International (China) Holdings Co., Ltd.	Harman (China) Technologies Co., Ltd.	100.0
Harman Holding Limited	Harman Commercial (Shanghai) Co., Ltd.	100.0
Harman Holding Limited	Harman International (China) Holdings Co., Ltd.	100.0

Investor	Investee	Ownership
Harman Holding Limited	Harman Automotive Electronic Systems (Suzhou) Co., Ltd.	100.0
Samsung Gulf Electronics Co., Ltd.	Samsung Electronics Egypt S.A.E	0.1
Samsung Electronics Maghreb Arab	Samsung Electronics Tunisia S.A.R.L	1.0
Harman Industries Holdings Mauritius Ltd.	Harman International (India) Private Limited	100.0
Global Symphony Technology Group Private Ltd.	Harman Connected Services Corp. India Pvt. Ltd.	98.4
Red Bend Ltd.	Red Bend Software Ltd.	100.0
Samsung Electronics Latinoamerica(Zona Libre), S. A.	Samsung Electronics Latinoamerica Miami, Inc.	100.0
Samsung Electronics Latinoamerica(Zona Libre), S. A.	Samsung Electronica Colombia S.A.	100.0
Samsung Electronics Latinoamerica(Zona Libre), S. A.	Samsung Electronics Panama. S.A.	100.0
Samsung Eletronica da Amazonia Ltda.	Samsung Electronics Argentina S.A.	2.0
Harman do Brasil Industria Eletronica e Participacoes Ltda.	Harman da Amazonia Industria Eletronica e Participacoes Ltda.	100.0
Samsung Electronics Central Eurasia LLP	Samsung Electronics Caucasus Co. Ltd	0.0
Samsung SDI	Intellectual Keystone Technology LLC	41.0
Samsung SDI	Samsung SDI Japan Co., Ltd.	89.2
Samsung SDI	Samsung SDI America, Inc.	91.7
Samsung SDI	Samsung SDI Hungary., Zrt.	100.0
Samsung SDI	Samsung SDI Europe GmbH	100.0
Samsung SDI	Samsung SDI Battery Systems GmbH	100.0
Samsung SDI	Samsung SDI Vietnam Co., Ltd.	100.0
Samsung SDI	Samsung SDI Energy Malaysia Sdn, Bhd.	100.0
Samsung SDI	Samsung SDI India Private Limited	100.0
Samsung SDI	Samsung SDI(Hong Kong) Ltd.	97.6
Samsung SDI	Samsung SDI China Co., Ltd.	100.0
Samsung SDI	Samsung SDI-ARN (Xi'An) Power Battery Co., Ltd.	65.0
Samsung SDI	Samsung SDI (Tianjin) Battery Co.,Ltd.	80.0
Samsung SDI	Novaled GmbH	50.1
Samsung SDI	SAMSUNG SDI WUXI CO.,LTD.	100.0
Samsung SDI	iMarket Asia Co., Ltd.	8.7
Samsung SDI(Hong Kong) Ltd.	Samsung SDI India Private Limited	0.0
Samsung SDI(Hong Kong) Ltd.	Tianjin Samsung SDI Co., Ltd.	80.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics Japan Co., Ltd.	100.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics America, Inc.	100.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics GmbH	100.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics Philippines, Corp.	100.0
Samsung Electro-Mechanics	Calamba Premier Realty Corporation	39.8
Samsung Electro-Mechanics	Samsung Electro-Mechanics Pte Ltd.	100.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics Vietnam Co., Ltd.	100.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics Software India Bangalore Private Limited	99.9
Samsung Electro-Mechanics	Dongguan Samsung Electro-Mechanics Co., Ltd.	100.0
Samsung Electro-Mechanics	Tianjin Samsung Electro-Mechanics Co., Ltd.	81.8
Samsung Electro-Mechanics	Samsung High-Tech Electro-Mechanics(Tianjin) Co., Ltd.	95.0
Samsung Electro-Mechanics	Samsung Electro-Mechanics (Shenzhen) Co., Ltd.	100.0
Samsung Electro-Mechanics	Kunshan Samsung Electro-Mechanics Co., Ltd.	100.0
Samsung Electro-Mechanics	iMarket Asia Co., Ltd.	8.7
Calamba Premier Realty Corporation	Batino Realty Corporation	100.0
Samsung Electro-Mechanics Pte Ltd.	Samsung Electro-Mechanics Software India Bangalore Private Limited	0.1
Samsung Fire & Marine Insurance	Samsung Fire & Marine Management Corporation	100.0
Samsung Fire & Marine Insurance	SAMSUNG FIRE & MARINE INSURANCE COMPANY OF EUROPE LTD.	100.0
Samsung Fire & Marine Insurance	PT. Asuransi Samsung Tugu	70.0
Samsung Fire & Marine Insurance	SAMSUNG VINA INSURANCE COMPANY LIMITED	75.0
Samsung Fire & Marine Insurance	Samsung Reinsurance Pte. Ltd.	100.0
Samsung Fire & Marine Insurance	Samsung Property & Casualty Insurance Company(China), Ltd	100.0
Samsung Fire & Marine Insurance	Samsung Fire & Marine Insurance Management Middle East Limited	100.0
Samsung Heavy Industries Co.,Ltd.	Camellia Consulting Corporation	100.0
Samsung Heavy Industries Co.,Ltd.	Samsung Heavy Industries India Pvt.Ltd.	100.0

Investor	Investee	Ownership
Samsung Heavy Industries Co.,Ltd.	SAMSUNG HEAVY INDUSTRIES (M) SDN.BHD	100.0
Samsung Heavy Industries Co.,Ltd.	Samsung Heavy Industries(Ningbo) Co., Ltd	100.0
Samsung Heavy Industries Co.,Ltd.	Samsung Heavy Industries(Rongcheng) Co., Ltd	100.0
Samsung Heavy Industries Co.,Ltd.	SAMSUNG HEAVY INDUSTRIES NIGERIA LIMITED	100.0
Samsung Heavy Industries Co.,Ltd.	Samsung Heavy Industries Mozambique LDA	100.0
Samsung Heavy Industries Co.,Ltd.	Samsung Heavy Industries Rus LLC	100.0
SAMSUNG HEAVY INDUSTRIES NIGERIA LIMITED	SHI - MCI FZE	70.0
Samsung Life Insurance	Porta Nuova Varesine Building 2 S.r.l.	51.0
Samsung Life Insurance	Samsung Life Insurance (Thailand) Public Co., Ltd	48.9
Samsung Life Insurance	Beijing Samsung Real Estate Co.. Ltd	90.0
Samsung Asset Management	Samsung Asset Management (New York), Inc.	100.0
Samsung Asset Management	Samsung Global SME Private Equity Manager Fund Co., Ltd.	100.0
Samsung Asset Management	Samsung Asset Management U.S. Holdings, Inc.	100.0
Samsung Asset Management	Samsung Private Equity Fund 2022 GP, Ltd.	100.0
Samsung Asset Management	Samsung Co-Investment 2021 GP, Ltd.	100.0
Samsung Asset Management	Samsung Asset Management(London) Ltd.	100.0
Samsung Asset Management	Samsung Private Equity Manager I Co., Ltd.	100.0
Samsung Asset Management	Samsung Asset Management (Hong Kong) Ltd.	100.0
Samsung Asset Management (Hong Kong) Ltd.	Samsung Asset Management (Beijing) Ltd.	100.0
Samsung C&T Corporation	Samsung C&T Japan Corporation	100.0
Samsung C&T Corporation	Samsung C&T America Inc.	100.0
Samsung C&T Corporation	Samsung E&C America, INC.	100.0
Samsung C&T Corporation	Samsung Renewable Energy Inc.	100.0
Samsung C&T Corporation	QSSC, S.A. de C.V.	80.0
Samsung C&T Corporation	Samsung C&T Oil & Gas Parallel Corp.	100.0
Samsung C&T Corporation	Samsung C&T Lima S.A.C.	100.0
Samsung C&T Corporation	Samsung C&T Deutschland GmbH	100.0
Samsung C&T Corporation	Samsung C&T U.K. Ltd.	100.0
Samsung C&T Corporation	Samsung C&T ECUK Limited	100.0
Samsung C&T Corporation	Whessoe engineering Limited	100.0
Samsung C&T Corporation	POSS-SLPC, S.R.O	50.0
Samsung C&T Corporation	Solluce Romania 1 B.V.	80.0
Samsung C&T Corporation	SAM investment Manzanilo.B.V	53.3
Samsung C&T Corporation	Samsung C&T (KL) Sdn.,Bhd.	100.0
Samsung C&T Corporation	Samsung C&T Malaysia SDN. BHD	100.0
Samsung C&T Corporation	Erdsam Co., Ltd.	100.0
Samsung C&T Corporation	Samsung Chemtech Vina LLC	51.7
Samsung C&T Corporation	Samsung C&T Thailand Co., Ltd	93.0
Samsung C&T Corporation	PT. INSAM BATUBARA ENERGY	34.8
Samsung C&T Corporation	Samsung C&T India Private Limited	100.0
Samsung C&T Corporation	Samsung C&T Corporation India Private Limited	100.0
Samsung C&T Corporation	Malaysia Samsung Steel Center Sdn.Bhd	70.0
Samsung C&T Corporation	Samsung C&T Singapore Pte., Ltd.	100.0
Samsung C&T Corporation	S&G Biofuel PTE.LTD	50.5
Samsung C&T Corporation	SAMSUNG C&T Mongolia LLC.	70.0
Samsung C&T Corporation	Samsung C&T Eng.&Const. Mongolia LLC.	100.0
Samsung C&T Corporation	S&WOO CONSTRUCTION PHILIPPINES,INC.	100.0
Samsung C&T Corporation	VSSC STEEL CENTER LIMITED LIABILITY COMPANY	70.0
Samsung C&T Corporation	Vista Contracting and Investment Global Pte. Ltd.	100.0
Samsung C&T Corporation	SAMSUNG CONST. CO. PHILS.	25.0
Samsung C&T Corporation	CHEIL HOLDING INC.	40.0
Samsung C&T Corporation	Samsung C&T Hongkong Ltd.	100.0
Samsung C&T Corporation	Samsung C&T Taiwan Co., Ltd.	100.0
Samsung C&T Corporation	Samsung Precision Stainless Steel(pinghu) Co.,Ltd.	55.0
Samsung C&T Corporation	SAMSUNG C&T (SHANGHAI) CO., LTD.	100.0

Investor	Investee	Ownership
Samsung C&T Corporation	Samsung C&T (Xi'an) Co., Ltd.	100.0
Samsung C&T Corporation	WARIS GIGIH ENGINEERING AND TECHNOLOGY SDN. BHD.	30.0
Samsung C&T Corporation	SAMSUNG C&T CORPORATION SAUDI ARABIA	100.0
Samsung C&T Corporation	SAM Gulf Investment Limited	100.0
Samsung C&T Corporation	Samsung C&T Chile Copper SpA	100.0
Samsung C&T Corporation	SCNT Power Kelar Inversiones Limitada	100.0
Samsung C&T Corporation	Samsung C&T Corporation Rus LLC	100.0
Samsung C&T Corporation	Samsung SDI America, Inc.	8.3
Samsung C&T Corporation	Samsung SDI(Hong Kong) Ltd.	2.4
Samsung C&T Corporation	Beijing Samsung Real Estate Co.. Ltd	10.0
Samsung C&T Corporation	Cheil Industries Corp., USA	100.0
Samsung C&T Corporation	CHEIL INDUSTRIES ITALY SRL	100.0
Samsung C&T Corporation	Samsung Fashion Trading Co. ,Ltd	100.0
Samsung C&T Corporation	SAMSUNG C&T CORPORATION VIETNAM CO., LTD	100.0
Samsung C&T Corporation	Samsung C&T Corporation UEM Construction JV Sdn Bhd	60.0
Samsung C&T Corporation	iMarket Asia Co., Ltd.	19.3
Samsung Welstory	WELSTORY VIETNAM COMPANY LIMITED	100.0
Samsung Welstory	Shanghai Ever-Hongjun Business Mgt Service Co.,LTD	85.0
Samsung Welstory	Shanghai Welstory Food Company Limited	81.6
MULTICAMPUS	LANGUAGE TESTING INTERNATIONAL, INC.	82.4
Pengtai Greater China Company Limited	PENGTAI CHINA CO.,LTD.	100.0
Pengtai Greater China Company Limited	PengTai Taiwan Co., Ltd.	100.0
PENGTAI CHINA CO.,LTD.	PENGTAI E-COMMERCE CO.,LTD	100.0
PENGTAI CHINA CO.,LTD.	PENGTAI MARKETING SERVICE CO.,LTD.	100.0
PENGTAI INTERACTIVE ADVERTISING CO.,LTD	Medialytics Inc.	100.0
PENGTAI INTERACTIVE ADVERTISING CO.,LTD	Beijing Pengtai Baozun E-commerce Co., Ltd.	51.0
iMarket Asia Co., Ltd.	iMarket China Co., Ltd.	80.0
Samsung Securities	Samsung Securities (America), Inc.	100.0
Samsung Securities	Samsung Securities (Europe) Limited.	100.0
Samsung Securities	Samsung Securities (Asia) Limited.	100.0
Samsung SDS	iMarket Asia Co., Ltd.	40.6
Samsung SDS	Samsung SDS America, Inc.	100.0
Samsung SDS	SAMSUNG SDS GSCL Canada., Ltd.	100.0
Samsung SDS	Neo EXpress Transportation (NEXT) Inc.	51.0
Samsung SDS	Samsung SDS Europe, Ltd.	100.0
Samsung SDS	Samsung SDS Global SCL Hungary, Kft.	100.0
Samsung SDS	Samsung SDS Global SCL Slovakia, S.R.O.	100.0
Samsung SDS	Samsung SDS Global SCL Poland Sp. Z.o.o.	100.0
Samsung SDS	Samsung GSCL Sweden AB	100.0
Samsung SDS	Samsung SDS Global SCL France SAS	100.0
Samsung SDS	Samsung SDS Global SCL Greece Societe Anonyme	100.0
Samsung SDS	Samsung SDS Global SCL Italy S.R.L. A Socio Unico	100.0
Samsung SDS	Samsung SDS Global Supply Chain Logistics Spain S.L.U	100.0
Samsung SDS	Samsung SDS Global SCL Netherlands Cooperatief U.A.	100.0
Samsung SDS	Samsung SDS Global SCL Germany GmbH	100.0
Samsung SDS	Samsung SDS Global SCL Romania S.R.L	100.0
Samsung SDS	Samsung SDS Asia Pacific Pte, Ltd.	100.0
Samsung SDS	Samsung Data Systems India Private Limited	100.0
Samsung SDS	Samsung SDS Vietnam Co., Ltd.	100.0
Samsung SDS	PT. Samsung SDS Global SCL Indonesia	100.0
Samsung SDS	Samsung SDS Global SCL Philippines Co., Ltd.Inc.	100.0
Samsung SDS	Samsung SDS Global SCL Thailand Co.,Ltd	100.0
Samsung SDS	Samsung SDS Global SCL Malaysia SDN.BHD.	100.0
Samsung SDS	SAMSUNG SDS Global SCL Australia Pty.,Ltd.	100.0
Samsung SDS	SDS-ACUTECH CO., Ltd.	50.0

Investor	Investee	Ownership
Samsung SDS	ALS SDS Joint Stock Company	51.0
Samsung SDS	SDS-MP Logistics Joint Stock Company	51.0
Samsung SDS	Samsung SDS China Co., Ltd.	100.0
Samsung SDS	Samsung SDS Global SCL Hong Kong Co., Ltd.	100.0
Samsung SDS	SAMSUNG SDS Global SCL Egypt	100.0
Samsung SDS	Samsung SDS Global SCL South Africa (PTY) Ltd.	100.0
Samsung SDS	Samsung SDS Global SCL Nakliyat ve Lojistik Anonim Sirketi	100.0
Samsung SDS	Samsung SDS Global Supply Chain Logistics Middle East DWC-LLC	100.0
Samsung SDS	Samsung SDS Latin America Tecnologia E Logistica LTDA.	99.7
Samsung SDS	INTE-SDS Logistics S.A. de C.V.	51.0
Samsung SDS	Samsung SDS Rus Limited Liability Company	100.0
Miracom	MIRACOM INC ASIA PACIFIC LIMITED	100.0
Samsung SDS America, Inc.	Samsung SDS Mexico, S.A. DE C.V.	99.0
Samsung SDS America, Inc.	Samsung SDS Global SCL Panama S.A.	100.0
Samsung SDS America, Inc.	Samsung SDS Global SCL Chile Limitada	100.0
Samsung SDS America, Inc.	Samsung SDS Global SCL Peru S.A.C	100.0
Samsung SDS America, Inc.	Samsung SDS Global SCL Colombia S.A.S	100.0
Samsung SDS America, Inc.	Samsung SDS Latin America Tecnologia E Logística LTDA.	0.3
Samsung SDS Europe, Ltd.	Samsung SDS Global SCL Netherlands Cooperatief U.A.	0.0
Samsung SDS Global SCL Netherlands Cooperatief U.A.	Samsung SDS Global SCL Poland Sp. Z.o.o.	0.0
Samsung SDS Global SCL Netherlands Cooperatief U.A.	Samsung SDS Global SCL Greece Societe Anonyme	0.0
Samsung SDS Global SCL Netherlands Cooperatief U.A.	Samsung SDS Global SCL Romania S.R.L	0.0
Samsung SDS Global SCL Netherlands Cooperatief U.A.	Samsung SDS Rus Limited Liability Company	0.0
Samsung SDS China Co., Ltd.	Samsung SDS Global Development Center Xi'an	100.0
Samsung SDS China Co., Ltd.	Samsung SDS Global SCL Beijing Co., Ltd.	100.0
Samsung Engineering	Samsung Engineering America Inc.	100.0
Samsung Engineering	Samsung Engineering Hungary Ltd.	100.0
Samsung Engineering	Samsung Engineering Italy S.R.L.	100.0
Samsung Engineering	Samsung Engineering (Malaysia) SDN. BHD.	100.0
Samsung Engineering	PT Samsung Engineering Indonesia Co., Ltd.	100.0
Samsung Engineering	Samsung Engineering (Thailand) Co., Ltd.	81.0
Samsung Engineering	Samsung Engineering India Private Limited	100.0
Samsung Engineering	Samsung Engineering Vietnam Co., Ltd.	100.0
Samsung Engineering	Samsung Engineering Construction(Shanghai) Co., Ltd	100.0
Samsung Engineering	Samsung Engineering Construction Xi' an Co., Ltd.	100.0
Samsung Engineering	Samsung Saudi Arabia Co., Ltd.	100.0
Samsung Engineering	Muharraq Wastewater Services Company W.L.L.	99.8
Samsung Engineering	Muharraq STP Company B.S.C.	6.6
Samsung Engineering	Muharraq Holding Company 1 Ltd.	65.0
Samsung Engineering	Samsung Ingenieria Mexico Construccion Y Operacion S.A. De C.V.	99.9
Samsung Engineering	Samsung Engineering Trinidad Co., Ltd.	100.0
Samsung Engineering	Samsung Ingenieria Manzanillo, S.A. De C.V.	99.9
Samsung Engineering	Grupo Samsung Ingenieria Mexico, S.A. De C.V.	100.0
Samsung Engineering	Samsung Ingenieria Energia S.A. De C.V.	100.0
Samsung Engineering	Samsung Engineering Bolivia S.A	100.0
Samsung Engineering	Samsung Ingenieria DUBA S.A. de C.V.	100.0
Samsung Engineering	Samsung Engineering Kazakhstan L.L.P.	100.0
Samsung Engineering America Inc.	SEA Construction, LLC	100.0
Samsung Engineering America Inc.	SEA Louisiana Construction, L.L.C.	100.0
Samsung Engineering (Malaysia) SDN. BHD.	Muharraq Wastewater Services Company W.L.L.	0.3
Samsung Engineering India Private Limited	Samsung Saudi Arabia Co., Ltd.	0.0
Samsung Saudi Arabia Co., Ltd.	Samsung EPC Company Ltd.	75.0
Muharraq Holding Company 1 Ltd.	Muharraq Holding Company 2 Ltd.	100.0
Muharraq Holding Company 2 Ltd.	Muharraq STP Company B.S.C.	89.9
Samsung Ingenieria DUBA S.A. de C.V.	Asociados Constructores DBNR, S.A. de C.V.	49.0

Investor	Investee	Ownership
S1 Corporation	S-1 CORPORATION HUNGARY LLC	100.0
S1 Corporation	S-1 CORPORATION VIETNAM CO., LTD	100.0
S1 Corporation	Samsung Beijing Security Systems	100.0
Cheil Worldwide	PENGTAI INTERACTIVE ADVERTISING CO.,LTD	100.0
Cheil Worldwide	Cheil USA Inc.	100.0
Cheil Worldwide	Cheil Central America Inc.	100.0
Cheil Worldwide	Iris Worldwide Holdings Limited	100.0
Cheil Worldwide	CHEIL EUROPE LIMITED	100.0
Cheil Worldwide	Cheil Germany GmbH	100.0
Cheil Worldwide	Cheil France SAS	100.0
Cheil Worldwide	CHEIL SPAIN S.L	100.0
Cheil Worldwide	Cheil Benelux B.V.	100.0
Cheil Worldwide	Cheil Nordic AB	100.0
Cheil Worldwide	Cheil India Private Limited	100.0
Cheil Worldwide	Cheil (Thailand) Ltd.	100.0
Cheil Worldwide	Cheil Singapore Pte. Ltd.	100.0
Cheil Worldwide	CHEIL VIETNAM COMPANY LIMITED	99.0
Cheil Worldwide	Cheil Integrated Marketing Philippines, Inc.	100.0
Cheil Worldwide	CHEIL MALAYSIA SDN. BHD.	100.0
Cheil Worldwide	Cheil New Zealand Limited	100.0
Cheil Worldwide	CHEIL CHINA	100.0
Cheil Worldwide	Cheil Hong Kong Ltd.	100.0
Cheil Worldwide	Caishu (Shanghai) Business Consulting Co., Ltd	100.0
Cheil Worldwide	Cheil MEA FZ-LLC	100.0
Cheil Worldwide	Cheil South Africa (Pty) Ltd	100.0
Cheil Worldwide	CHEIL KENYA LIMITED	99.0
Cheil Worldwide	Cheil Communications Nigeria Ltd.	99.0
Cheil Worldwide	Cheil Worldwide Inc./Jordan LLC.	100.0
Cheil Worldwide	Cheil Ghana Limited	100.0
Cheil Worldwide	Cheil Egypt LLC	99.9
Cheil Worldwide	Cheil Brasil Comunicacoes Ltda.	100.0
Cheil Worldwide	Cheil Mexico, S.A. de C.V.	98.0
Cheil Worldwide	Cheil Chile SpA.	100.0
Cheil Worldwide	Cheil Peru S.A.C.	100.0
Cheil Worldwide	CHEIL ARGENTINA S.A.	98.0
Cheil Worldwide	Cheil Rus LLC	100.0
Cheil Worldwide	Cheil Ukraine LLC	100.0
Cheil Worldwide	Cheil Kazakhstan LLC	100.0
Hotel Shilla	Samsung Hospitality America Inc.	100.0
Hotel Shilla	Shilla Travel Retail Pte. Ltd.	100.0
Hotel Shilla	Samsung Shilla Business Service Beijing Co., Ltd.	100.0
Hotel Shilla	Shilla Travel Retail Hong Kong Limited	100.0
Hotel Shilla	Shilla Travel Retail Taiwan Limited	64.0
HDC Shilla Duty Free LTD	HDC SHILLA (SHANGHAI) CO., LTD	100.0
SBTM	Samsung Hospitality U.K. Ltd.	100.0
SBTM	Samsung Hospitality Europe GmbH	100.0
SBTM	SAMSUNG HOSPITALITY ROMANIA SRL	100.0
SBTM	Samsung Hospitality Vietnam Co., Ltd.	99.0
SBTM	Samsung Hospitality Philippines Inc.	100.0
SBTM	Samsung Hospitality India Private Limited	100.0
Samsung Venture Investment	Samsung Venture Investment (Shanghai) Co., Ltd.	100.0
Iris Americas, Inc.	Iris (USA) Inc.	100.0
Iris Americas, Inc.	Iris Atlanta, Inc.	100.0
Iris Americas, Inc.	89 Degrees, Inc.	100.0
Cheil USA Inc.	The Barbarian Group LLC	100.0

Investor	Investee	Ownership
Cheil USA Inc.	McKinney Ventures LLC	100.0
Cheil USA Inc.	Cheil India Private Limited	0.0
Cheil USA Inc.	Cheil Mexico, S.A. de C.V.	2.0
Iris Worldwide Holdings Limited	Iris Nation Worldwide Limited	100.0
Iris Nation Worldwide Limited	Iris Americas, Inc.	100.0
Iris Nation Worldwide Limited	Irisnation Latina No.2, S. de R.L. de C.V.	100.0
Iris Nation Worldwide Limited	Irisnation Latina, S. de R.L. de C.V.	100.0
Iris Nation Worldwide Limited	Pricing Solutions Ltd	100.0
Iris Nation Worldwide Limited	Iris London Limited	100.0
Iris Nation Worldwide Limited	Iris Promotional Marketing Ltd	100.0
Iris Nation Worldwide Limited	Iris Ventures 1 Limited	98.6
Iris Nation Worldwide Limited	Founded Partners Limited	100.0
Iris Nation Worldwide Limited	Iris Korea Limited	100.0
Iris Nation Worldwide Limited	Iris Digital Limited	100.0
Iris Nation Worldwide Limited	Iris Amsterdam B.V.	100.0
Iris Nation Worldwide Limited	Iris Ventures (Worldwide) Limited	100.0
Iris Nation Worldwide Limited	Iris Culture Limited	100.0
Iris Nation Worldwide Limited	Concise Consultants Limited	100.0
Iris Nation Worldwide Limited	Atom42 Ltd	100.0
Iris Nation Worldwide Limited	WDMP Limited	49.0
Iris Nation Worldwide Limited	Pricing Solutions (UK) Limited	100.0
Iris Nation Worldwide Limited	Iris Services Limited Doel Skopje	100.0
Iris Nation Worldwide Limited	Irisnation Singapore Pte. Ltd.	100.0
Iris Nation Worldwide Limited	Iris Worldwide Integrated Marketing Private Limited	100.0
Iris Nation Worldwide Limited	Iris Sydney PTY Ltd	100.0
Iris Nation Worldwide Limited	Iris Worldwide (Thailand) Limited	100.0
Iris London Limited	Iris Partners LLP	100.0
Iris Promotional Marketing Ltd	Holdings BR185 Limited	100.0
Iris Ventures 1 Limited	Iris Germany GmbH	100.0
Founded Partners Limited	Founded, Inc.	100.0
Iris Germany GmbH	Pepper NA, Inc.	100.0
Iris Germany GmbH	Pepper Technologies Pte. Ltd.	100.0
CHEIL EUROPE LIMITED	Beattie McGuinness Bungay Limited	100.0
CHEIL EUROPE LIMITED	Cheil Italia S.r.l	100.0
Cheil Germany GmbH	Cheil Austria GmbH	100.0
Cheil Germany GmbH	Centrade Integrated SRL	100.0
Centrade Integrated SRL	Centrade Cheil HU Kft.	100.0
Centrade Integrated SRL	Centrade Cheil Adriatic D.O.O.	100.0
Cheil India Private Limited	Experience Commerce Software Private Limited	100.0
Cheil Singapore Pte. Ltd.	Pengtai Greater China Company Limited	95.7
Cheil Singapore Pte. Ltd.	PT. CHEIL WORLDWIDE INDONESIA	100.0
Cheil Integrated Marketing Philippines, Inc.	Cheil Philippines Inc.	30.0
Shilla Travel Retail Pte. Ltd.	Shilla Retail Plus Pte. Ltd.	100.0
Cheil Hong Kong Ltd.	Pengtai Greater China Company Limited	3.1
Samsung Shilla Business Service Beijing Co., Ltd.	Tianjin Samsung International Travel Service Co., Ltd	100.0
Shilla Travel Retail Hong Kong Limited	Shilla Retail Limited	100.0
Shilla Travel Retail Hong Kong Limited	Shilla Travel Retail Duty Free HK Limited	100.0
Cheil MEA FZ-LLC	One Agency FZ-LLC	100.0
Cheil MEA FZ-LLC	One RX Project Management Design and Production Limited Company	0.0
Cheil MEA FZ-LLC	Cheil Egypt LLC	0.1
Cheil South Africa (Pty) Ltd	CHEIL KENYA LIMITED	1.0
Cheil South Africa (Pty) Ltd	Cheil Communications Nigeria Ltd.	1.0
One Agency FZ-LLC	One RX India Private Limited	100.0
One Agency FZ-LLC	One RX Project Management Design and Production Limited Company	100.0
One Agency FZ-LLC	ONE RX INTERIOR DECORATION L.L.C	100.0

Investor	Investee	Ownership
One Agency FZ-LLC	ONE AGENCY PRINTING L.L.C	100.0
One Agency FZ-LLC	One Agency South Africa (Pty) Ltd	100.0
ONE RX INTERIOR DECORATION L.L.C	One RX India Private Limited	0.0
Holdings BR185 Limited	Brazil 185 Participacoes Ltda	100.0
Brazil 185 Participacoes Ltda	Iris Router Marketing Ltda	100.0
Cheil Brasil Comunicacoes Ltda.	CHEIL ARGENTINA S.A.	2.0

※ Percent of ownership as of June 30, 2022 based on common shares

C. Related statute & regulation

Restrictions on cross-holdings within Samsung Group in accordance with the Monopoly Regulation and Fair Trade Act

(1) Date of announcement by authorities of companies deemed Samsung Group companies for the current year:
May 1, 2022

(2) Summary of Regulation

- Restriction on cross-holdings
- Restriction on debt guarantee between affiliates
- Restriction on affiliate voting rights of financial & insurance companies
- Decision making of board committee and public disclosure of large-scale inter-affiliate transactions
- Public disclosure of important matters of unlisted companies
- Other public disclosures related to Group status

D. Concurrent position with other affiliates

[As of June 30, 2022]

		Concurrent position		
Name	Position	Name of company	Position	Full/part time
Yong-kwan Kim	Executive VP	Samsung Medison	Representative Director	Full time
Yeon-sung Kim	Executive VP	Samsung Electronics Sales	Auditor	Part time
		Samsung Electronics Logitech	Auditor	Part time
		Samsung Electronics Service	Auditor	Part time
Seung-ho Ryu	Executive VP	Samsung Medison	Auditor	Part time
Jeong-jun Choi	Executive VP	Samsung Venture Investment	Auditor	Part time
Han-jong Yoo	VP	Samsung Global Research	Auditor	Part time
Khi-jae Cho	Executive VP	Samsung Display	Auditor	Part time
Hyun-woo Kim	Executive VP	SEMES	Auditor	Part time
Myeong-cheol Kim	Executive VP	SEMES	Non-Executive director	Part time
Doug-yong Sung	VP	SEMES	Non-Executive director	Part time
Jae-kyun Oh	VP	STECO	Auditor	Part time
Dong-wook Park	VP	STECO	Non-Executive director	Part time

E. Equity investments in other corporations

The total book value of equity investments in other corporations as of June 30, 2022 is KRW 58,867 billion (for the purpose of management participation, etc.).

[As of June 30, 2022]

(KRW Million)

Investment Purpose	No. of investees			Invested amount			
	Listed	Unlisted	Total	Beginning Balance	Increase(decrease)		Ending Balance
					Acquisition (Disposal)	Valuation gain(loss)	
Management Participation	20	78	98	57,768,459	1,136,615	-144,558	58,760,516
General Investment	-	-	-	-	-	-	-
Simple Investment	4	38	42	121,807	6,401	-21,596	106,612
Total	24	116	140	57,890,266	1,143,016	-166,154	58,867,128

X. Transactions with Affiliates and Subsidiaries

1. Credit offerings for affiliates and subsidiaries

As of June 30, 2022, SEC provides a debt guarantee for financing of subsidiaries, including Samsung Electronics America, Inc. (SEA) and other subsidiaries as listed below. (USD thousand)

Company	Relationship	Creditor	Type	Purpose	Guarantee start date	Guarantee expiry date	Limit of guarantee		Transactions			Interest Rate (%)
							Beginning of period	End of period	Beginning of period	Increase/decrease	End of period	
SEA	Subsidiary	BOA etc.	Payment guarantee	Operating fund	Nov 9, 2021	Jun 13, 2023	1,328,000	1,278,000	-	-	-	
SEM	Subsidiary	BBVA etc.	Payment guarantee	Operating fund	Aug 20, 2021	Jun 13, 2023	906,000	865,000	-	-	-	
SAMCOL	Subsidiary	Citibank etc.	Payment guarantee	Operating fund	Nov 9, 2021	Jun 13, 2023	310,000	210,000	-	-	-	
SEDA	Subsidiary	BRDESC O etc.	Payment guarantee	Operating fund	Sep 30, 2021	Dec 16, 2022	409,000	409,000	-	-	-	
SECH	Subsidiary	Citibank etc.	Payment guarantee	Operating fund	Dec 17, 2021	Jun 13, 2023	62,000	62,000	-	-	-	
SEPR	Subsidiary	BBVA etc.	Payment guarantee	Operating fund	Dec 17, 2021	Jun 13, 2023	150,000	150,000	-	-	-	
SSA	Subsidiary	SCB etc.	Payment guarantee	Operating fund	Nov 9, 2021	Jun 13, 2023	318,000	318,000	-	-	-	
SEMAG	Subsidiary	SocGen etc.	Payment guarantee	Operating fund	Nov 9, 2021	Dec 16, 2022	110,000	110,000	-	-	-	
SETK	Subsidiary	BNP etc.	Payment guarantee	Operating fund	Nov 9, 2021	Jun 13, 2023	807,000	807,000	102,275	127,907	230,182	28.6%
SETK-P	Subsidiary	BNP etc.	Payment guarantee	Operating fund	Nov 9, 2021	Dec 16, 2022	130,000	130,000	33,334	65	33,399	30.4%
SECE	Subsidiary	Citibank etc.	Payment guarantee	Operating fund	Jul 19, 2021	Dec 16, 2022	73,722	72,811	-	-	-	
SEEG	Subsidiary	HSBC	Payment guarantee	Operating fund	Jun 14, 2022	Jun 13, 2023	85,000	85,000	-	-	-	
SEIN	Subsidiary	BNP etc.	Payment guarantee	Operating fund	Nov 9, 2021	Jun 13, 2023	70,000	70,000	-	-	-	
SJC	Subsidiary	Mizuho Bank etc.	Payment guarantee	Operating fund	Nov 9, 2021	May 31, 2023	877,579	824,834	-	-	-	
SEUC	Subsidiary	Credit Agricole etc.	Payment guarantee	Operating fund	Nov 9, 2021	Jun 13, 2023	150,000	150,000	-	-	-	
SEDAM	Subsidiary	Citibank etc.	Payment guarantee	Operating fund	Nov 9, 2021	Jun 13, 2023	141,000	342,000	-	129,096	129,096	8.3%
SECA	Subsidiary	BoA	Payment guarantee	Operating fund	Nov 9, 2021	Nov 8, 2022	70,000	70,000	-	-	-	
SELA	Subsidiary	Citibank	Payment guarantee	Operating fund	Dec 17, 2021	Dec 16, 2022	120,000	60,000	-	-	-	
SEEH	Subsidiary	HSBC etc.	Payment guarantee	Operating fund	Sep 6, 2021	Jun 13, 2023	712,400	833,400	-	-	-	
SERK	Subsidiary	HSBC etc.	Payment guarantee	Operating fund	Jul 13, 2021	Jun 13, 2023	290,000	140,000	-	-	-	
SELV	Subsidiary	Citibank	Payment guarantee	Operating fund	Dec 17, 2021	Dec 16, 2022	10,000	10,000	-	-	-	
SEIL	Subsidiary	Citibank	Payment guarantee	Operating fund	Dec 17, 2021	Dec 16, 2022	15,600	15,600	10,947	-1,120	9,827	1.3%
SAPL	Subsidiary	BOA etc.	Payment guarantee	Operating fund	Nov 9, 2021	Jun 13, 2023	345,000	404,000	-	-	-	
SAVINA	Subsidiary	HSBC	Payment guarantee	Operating fund	Jun 14, 2022	Jun 13, 2023	51,000	51,000	-	-	-	
SCIC	Subsidiary	HSBC etc.	Payment guarantee	Operating fund	Nov 9, 2021	Jun 13, 2023	300,000	300,000	-	-	-	
SME	Subsidiary	SCB	Payment guarantee	Operating fund	Nov 9, 2021	Nov 8, 2022	110,000	110,000	-	-	-	
SAMEX	Subsidiary	Citibank	Payment guarantee	Operating fund	Dec 17, 2021	Dec 16, 2022	5,000	5,000	-	-	-	
SEASA	Subsidiary	Citibank	Payment guarantee	Operating fund	Dec 17, 2021	Dec 16, 2022	2,000	2,000	-	-	-	
SSAP	Subsidiary	SCB	Payment guarantee	Operating fund	Nov 9, 2021	Nov 8, 2022	35,000	35,000	-	-	-	
SEPM	Subsidiary	HSBC	Payment guarantee	Operating fund	Jun 14, 2022	Jun 13, 2023	35,000	35,000	-	-	-	
SESAR	Subsidiary	HSBC	Payment guarantee	Operating fund	Jun 14, 2022	Jun 13, 2023	50,000	50,000	-	-	-	
AdGear Technologies Inc.	Subsidiary	BOA	Payment guarantee	Operating fund	Nov 09, 2021	Nov 08, 2022	2,000	2,000	-	-	-	
Harman International Industries, Inc.	Subsidiary	JP Morgan	Payment guarantee	Operating fund	Jun 14, 2022	Jun 13, 2023	100,000	100,000	-	-	-	
Harman International Japan Co., Ltd.	Subsidiary	MUFG	Payment guarantee	Operating fund	Nov 09, 2021	Nov 08, 2022	25,000	25,000	-	-	-	
Harman RUS CIS LLC	Subsidiary	SocGen	Payment guarantee	Operating fund	Nov 09, 2021	May 31, 2022	15,000	-	-	-	-	
Harman Holding Limited	Subsidiary	HSBC	Payment guarantee	Operating fund	Jun 14, 2022	Jun 13, 2023	30,000	30,000	-	-	-	

Harman do Brasil Industria Eletronica e Participacoes Ltda.	Subsidiary	SocGen	Payment guarantee	Operating fund	Nov 09, 2021	Nov 08, 2022	15,000	15,000	-	-	-
Harman da Amazonia Industria Eletronica e Participacoes Ltda.											
Harman International Industries Limited	Subsidiary	HSBC	Payment guarantee	Operating fund	Jun 14, 2022	Jun 13, 2023	-	35,000	-	-	-
Total							8,265,301	8,211,645	146,556	255,948	402,504

Separate basis.

Please refer to 『1. Subsidiaries subject to consolidated financial statements (detailed)』 in 『XII. Appendix』 for names of subsidiaries.

The approval decision is resolved by the Management Committee when the guarantee amount per transaction is between 0.1% and/or less than 2.5%, and by the Board of Directors when the guarantee amount per transaction is 2.5% and above.

SEC receives fees on the debt it guarantees depending on the maturity date of each debt guarantee, general loan interest rate, etc.

The Company claimed approximately USD 266 thousand in guarantee fees in 2021 and received it in 1H22.

2. Acquisitions and disposals of assets with affiliates and subsidiaries

In 1H22, the Company sold assets to affiliates, including Samsung (China) Semiconductor Co., Ltd. (SCS), to increase production capacity of such affiliates. Also, the Company acquired assets including facility equipment from affiliates to improve efficiency of domestic production.

(KRW mil)

Company	Relationship	Transaction type	Transaction date ¹⁾	Asset	Purpose of transaction	Amount ²⁾	Gain or loss on disposal
SCS	Affiliates	Asset sale/purchase	May 30, 2022	Machinery, etc.	Enhance capacity and production efficiency	6,743	4,266
SEHC	Affiliates	Asset sale/purchase	Mar 31, 2022	Machinery, etc.	Enhance capacity and production efficiency	3,129	255
SESS	Affiliates	Asset sale/purchase	May 20, 2022	Machinery, etc.	Enhance capacity and production efficiency	5,142	639
SAS	Affiliates	Asset purchase	Mar 22, 2022	Machinery, etc.	Enhance capacity and production efficiency	1,430	-
SII	Affiliates	Asset sale	May 9, 2022	Machinery, etc.	Enhance capacity and production efficiency	216	-10
SEVT	Affiliates	Asset purchase	May 25, 2022	Machinery, etc.	Enhance capacity and production efficiency	59	-
Samsung Medison	Affiliates	Asset sale	Mar 17, 2022	Machinery, etc.	Enhance capacity and production efficiency	5	5

Separate basis; acquisitions and disposals of assets listed above are not subject to a resolution of the Board.

Please refer to 『1. Subsidiaries subject to consolidated financial statements (detailed)』 in 『XII. Appendix』 for names of subsidiaries.

1) Most recent transaction.

2) Properly calculated by an appropriate method based upon market value assessment. Transaction was made under normal conditions (eg, terms of cash payment within the 15th, 30th of the following month of transaction).

3. Business transactions with affiliates and subsidiaries

In 1H22, the Company had transactions such as sales and purchases with affiliates, including Samsung Semiconductor, Inc. (SSI).

(KRW mil)

Company	Relationship	Type of transaction	Date	Details	Amount
SSI	Affiliates	Sales, purchases, etc.	Jan– Jun 2022	Semiconductors, etc.	22,965,745

SEVT	Affiliates	Sales, purchases, etc.	Jan– Jun 2022	HHPs, etc.	19,530,524
SEA	Affiliates	Sales, purchases, etc.	Jan– Jun 2022	HHPs, Consumer Electronics, etc.	18,873,494
SEV	Affiliates	Sales, purchases, etc.	Jan– Jun 2022	HHPs, etc.	11,207,262
SSS	Affiliates	Sales, purchases, etc.	Jan– Jun 2022	Semiconductors, etc.	10,266,093

Separate basis; Transactions worth 5% and above of revenue of the current business year are subject to public disclosure.

Please refer to 『1. Subsidiaries subject to consolidated financial statements (detailed)』 in 『XII. Appendix』 for names of subsidiaries.

4. Transactions with stakeholders other than affiliates and subsidiaries

As of June 30, 2022, the Company's outstanding loan amount is KRW 147.1 billion related to support for supplier companies for product competitiveness and mutual development as well as home loan and educational expenses for employee welfare.

(KRW mil)

Company	Relationship	Loans			
		Account title	Transaction		
			Beginning of period (Jan 1, 2022)	Change	End of period (Jun 30, 2022)
Elentec Co., Ltd., etc.	Partner company and employee	Short-term loans	42,999	2,188	45,187
Bumjin I&D, etc.	Partner company and employee	Long-term loans	71,604	30,330	101,934
Total			114,603	32,518	147,121

Separate basis; amounts reflect the discounted present value of debts before accounting for impaired debts (impairment losses).

XI. Other Information

1. Changes in public disclosure

- N/A

2. Contingent liabilities

A. Litigation

The Company is involved in various claims, disputes, and investigations conducted by regulatory bodies, which arose during the normal course of business with numerous entities. Although the outflow of resources and timing of these matters are uncertain, as of the reporting date, the Company believes the outcome will not have a material impact on the financial position of the Company.

B. Guarantees

- Domestic: Not applicable

- Overseas:

(USD thousand)

Company	Relationship	Creditor	Guarantee	Transactions			Limit of guarantee
			Expiry date	Beginning of period	Increase/decrease	End of period	
SEA	Subsidiary	BOA etc.	Jun 13, 2023	-	-	-	1,278,000
SEM	Subsidiary	BBVA etc.	Jun 13, 2023	-	-	-	865,000
SAMCOL	Subsidiary	Citibank etc.	Jun 13, 2023	-	-	-	210,000
SEDA	Subsidiary	BRADESCO etc.	Dec 16, 2022	-	-	-	409,000
SECH	Subsidiary	Citibank etc.	Jun 13, 2023	-	-	-	62,000
SEPR	Subsidiary	BBVA etc.	Jun 13, 2023	-	-	-	150,000
SSA	Subsidiary	SCB etc.	Jun 13, 2023	-	-	-	318,000
SEMAG	Subsidiary	SocGen etc.	Dec 16, 2022	-	-	-	110,000
SETK	Subsidiary	BNP etc.	Jun 13, 2023	102,275	127,907	230,182	807,000
SETK-P	Subsidiary	BNP etc.	Dec 16, 2022	33,334	65	33,399	130,000
SECE	Subsidiary	Citibank etc.	Dec 16, 2022	-	-	-	72,811
SEEG	Subsidiary	HSBC	Jun 13, 2023	-	-	-	85,000
SEIN	Subsidiary	BNP etc.	Jun 13, 2023	-	-	-	70,000
SJC	Subsidiary	Mizuho Bank etc.	May 31, 2023	-	-	-	824,834
SEUC	Subsidiary	Credit Agricole etc.	Jun 13, 2023	-	-	-	150,000
SEDAM	Subsidiary	Citibank etc.	Jun 13, 2023	-	129,096	129,096	342,000
SECA	Subsidiary	BoA	Nov 08, 2022	-	-	-	70,000
SELA	Subsidiary	Citibank	Dec 16, 2022	-	-	-	60,000
SEEH	Subsidiary	HSBC etc.	Jun 13, 2023	-	-	-	833,400
SERK	Subsidiary	HSBC etc.	Jun 13, 2023	-	-	-	140,000
SELV	Subsidiary	Citibank	Dec 16, 2022	-	-	-	10,000
SEIL	Subsidiary	Citibank	Dec 16, 2022	10,947	-1,120	9,827	15,600
SAPL	Subsidiary	BOA etc.	Jun 13, 2023	-	-	-	404,000
SAVINA	Subsidiary	HSBC	Jun 13, 2023	-	-	-	51,000
SCIC	Subsidiary	HSBC etc.	Jun 13, 2023	-	-	-	300,000
SME	Subsidiary	SCB	Nov 08, 2022	-	-	-	110,000
SAMEX	Subsidiary	Citibank	Dec 16, 2022	-	-	-	5,000
SEASA	Subsidiary	Citibank	Dec 16, 2022	-	-	-	2,000
SSAP	Subsidiary	SCB	Nov 08, 2022	-	-	-	35,000
SEPM	Subsidiary	HSBC	Jun 13, 2023	-	-	-	35,000
SESAR	Subsidiary	HSBC	Jun 13, 2023	-	-	-	50,000
AdGear Technologies Inc.	Subsidiary	BOA	Nov 08, 2022	-	-	-	2,000
Harman International Industries, Inc.	Subsidiary	JP Morgan	Jun 13, 2023	-	-	-	100,000
Harman International Japan Co., Ltd.	Subsidiary	MUFG	Nov 08, 2022	-	-	-	25,000
Harman RUS CIS LLC	Subsidiary	SocGen	May 31, 2022	-	-	-	-
Harman Holding Limited	Subsidiary	HSBC	Jun 13, 2023	-	-	-	30,000

Harman do Brasil Industria Eletronica e Participacoes Ltda.	Subsidiary	SocGen	Nov 08, 2022	-	-	-	15,000
Harman da Amazonia Industria Eletronica e Participacoes Ltda.							
Harman International Industries Limited	Subsidiary	HSBC	Jun 13, 2023	-	-	-	35,000
Harman Finance International, SCA	Subsidiary	JP Morgan etc.	Mar 01, 2022	396,304	-396,304	-	-
SDN	Subsidiary	SIEL	Nov 22, 2024	571,121	-32,772	538,349	633,352
SAS	Subsidiary	Epcor	The date of debt expiration	-	-	-	340,000
Total				1,113,981	-173,128	940,853	9,184,997

- ※ Information above are prepared on a consolidated basis. Debt guarantees for Harman Finance International, SCA are provided by Harman International Industries, Inc., SDN by Samsung Display Co., Ltd., and SAS by SEA, respectively.
- ※ SEC requires Board approval for individual guarantees exceeding 2.5% of total equity. When the guarantee amount is between 0.1% and/or less than 2.5%, the approval decision is delegated to the Management Committee. Samsung Display Co., Ltd requires Board approval for individual guarantees over KRW 10,000 million.
- ※ SEC claims fees on the debt guarantees depending on the maturity date of each debt guarantee, general loan interest rate, etc.
In 2021, the Company claimed approximately USD 266,000 in guarantee fees and, as of the reporting date, has collected the amount.
In 2021, Samsung Display Co., Ltd. claimed approximately USD 2,529,000 in guarantee fees to SDN and, as of the reporting date, has collected the amount.

Refer to the notes to the consolidated financial statements for the information on contingent liabilities.

3. Sanctions and others

A. Sanctions of investigative and judicial agencies

[Summary]

(KRW mil)

Date	Agency	Subject	Punishment or measure	Amount of monetary sanction	Amount of embezzlement/breach of trust	Relevant laws
Apr 18, 2019.	Seoul Central District Court	Employees of SEC	Fine	100	-	Article 14 Paragraph 4 and Article 68 Subparagraph 4 of the Monopoly Regulation and Fair Trade Act
Dec 9, 2019	Seoul Central District Court (Appeal in progress)	Employees of SEC	Imprisonment	-	-	Article 155 Paragraph 1, Article 31 Paragraph 1, and Article 30 of the Criminal Act
Feb 14, 2020	Suwon District Court	SEC and employees of SEC	Fine	12	-	Articles 23, 24, 29, 67, 68, 70, 71, etc., of the former Occupational Safety and Health Act
Jan 25, 2021	Seoul High Court (Retrial)	Employees of SEC	Imprisonment	-	Approximately 8,681	Act on the Aggravated Punishment, etc. of Specific Economic Crimes
Feb 4, 2021	Supreme Court of Korea	Employees of SEC	Imprisonment	-	-	Articles 90, 81, etc., of the Trade Union and Labor Relations Adjustment Act
		Subsidiary and employees (Samsung Electronics Service)	Fine, Imprisonment	50	-	Articles 90, 81, etc., of the Trade Union and Labor Relations Adjustment Act, Article 10 of the Punishment of Tax Offenses Act
Jul 7, 2022	Gwangju District Court	Employees of SEC	Fine	6	-	Article 33 Paragraph 7, Article 34, Article 18 Paragraph 1, etc., of the Environmental Testing and Inspection Act

The Fair Trade Commission on November 21, 2018, filed a complaint against Chairman Kun-hee Lee for omitting Samoo Architects & Engineers and Seoyoung Engineering from Samsung affiliates when submitting required materials in 2014 under Article 14 Paragraph 4 of the Monopoly Regulation and Fair Trade Act, and the prosecution filed a summary indictment.

Chairman Kun-hee Lee on April 18, 2019, was ordered to pay a fine of KRW 100 million by the Seoul Central District Court, and the fine was subsequently paid.

On December 9, 2019, the Seoul Central District Court ruled on allegations that an SEC executive ordered executives and employees of Samsung Biologics and Samsung Bioepis to hide or destroy evidence related to the alleged fraudulent accounting. For violating Article 30, Article 31 Paragraph 1, and Article 155 Paragraph 1 of the Criminal Act, prison sentences were handed down to Executive Vice President K (27 service years) of 1 year and 6 months; Executive Vice President L (31 service years) of 1 year and 6 months; Executive Vice President M (9 service years) of 2 years; Vice President N (16 service years) of 1 year and 6 months and a 3-year suspended sentence; Vice President O (10 service years) of 1 year and 6 months and a 3-year suspended sentence.

An appeal against the decision has been filed. The Company will check on future developments of the court proceedings and relevant matters.

On February 14, 2020, regarding matters related to a CO₂ leak accident at the Giheung plant on September 4, 2018, the Suwon District Court ordered the Company to pay a fine of KRW 7 million and Executive Vice President P (27 service years), the person in general charge of safety and health, to pay KRW 5 million for violating Article 23 (Safety Measures), Article 24 (Health Measures), and Article 29 (Safety and Health Measures in Contracting) of the former Occupational Safety and Health Act, and the fines were subsequently paid.

To prevent recurrences and comply with the relevant law, the Company has strengthened the capabilities of its employees and partner companies to guarantee safety and health.

Regarding matters related to the allegations of violation of the Act on the Aggravated Punishment, etc., of Specific Economic Crimes (embezzlement) by five of the Company's executives (Vice Chairman Jae-yong Lee, former Vice Chairman Gee-sung Choi, former President Choong-ki Chang, former President Sang-jin Park, and former Senior Vice President Seong-soo Hwang) in the case of an influence-peddling scandal involving South Korea's president, the Supreme Court of Korea on August 29, 2019 rejected part of a lower court's ruling and ordered a retrial to the Seoul High Court. On January 18, 2021 at the retrial, the Seoul High Court sentenced Vice Chairman Jae-yong Lee, former Vice Chairman Gee-sung Choi, and former President Choong-ki Chang each to 2 years and 6 months in prison. Former President Sang-jin Park and former Senior Vice President Seong-soo Hwang each received sentences of 2 years and 6 months in prison and a 4-year suspended sentence. The judgments were confirmed on January 25, 2021.

To prevent recurrences, the Company has strengthened its process regarding external contributions and newly established the Samsung Compliance Committee, an external and independent organization.

On February 4, 2021, the Supreme Court dismissed an appeal regarding the violation of Articles 90 and 81 of the Trade Union and Labor Relations Adjustment Act by SEC and employees of SEC and confirmed the sentences of 1 year and 4 months for Executive Vice President A (29 service years), 1 year and 2 months and a 2-year suspended sentence for former Executive Vice President B, 10 months and a 2-year suspended sentence for Executive Vice President C (34 service years), 1 year and a 2-year suspended sentence for former Executive Vice President D, 1 year for Senior Vice President E (32 service years), 1 year and 2 months and a 2-year suspended sentence for Senior Vice President F (24 service years), 10 months and a 2-year suspended sentence for Vice President G (27 service years), 10 months and a 2-year suspended sentence for Vice President H (18 service years) as ordered by the Seoul High Court on August 10, 2020; and SEC and former SEC Chairman of the Board (39 service years) were pronounced not guilty. Moreover, regarding the violation of Articles 90 and 81 of the Trade Union and Labor Relations Adjustment Act and violation of Article 10 of the Punishment of Tax Offenses Act with regard to receiving fake tax invoices (amount of violation approximately KRW 1,678 million) by Samsung Electronics Service and employees, the court issued a penalty of KRW 50 million for Samsung Electronics Service (amount of tax collected is approximately KRW 97 million), and confirmed sentencing of prison terms for Samsung Electronics Service's former CEO (4 service years) of 1 year and 4 months, Senior Vice President I (11 service years) of 1 year, Vice President J (21 service years) of 10 months and a 2-year suspended sentence.

To prevent recurrence, the Company has specified the guarantee of labor's three primary rights in the code of conduct and provides education on the prevention of unfair labor practices to all employees.

On January 20, 2021, the Suncheon Branch of Gwangju District Court ordered SEC employees A (11 service years) and B (8 service years) to pay a fine of KRW 3 million each for violating Article 18, etc., of the Environmental Testing and Inspection Act, and on July 7, 2022 at the retrial, the Gwangju District Court dismissed the appeal. To prevent recurrence, the Company is conducting regular cross measurement, etc.

B. Sanctions of administrative agencies

(1) Sanctions of Fair Trade Commission (FTC)

[Summary]

(KRW mil)

Date	Agency	Subject	Punishment or measure	Amount of monetary sanction	Reasons and relevant laws
Oct 4, 2018	FTC	SEC	Corrective order, penalty surcharge	488	Article 3 (Prohibition, etc. against Unfair Labeling or Advertising) Paragraph 1 Subparagraph 2 of the Act on Fair Labeling and Advertising and Article 3 Paragraph 2 of the Enforcement Decree of the same Act
Nov 21, 2018	FTC	Employees of SEC	Prosecution charge	-	Article 14 (Designation of Business Groups Subject to Limitations on Cross Shareholding) Paragraph 4 of the Monopoly Regulation and Fair Trade Act
Aug 23, 2019	FTC	SEC	Corrective measure, fine	0.5	Article 5 Paragraph 4 (Duty to Provide Online Completion Service) and Article 10 Paragraph 1 (Cybermall Operators' Indication Duty) of the Act on the Consumer Protection in Electronic Commerce, etc.
Jun 22, 2021	FTC	SEC and employees of SEC	Prosecution charge	-	Article 23 (Prohibition on Unfair Trade Practices) Paragraph 1 Subparagraph 7 of the Monopoly Regulation and Fair Trade Act
Aug 27, 2021	FTC	SEC	Corrective measure, penalty surcharge	101,217	Article 23 (Prohibition on Unfair Trade Practices) Paragraph 1 Subparagraph 7 of the Monopoly Regulation and Fair Trade Act
		Subsidiary (Samsung Display)	Corrective measure, penalty surcharge	22,857	Article 23 (Prohibition on Unfair Trade Practices) Paragraph 1 Subparagraph 7 of the Monopoly Regulation and Fair Trade Act
Nov 17, 2021	FTC	Subsidiary (Samsung Electronics Service CS)	Fine	2.4	Article 11-4 (Disclosure of Status of Business Groups) of the Monopoly Regulation and Fair Trade Act
Mar 17, 2022	FTC	Employees of SEC	Warning	-	Article 31 (Designation of Business Groups Subject to Limitations on Cross Shareholding) Paragraph 4 of the Monopoly Regulation and Fair Trade Act
Jun 27, 2022	FTC	SEC	Fine	10	Article 5 (Duty to Prepare Agency Transaction Contract) Paragraph 1 of the Fair Agency Transactions Act

On October 4, 2018, regarding matters related to the advertising of the Company's air purifying products, including air purifiers, the Fair Trade Commission issued a corrective order against the Company and ordered the Company to pay a penalty surcharge of KRW 488 million for violating Article 3 (Prohibition, etc., against Unfair Labeling or Advertising) Paragraph 1 Subparagraph 2 of the Act on Fair Labeling and Advertising and Article 3 Paragraph 2 of the Enforcement Decree of the same Act, and the Company has subsequently paid the fine. In litigation to cancel the order, the Supreme Court on March 11, 2021 ruled partially in favor of the Company.

The Fair Trade Commission on November 21, 2018, filed a complaint against Chairman Kun-hee Lee for omitting Samoo Architects & Engineers and Seoyoung Engineering from Samsung affiliates when submitting required materials in 2014 under Article 14 (Designation of Business Groups Subject to Limitations on Cross Shareholding) Paragraph 4 of the Monopoly Regulation and Fair Trade Act.

※ Please refer to 『A. Sanctions of investigative and judicial agencies』 for more information, such as the details of the punishment.

On August 23, 2019, regarding matters related to Milk Music, the Fair Trade Commission issued corrective measures against the Company and ordered the Company to pay a fine of KRW 0.5 million under the Act on the Consumer Protection in Electronic Commerce, etc., for violating Article 5 Paragraph 4 (Duty to Provide Online Completion Service) and Article 10 Paragraph 1 (Cybermall Operators' Indication Duty). The Company subsequently paid the fine.

On June 22, 2021, the Fair Trade Commission, regarding matters related to food service transactions with Samsung Welstory, filed a complaint against the Company and the former Head of Future Strategy Office Gee-sung Choi, a retiree, for violating Article 23 (Prohibition on Unfair Trade Practices) Paragraph 1 Subparagraph 7 of the Monopoly Regulation and Fair Trade Act.

On August 27, 2021, the Fair Trade Commission, regarding matters related to food service transactions with Samsung Welstory, issued corrective measures and ordered Samsung Electronics and Samsung Display to pay penalties (SEC: KRW 101.217 billion; SD: 22.857 billion) for violating Article 23 Paragraph 1 Subparagraph 7 of the Act of the Monopoly Regulation and Fair Trade Act. The administrative litigation against the disposition is in progress, and on January 27, 2022, the decision to suspend the execution of the corrective measures was finalized.

On November 5, 2021, the Fair Trade Commission, regarding a voluntary correction disclosure of Status of Large Business Groups (omission of member of the Board of Directors) of the Company's subsidiary, Samsung Electronics Service CS, ordered the company to pay a fine of KRW 2.4 million for violating Article 11-4 (Disclosure of Status of Business Groups) of the Monopoly Regulation and Fair Trade Act, and on November 17, 2021, the company has subsequently paid the fine.

To prevent recurrences and comply with the relevant law, Samsung Electronics Service CS has strengthened its internal management standard, including adding more people in charge.

On March 17, 2022, the Fair Trade Commission issued a warning against SEC's Vice Chairman Jae-yong Lee for omitting three companies—Balbec KPL Korea, Balbec KPL Partners, and Balbec KPL Asset Management—controlled by an Independent Director of Samsung Card from the affiliate list of Samsung, a business group subject to limitations on cross shareholding, when submitting materials in 2018 and 2019 pursuant to Article 31 Paragraph 4.

On June 27, 2022, the Fair Trade Commission ordered the Company to pay a fine of KRW 10 million for violating Article 5 (Duty to Prepare Agency Transaction Contract) Paragraph 1 of the Fair Agency Transactions Act, and the Company is in the middle of a procedure to object to the order.

To comply with the Monopoly Regulation and Fair Trade Act, the Act on Fair Labeling and Advertising, Fair Agency Transactions Act, and relevant laws, the Company has strengthened its internal management standard and is providing relevant prevention education for executives and employees.

(2) Sanctions of other administrative or public agencies (including financial supervision and tax authorities)

[Summary]

(KRW mil)

Date	Agency	Subject	Punishment or measure	Amount of monetary sanction	Reasons and relevant laws
Jan 18, 2019	Yongin Fire Station	SEC (Giheung site)	Fine	0.5	Article 20 (Fire Safety Control of Specific Objects of Fire Service) Paragraph 6 of the Act on Fire Prevention and Installation, Maintenance, and Safety Control of Firefighting Systems
Jan 3, 2019–Feb 23, 2022	Ministry of Employment and Labor	SEC (Pyeongtaek, Onyang, Cheonan, Giheung/Hwaseong sites)	Fine	14.7	Article 48 (Submission of Hazard Prevention Plans) Paragraph 1 of the former Occupational Safety and Health Act, Article 46 (Implementation of Process-Safety Reports) Paragraph 1, etc., of the Occupational Safety and Health Act
Dec 2, 2019–Dec 28, 2020	Ministry of Employment and Labor	SEC (Gwangju site)	Fine	386.3	Article 41 (Preparation and Keeping of Material Safety Data Sheets) Paragraph 3, Article 10 (Record and Report of Industrial Accidents) Paragraph 2, etc., of the former Occupational Safety and Health Act, Article 57 (Prohibition on Concealing Occurrence of Industrial Accidents and Reporting Thereof) Paragraph 3, Article 164 (Retention of Documents) Paragraph 1, etc., of the Occupational Safety and Health Act

Date	Agency	Subject	Punishment or measure	Amount of monetary sanction	Reasons and relevant laws
Mar 2, 2021	Ministry of Environment	SEC (Gwangju site)	Cancellation of designation of green enterprise	-	Article 16-3 (Cancellation of Designation of Green Enterprise) Paragraph 1 Subparagraph 1 of the Environmental Technology and Industry Support Act
Aug 10, 2021	Ministry of Justice	SEC	Fine	0.1	Article 19 (Obligation to Report by Employers of Aliens) of the Immigration Act
Jul 8, 2020	Korea Communications Commission	Subsidiary (Samsung Electronics Sales)	Corrective order, fine	36	Article 3 (Prohibition of Discriminative Subsidy Payment) Paragraph 1 and Article 4 (Restriction on Payment of Excessive Subsidies and Public Announcement) Paragraph 5 of the Mobile Device Distribution Improvement Act
Sep 18, 2020	Ministry of Employment and Labor	Subsidiary (Samsung Electronics Sales)	Suspension of construction work order, fine	5	Article 55 (Measures for Suspension of Work by the Minister of Employment and Labor in Cases of Serious Accidents) and Article 68 (Safety and Health Coordinators) Paragraph 1 of the Occupational Safety and Health Act
Apr 1, 2021	Ministry of Employment and Labor	Subsidiary (Samsung Electronics Service CS)	Fine	1	Article 15 (Reporting, etc. on Insured Status) of the Employment Insurance Act
Sep 29, 2021	Ministry of Employment and Labor	Subsidiary (Samsung Electronics Service)	Partial suspension of work order, fine	14	Article 16 (Supervisors) Paragraph 1, Article 41 (Measures for Preventing Health Impairments Caused by Abusive Language of Customers) Paragraph 7, Article 53 (Corrective Measures by Minister of Employment and Labor) Paragraph 3, and Article 114 (Posting of Material Safety Data Sheets and Education) Paragraph 3 of the Occupational Safety and Health Act
Nov 23, 2021	Ministry of Employment and Labor	Subsidiary (Samsung Display)	Fine	0.2	Article 46 (Implementation of Process-Safety Reports) Paragraph 1 of the Occupational Safety And Health Act

With regards to a CO₂ leak accident at the Giheung plant on September 4, 2018, pursuant to the results of a special investigation by the Yongin Fire Station conducted from November 27 through December 6, 2018, the Company was ordered to pay a fine of KRW 0.5 million for violating Article 20 Paragraph 6 of the Occupational Safety and Health Act on January 18, 2019, and the Company has subsequently paid the fine.

To prevent recurrence and strengthen compliance, the Company has built a legal safety assessment evaluation system and conducts regular assessment.

Pursuant to the results of the 2nd process safety management (PSM) inspection on the Pyeongtaek site (P1-2) by the Ministry of Employment and Labor over September 10 through September 13, 2018, the Company was ordered to pay a fine of KRW 10 million for violating Article 48 (Submission, etc. of Plans for Prevention of Harm and Dangers) Paragraph 1 of the former Occupational Safety and Health Act on January 3, 2019 and has subsequently paid the fine.

Pursuant to results of monitoring the implementation of a PSM system on the Onyang site by the Ministry of Employment and Labor on February 19, 2020, the Company was ordered to pay a fine of KRW 0.2 million for violating Article 46 (Implementation of Process-Safety Reports) Paragraph 1, etc., of the Occupational Safety and Health Act on February 25, 2020 and has subsequently paid the fine.

Pursuant to results of monitoring the implementation of a PSM system on the Cheonan site by the Ministry of Employment and Labor from May 26–28, 2020, the Company was ordered to pay a fine of KRW 0.9 million for violating Article 46 (Implementation of Process-Safety Reports) Paragraph 1, etc., of the Occupational Safety and Health Act on June 29, 2020 and has subsequently paid the fine.

Pursuant to results of monitoring the implementation of a PSM system on the Pyeongtaek site by the Ministry of Employment and Labor from November 16–18, 2020, the Company was ordered to pay a fine of KRW 2.1 million for

violating Article 46 (Implementation of Process-Safety Reports) Paragraph 1, etc., of the Occupational Safety and Health Act on November 26, 2020 and has subsequently paid the fine.

Pursuant to results of monitoring the implementation of a PSM system on the Giheung·Hwaseong site by the Ministry of Employment and Labor from December 7–11, 2020, the Company was ordered to pay a fine of KRW 0.9 million for violating Article 46 (Implementation of Process-Safety Reports) Paragraph 1, etc. of the Occupational Safety and Health Act on December 14, 2020 and has subsequently paid the fine.

Pursuant to the regular assessment of the implementation of a PSM system at the Onyang site by the Ministry of Employment and Labor from February 21–23, 2022, the rating went up by one stage, but the Company was ordered to pay a fine of KRW 0.6 million for violating Article 46 (Implementation of Process-Safety Reports) Paragraph 1 of the Occupational Safety and Health Act on April 21, 2022 and has subsequently paid the fine.

The Company took measures regarding the violations above and submitted a report on improvements to the Ministry of Employment and Labor. We also established a PSM Innovation Organization and a PSM Management System which manages activities related to approval, design, 12 key tasks, expertise improvement, etc. We also foster development of on-site process safety experts and conduct voluntary process safety evaluation.

Following the investigation on MSDS warning signs compliance on November 28, 2019 at Gwangju office by the Ministry of Employment and Labor, the Company on December 2, 2019, was ordered to pay a fine of KRW 1.4 million for violating Article 41 (Preparation, Keeping, etc. of Material Safety Data Sheets) Paragraph 3, etc., of the Occupational Safety and Health Act, and has subsequently paid the fine. (Paragraph 3 has since been deleted.) We conducted a company-wide investigation on the handling space of chemical substances and implemented relevant improvement measures. In addition, we are improving the prior evaluation process on new G-EHS chemical substances and providing education for supervisors in departments handling chemical substances.

Regarding the industrial incident at Gwangju site on May 19, 2020, the Company delayed the submission of industrial accident questionnaire to the Gwangju Regional Employment and Labor Office of the Ministry of Employment and Labor and as a result was ordered to pay a fine of KRW 7 million for violating Article 57 (Prohibition of Concealment; Reporting of Incidents) Paragraph 3 of Occupational Safety and Health Act on June 26, 2020, and the Company has subsequently paid the fine.

To prevent the recurrence and strengthen compliance, the Company has provided special education for the on-site environment and safety managers and supervisors.

With regards to the investigation from August 18, 2020 to January 18, 2021 by the Gwangju Regional Employment and Labor Office of Ministry of Employment and Labor on the Gwangju operation, the Company was ordered to pay the following fines regarding industrial incidents that have taken place since 2015: KRW 6 million for violating Article 10 (Recording and Reporting of Industrial Accidents) Paragraph 2 of the Occupational Safety and Health Act on September 1, 2020 (Paragraph 2 has since been deleted); KRW 60.4 million and 11.5 million, respectively, for violating Article 57 (Prohibition of Concealment; Reporting of Incidents) Paragraph 3 and Article 164 (Preservation of Documents) Paragraph 1 of the Occupational Safety and Health Act on September 10 and 23, 2020. The Company has subsequently paid the fines. Other fines include: KRW 20 million for violating Article 57 (Prohibition of Concealment; Reporting of Incidents) Paragraph 3 of the Occupational Safety and Health Act on October 19, 2020; and KRW 280 million for violating Article 10 (Prohibition of Concealment; Reporting of Incidents) Paragraph 2 of the former Occupational Safety and Health Act on December 28, 2020. The Company subsequently paid the fines.

To prevent the recurrence and strengthen compliance, the Company has provided special education for the on-site environment and safety managers and supervisors.

On March 2, 2021, Yeongsangang River Basin Environmental Office of Ministry of Environment, based on its air pollutant measurement, cancelled the Green Enterprise designation on our Gwangju site in pursuant to Article 16-3 (Cancellation of Designation of Green Enterprise) Paragraph 1 Subparagraph 1 of the Environmental Technology and Industry Support Act.

To enhance the credibility of the measurement, the Company is conducting regular cross measurement, etc.

On August 10, 2021, the Suwon Immigration Office ordered the Company to pay a fine of KRW 100,000 for violating the obligation to report changes to the employment status of non-Korean employees under Article 19 (Obligation to Report by Employers of Aliens) Paragraph 1 of the Immigration Act and the Company has subsequently paid the fine.

To strengthen compliance of the deadline for reporting changes in employment of non-Korean employees no longer employed by the Company, the Company has improved the exit process.

Korea Communications Commission ordered Samsung Electronics Sales to implement corrective measures and to pay a fine of KRW 36 million for violating Article 3 (Prohibition of Discriminative Subsidy Payment) Paragraph 1 and Article 4 (Restriction on Payment of Excessive Subsidies and Public Announcement) Paragraph 5 of the Mobile Device Distribution Improvement Act on July 8, 2020 and have subsequently paid the fine.

In order to prevent reoccurrences and comply with the relevant law, Samsung Electronics Sales strengthened its internal management standard, provided education for executives and employees.

Regarding a fatal accident on September 16, 2020 during the construction of an elevator wall structure, part of the construction process of newly-opening Hongdae branch of Samsung Digital Plaza, a site inspection was conducted on September 17, 2020 and Seoul West District Office of Seoul Regional Employment and Labor Office of Ministry of Employment and Labor on September 18, 2020 ordered Samsung Electronics Sales to suspend construction in pursuant to Article 55 (Suspension, etc. of Work on Occurrence of Serious Accidents) of the Occupational Safety and Health Act. In addition, Samsung Electronics Sales was ordered to pay a fine of KRW 5 million for violating Article 68 (Safety and Health Coordinator) Paragraph 1 of the Occupational Safety and Health Act and has subsequently paid the fine, and the Company appointed a safety and health coordinator.

To prevent reoccurrences and comply with the relevant law, Samsung Electronics Sales provided a special training for on-site safety managers and supervisors.

On April 1, 2021, Samsung Electronics Service CS was ordered by the Jungbu Regional Employment and Labor Office of Ministry of Employment and Labor to pay a fine of KRW 1 million for the delayed report of the attainment of the employment insurance, violating Article 15 (Reporting, etc. on Insured Status) of the Employment Insurance Act, and the Company has subsequently paid the fine.

To prevent reoccurrences and strengthen compliance, Samsung Electronics Service CS is monitoring the revision of the Employment Insurance Act periodically and providing education for managers.

Regarding an electrocution accident of a worker who was repairing a washing machine on September 28, 2021, the Southern Seoul District Office of the Seoul Regional Employment and Labor Office of the Ministry of Employment and Labor ordered Samsung Electronics Service on September 29, 2021 to partially suspend work in pursuant to Article 53 (Corrective Measures by Minister of Employment and Labor) of the Occupational Safety and Health Act.

In response, Samsung Electronics Service submitted plans to improve safety and health measures for all of its domestic worksites, and the order of partial suspension was withdrawn on November 10, 2021.

Moreover, on November 15, 2021, Samsung Electronics Service was ordered to pay fines of KRW 14 million in total for violating Article 16 (Supervisors) Paragraph 1, Article 41 (Measures for Preventing Health Impairments Caused by Abusive Language of Customers) Paragraph 7, and Article 114 (Posting of Material Safety Data Sheets and Education) Paragraph 3 of the Occupational Safety and Health Act, and on December 28, 2021, it has subsequently paid the fine.

Pursuant to results of monitoring the implementation of a PSM system at the Giheung site by the Ministry of Employment and Labor from November 15–16, 2021, Samsung Display was ordered to pay a fine of KRW 0.16 million for violating Article 46 (Implementation of Process-Safety Reports) Paragraph 1, etc., of the Occupational Safety and Health Act on November 23, 2021 and has subsequently paid the fine.

C. Sanctions from Korea Exchange

- N/A

D. Return of short-swing profits

- N/A

4. Subsequent events and other matters

A. Subsequent events

- N/A

B. External contributions

Contribution	Amount	Details	Date of Board approval
Contribution to Samsung Dream Scholarship Foundation	KRW 1.12 billion	<ul style="list-style-type: none"> The contribution was made to support education of low-income high school students. 	Jan 30, 2020
Management plans for Social Contribution Fund for 2020	KRW 11.89 billion	<ul style="list-style-type: none"> The Social Contribution Fund consists of voluntary contributions of employees and matching funds raised by SEC. SEC plans to contribute KRW 11.89 billion in matching funds for 2020. The contribution was made to support adolescent education. 	Feb 21, 2020
Donation to Chung-nam Samsung Institute	KRW 2.576 billion	<ul style="list-style-type: none"> The contribution was made to improve education of the region. 	
Donation to support emergency relief related to COVID-19	KRW 23.0 billion	<ul style="list-style-type: none"> The contribution was made to support emergency relief measures for persons and communities impacted by COVID-19. 	Feb 26, 2020
Donation to Samsung Welfare Foundation, etc.	KRW 51.8 billion	<ul style="list-style-type: none"> The contribution was made to support Dream Class, a program to support learning for underprivileged middle school students (Samsung Welfare Foundation, KRW 10.6 billion) The contribution was made to improve facilities and research infrastructure at Samsung Medical Center and support research for MERS vaccine development (Samsung Life Public Welfare Foundation, KRW 26.5 billion) The contribution was made for the Ho-Am Prize (Ho-Am Foundation) The contribution was made to provide funds for legal expenses for faculty members and Samsung scholarships for students (Sungkyunkwan University, KRW 14.7 billion) 	Apr 29, 2020
Performance incentive to suppliers of the DS division	Approximately KRW 62.0 billion	<ul style="list-style-type: none"> The incentive was provided to prevent safety incidents at sites, enhance productivity, and promote co-growth with suppliers For the first and secondary suppliers of the DS division stationed at the sites 	
Donation to Ho-Am Foundation	KRW 4.1 billion	<ul style="list-style-type: none"> The contribution was made to help award those with significant contributions in the field of academia, art, and human welfare 	May 27, 2020
Donation to Heemang 2021 Nanum Campaign	KRW 33.8 billion	<ul style="list-style-type: none"> The contribution was made to Community Chest of Korea to fulfill corporate social responsibilities and help the marginalized. 	
Contribution to the United Nations Development Programme (Samsung Global Goals)	USD 1,421,154 (approximately KRW 1.57 billion)	<ul style="list-style-type: none"> The contribution was made to the UNDP (United Nations Development Programme) for relief activities in different countries. 	Nov 30, 2020
Management plans for Social Contribution Fund for 2021	KRW 11.61 billion	<ul style="list-style-type: none"> The Fund consists of voluntary contributions of employees and matching funds raised by SEC. SEC plans to contribute KRW 11.61 billion in matching funds in 2021. The contribution will be used for educating adolescents and vulnerable population. 	Feb 16, 2021
Donation to Chung-nam Samsung Institute	KRW 2.446 billion	<ul style="list-style-type: none"> The contribution was made to improve education of the region. 	
Donation to Samsung Welfare Foundation, etc.	KRW 60.1 billion	<ul style="list-style-type: none"> The contribution was made to support Dream Class, a program to support learning for underprivileged middle school students (Samsung Welfare Foundation, KRW 11.5 billion) The contribution was made to support facilities and research infrastructure at Samsung Medical Center and support the operation of emergency helicopters (Samsung Life Public Welfare Foundation, KRW 29.9 billion) The contribution was made to provide funds for legal expenses for faculty members and Samsung scholarships for students (Sungkyunkwan University, KRW 15 billion) The contribution was made to help award those with significant contributions in the field of academia, art, and human welfare (Ho-Am Foundation, KRW 3.7 billion) 	Apr 29, 2021
Performance incentive to suppliers of the DS division	Approximately KRW 63.2 billion	<ul style="list-style-type: none"> The incentive was provided to prevent safety incidents at sites, enhance productivity, and promote co-growth with suppliers For the first and secondary suppliers of the DS division stationed at the sites 	

Contribution	Amount	Details	Date of Board approval
Sponsoring the WorldSkills Competition	EUR 1.5 million (approximately KRW 2.09 billion)	<ul style="list-style-type: none"> The contribution was made to support WorldSkills International and WorldSkills Shanghai 2020. 	Oct 28, 2021
Contribution to Joint Investment Technology Development Agreement Fund	KRW 15 billion	<ul style="list-style-type: none"> Participated in Joint Investment Technology Development Agreement Fund supervised by the Ministry of SMEs and Startups. The contribution was made to establish an agreement fund with the Ministry of SMEs and Startups, which will be allocated to chosen SMEs based on evaluations of tasks related to robotics, AI, biohealth, system semiconductors, and domestic production of materials, parts, and equipment. 	Oct 28, 2021
Donation to Heemang 2022 Nanum Campaign	KRW 25.6 billion	<ul style="list-style-type: none"> The contribution was made to Community Chest of Korea to fulfill corporate social responsibilities and help the marginalized. 	Nov 30, 2021
Contribution to the United Nations Development Programme (Samsung Global Goals)	USD 2,689,094 (approximately KRW 3.20 billion)	<ul style="list-style-type: none"> The contribution was made to the UNDP (United Nations Development Programme) for relief activities in different countries. 	Nov 30, 2021
Management plans for Social Contribution Fund for 2022	KRW 11.75 billion	<ul style="list-style-type: none"> The Fund consists of voluntary contributions of employees and matching funds raised by SEC. SEC plans to contribute KRW 11.75 billion in matching funds in 2022. The contribution will be used for educating adolescents and vulnerable population. 	Feb 15, 2022
Donation to Chung-nam Samsung Institute	KRW 2.324 billion	<ul style="list-style-type: none"> The contribution was made to improve education of the region. 	
Donation to Samsung Welfare Foundation, etc.	KRW 46.8 billion	<ul style="list-style-type: none"> The contribution was made to support Dream Class, a program to support learning for underprivileged middle school students (Samsung Welfare Foundation, KRW 4.4 billion) The contribution was made to support the construction expenses for the renovation of Samsung Medical Center (Samsung Life Public Welfare Foundation, KRW 23.2 billion) The contribution was made to provide funds for legal expenses for faculty members and Samsung scholarships for students (Sungkyunkwan University, KRW 15 billion) The contribution was made to help award those with significant contributions in the field of academia, art, and human welfare (Ho-Am Foundation, KRW 4.2 billion) 	Apr 28, 2022
Performance incentive to suppliers of the DS division	Approximately KRW 74.0 billion	<ul style="list-style-type: none"> The incentive was provided to prevent safety incidents at sites, enhance productivity, and promote co-growth with suppliers For the first and secondary suppliers of the DS division stationed at the sites 	

External contributions are based on a resolution of the Board.

C. Green management

The Company is actively securing “Designation of Green Enterprise” and “Green Technology Certifications” to follow the Low Carbon Green Growth policy of the Korean government. In particular, greenhouse gas emission and energy consumption generated at our operations are reported to the government, required by relevant law. Also, relevant information are provided transparently to stakeholders through the Sustainability Report, etc.

(Designation of Green Enterprise)

The Company strives to fulfill its responsibility as an eco-friendly enterprise by reducing pollutants, conserving resources and energy, establishing/utilizing a green management system, etc. As of June 30, 2022 (on a separate basis), our business sites in Suwon, Gumi, Giheung, Hwaseong, Pyeongtaek, and Onyang have been designated as green enterprises in accordance with Article 16-2 (Designation, etc., of Green Enterprise) of the Environmental Technology and Industry Support Act. In March, the Green Enterprise designation was cancelled for Gwangju site in pursuant to Article 16-3 (Cancellation of Designation of Green Enterprise) Paragraph 1 Subparagraph 1 of the Environmental Technology and Industry Support Act.

(Green Technology Certification)

The Company is acquiring Green Technology Certifications in accordance with Article 32 (Standardization and Certification and Green Technology Green Industries) Paragraph 2 of the Framework Act on Low Carbon Green Growth. By concentrating on developing eco-friendly products and expanding the supply of these products with our “Planet First” strategy, which strives to conduct business activities in a manner that respect people and the nature, the Company, as of June 30, 2022, has secured 10 valid Green Technology Certifications since the certification system was introduced in 2010. In addition, the Company has acquired ‘Green Technology’ product certificates for 123 models of commercialized products.

Certified Green Technologies as of June 30, 2022 are as follows:

Division	Certified Green Technologies	Number
DX	Technology to: 1) reduce stand-by power use by laptops utilizing high-efficiency power conversion technology; 2) enhance energy efficiency of dryers using high-efficiency heat pump and heat exchanger; and 3) reduce stand-by power use by monitors etc.	10

Separate basis.

(Greenhouse gas emission and energy consumption management)

The Company is a “controlled entity” according to Article 42 (Coping with Climate Change and Management of Targets for Energy) Paragraph 6 of the Framework Act on Low Carbon, Green Growth. Thus, the Company has been reporting the amount of greenhouse gas emission and energy consumption, verified by a third-party, to the authorities and disclosing it to stakeholders according to Article 44 (Reporting on Quantity of Greenhouse Gases Emitted and Quantity of Energy Consumed) of the same Act since May 2011.

The reported amount of greenhouse gas emission and energy use on a separate basis are provided below:

(Unit: tCO₂-eq, TJ)

	2021	2020	2019
Greenhouse gas (tCO ₂ -eq)	14,494,447	12,532,779	11,143,405
Energy (TJ)	200,500	177,122	161,123

Separate basis.

Domestic manufacturing facilities, office buildings, buildings owned by the Company, leased buildings, etc.

Reported Greenhouse gas emission excludes ozone depletion substances (ODS).

Amounts may differ based on the result of governmental evaluations on emissions.

From 2015, in accordance with Article 8 (Designation of Business Entities Eligible for Allocation) of the Act on the Allocation and Trading of Greenhouse-Gas Emission Permits, the Company is an eligible business entity under the Act.

XII. Appendix

1. Subsidiaries subject to consolidated financial statements (detailed)

As of June 30, 2022, Samsung Electronics' consolidated subsidiaries numbered 233 with the addition of 6 subsidiaries and reduction of 1 subsidiary when compared to totals as of December 31, 2021. Below is the list of consolidated subsidiaries.

(KRW mil)

Subsidiary	Date established	Major business	Assets as of Dec 31, 2021	Ownership	Classified as major subsidiary (Y/N)
Samsung Electronics America, Inc. (SEA)	Jul 1978	Electronic goods sales	42,982,054	Over 50%	Y
Samsung International, Inc. (SII)	Oct 1983	Electronic goods production	2,064,637	Over 50%	Y
Samsung Mexicana S.A. de C.V (SAMEX)	Mar 1988	Electronic goods production	63,019	Over 50%	N
Samsung Electronics Home Appliances America, LLC (SEHA)	Aug 2017	Home appliance production	763,537	Over 50%	Y
Samsung Research America, Inc (SRA)	Oct 1988	R&D	748,415	Over 50%	Y
SAMSUNG NEXT LLC (SNX)	Aug 2016	Subsidiary management (overseas)	177,851	Over 50%	Y
SAMSUNG NEXT FUND LLC (SNXF)	Aug 2016	Tech/emerging-tech venture firm investments	248,020	Over 50%	Y
NeuroLogica Corp.	Feb 2004	Medical device production and sales	211,236	Over 50%	Y
Samsung HVAC America, LLC	Jul 2001	Air conditioner sales	59,622	Over 50%	N
Joyent, Inc.	Mar 2005	Cloud services	180,789	Over 50%	Y
Dacor Holdings, Inc.	Dec 1998	Subsidiary management (overseas)	27,464	Over 50%	N
Dacor, Inc.	Mar 1965	Home appliance production and sales	27,441	Over 50%	N
Dacor Canada Co.	Jun 2001	Home appliance sales	-	Over 50%	N
SmartThings, Inc.	Apr 2012	Smart home platform	179,239	Over 50%	Y
TeleWorld Solutions, Inc. (TWS)	May 2002	Network equipment installation and optimization	26,061	Over 50%	N
Samsung Semiconductor, Inc. (SSI)	Jul 1983	Semiconductor and display panel sales	13,744,799	Over 50%	Y
Samsung Austin Semiconductor LLC. (SAS)	Feb 1996	Semiconductor production	8,705,085	Over 50%	Y
Samsung Oak Holdings, Inc. (SHI)	Jun 2016	Subsidiary management (overseas)	380,569	Over 50%	Y
SEMES America, Inc.	Oct 1998	Semiconductor equipment services	2,070	Over 50%	N
Samsung Electronics Canada, Inc. (SECA)	Jul 1980	Electronic goods sales	1,861,549	Over 50%	Y
AdGear Technologies Inc.	Aug 2010	Digital advertising platform	103,625	Over 50%	Y
Samsung Eletronica da Amazonia Ltda. (SEDA)	Jan 1995	Electronic goods production and sales	4,589,505	Over 50%	Y
Samsung Electronics Mexico S.A. De C.V. (SEM)	Jul 1995	Electronic goods sales	1,417,629	Over 50%	Y
Samsung Electronics Digital Appliance Mexico, SA de CV (SEDAM)	Dec 2012	Home appliance production	944,189	Over 50%	Y
Samsung Electronics Latinoamerica (Zona Libre), S. A. (SELA)	Apr 1989	Electronic goods sales	1,247,421	Over 50%	Y
Samsung Electronics Latinoamerica Miami, Inc. (SEMI)	May 1995	Electronic goods sales	434,912	Over 50%	Y
Samsung Electronica Colombia S.A. (SAMCOL)	Mar 1997	Electronic goods sales	601,744	Over 50%	Y
Samsung Electronics Argentina S.A. (SEASA)	Jun 1996	Marketing and services	72,793	Over 50%	N
Samsung Electronics Chile Limitada (SECH)	Dec 2002	Electronic goods sales	737,184	Over 50%	Y
Samsung Electronics Peru S.A.C. (SEPR)	Apr 2010	Electronic goods sales	363,052	Over 50%	Y

Subsidiary	Date established	Major business	Assets as of Dec 31, 2021	Ownership	Classified as major subsidiary (Y/N)
Samsung Electronics Venezuela, C.A. (SEVEN)	May 2010	Marketing and services	5	Over 50%	N
Samsung Electronics Panama, S.A. (SEPA)	Jul 2012	Consulting	3,022	Over 50%	N
Harman International Industries, Inc.	Jan 1980	Subsidiary management (overseas)	16,641,325	Over 50%	Y
Harman Becker Automotive Systems, Inc.	Jun 1981	Audio product production, sales, and R&D	7,888,591	Over 50%	Y
Harman Connected Services, Inc.	Feb 2002	Connected Service Provider	2,115,037	Over 50%	Y
Harman Connected Services Engineering Corp.	Sep 2004	Connected Service Provider	225	Over 50%	N
Harman da Amazonia Industria Eletronica e Participacoes Ltda.	Jul 2005	Audio product production and sales	53,360	Over 50%	N
Harman de Mexico, S. de R.L. de C.V.	Feb 1997	Audio product production	135,106	Over 50%	Y
Harman do Brasil Industria Eletronica e Participacoes Ltda.	Nov 1958	Audio product sales and R&D	230,102	Over 50%	Y
Harman Financial Group LLC	Jun 2004	Management Company	22,651	Over 50%	N
Harman International Industries Canada Ltd.	May 2005	Audio product sales	180	Over 50%	N
Harman International Mexico, S. de R.L. de C.V.	Dec 2014	Audio product sales	22,143	Over 50%	N
Harman KG Holding, LLC	Mar 2009	Subsidiary management (overseas)	-	Over 50%	N
Harman Professional, Inc.	Jul 2006	Audio product sales and R&D	810,140	Over 50%	Y
Beijing Integrated Circuit Industry International Fund, L.P	Dec 2014	Venture firm investments	13,192	Over 50%	N
China Materialia New Materials 2016 Limited Partnership	Sep 2017	Venture firm investments	7,200	Over 50%	N
Samsung Electronics (UK) Ltd. (SEUK)	Jul 1995	Electronic goods sales	2,925,062	Over 50%	Y
Samsung Electronics Ltd. (SEL)	Jan 1999	Subsidiary management (overseas)	7,030	Over 50%	N
Samsung Semiconductor Europe Limited (SSEL)	Apr 1997	Semiconductor and display panel sales	95,032	Over 50%	Y
Samsung Electronics GmbH (SEG)	Dec 1984	Electronic goods sales	2,289,391	Over 50%	Y
Samsung Electronics Holding GmbH (SEHG)	Feb 1982	Subsidiary management (overseas)	395,130	Over 50%	Y
Samsung Semiconductor Europe GmbH (SSEG)	Dec 1987	Semiconductor and display panel sales	1,200,667	Over 50%	Y
Samsung Electronics France S.A.S (SEF)	Jan 1988	Electronic goods sales	1,727,313	Over 50%	Y
Samsung Electronics Italia S.P.A. (SEI)	Apr 1991	Electronic goods sales	1,477,767	Over 50%	Y
Samsung Electronics Iberia, S.A. (SESA)	Jan 1989	Electronic goods sales	1,208,209	Over 50%	Y
Samsung Electronics Portuguesa, Unipessoal, Lda. (SEP)	Sep 1982	Electronic goods sales	271,224	Over 50%	Y
Samsung Electronics Hungarian Private Co. Ltd. (SEH)	Oct 1989	Electronic goods production and sales	2,504,075	Over 50%	Y
Samsung Electronics Europe Logistics B.V. (SELS)	May 1991	Logistics	2,305,275	Over 50%	Y
Samsung Electronics Benelux B.V. (SEBN)	Jul 1995	Electronic goods sales	2,612,357	Over 50%	Y
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	Oct 2008	Subsidiary management (overseas)	14,651,496	Over 50%	Y
Samsung Electronics Nordic Aktiebolag (SENA)	Mar 1992	Electronic goods sales	1,408,535	Over 50%	Y
Samsung Electronics Slovakia s.r.o (SESK)	Jun 2002	TV and monitor production	1,644,977	Over 50%	Y
Samsung Display Slovakia, s.r.o. (SDSK)	Mar 2007	Display panel processing	28,711	Over 50%	N
Samsung Electronics Polska, SP.Zo.o (SEPOL)	Apr 1996	Electronic goods sales	1,141,465	Over 50%	Y
Samsung Electronics Poland Manufacturing SP.Zo.o (SEPM)	Feb 2010	Home appliance production	525,067	Over 50%	Y

Subsidiary	Date established	Major business	Assets as of Dec 31, 2021	Ownership	Classified as major subsidiary (Y/N)
Samsung Electronics Romania LLC (SEROM)	Sep 2007	Electronic goods sales	353,140	Over 50%	Y
Samsung Electronics Austria GmbH (SEAG)	Jan 2002	Electronic goods sales	536,140	Over 50%	Y
Samsung Electronics Switzerland GmbH (SESG)	May 2013	Electronic goods sales	354,611	Over 50%	Y
Samsung Electronics Czech and Slovak s.r.o. (SECZ)	Jan 2010	Electronic goods sales	320,233	Over 50%	Y
SAMSUNG ELECTRONICS BALTICS SIA (SEB)	Oct 2001	Electronic goods sales	156,054	Over 50%	Y
Samsung Electronics Greece S.M.S.A (SEGR)	Apr 2010	Electronic goods sales	145,588	Over 50%	Y
Samsung Electronics Air Conditioner Europe B.V. (SEACE)	Apr 2017	Air conditioner sales	167,050	Over 50%	Y
Samsung Nanoradio Design Center (SNDG)	Feb 2004	R&D	29,111	Over 50%	N
Samsung Denmark Research Center ApS (SDRC)	Sep 2012	R&D	28,330	Over 50%	N
Samsung Cambridge Solution Centre Limited (SCSC)	Sep 2012	R&D	165,106	Over 50%	Y
Zhilabs, S.L.	Nov 2008	Network solution R&D and sales	14,277	Over 50%	N
FOODIENT LTD.	Mar 2012	R&D	4,489	Over 50%	N
Samsung Electronics Rus Company LLC (SERC)	Oct 2006	Electronic goods sales	1,714,693	Over 50%	Y
Samsung Electronics Rus Kaluga LLC (SERK)	Jul 2007	TV production	1,338,993	Over 50%	Y
Samsung Electronics Ukraine Company LLC (SEUC)	Sep 2008	Electronic goods sales	322,369	Over 50%	Y
Samsung R&D Institute Ukraine (SRUKR)	Feb 2022	R&D	-	Over 50%	N
Samsung Electronics Central Eurasia LLP (SECE)	Sep 2008	Electronic goods sales	570,861	Over 50%	Y
Samsung Electronics Overseas B.V. (SEO)	Jan 1997	Electronic goods sales	1,863	Over 50%	N
Samsung R&D Institute Rus LLC (SRR)	Nov 2011	R&D	49,064	Over 50%	N
Samsung Electronics Caucasus Co. Ltd (SECC)	Oct 2014	Marketing	2,199	Over 50%	N
Samsung Electronics Uzbekistan Ltd. (SEUZ)	Mar 2022	Marketing	-	Over 50%	N
AKG Acoustics GmbH	Mar 1947	Audio product production and sales	330,677	Over 50%	Y
Apostera GmbH	Mar 2017	Connected Service Provider	7,462	Over 50%	N
Apostera UA, LLC	Oct 2020	Connected Service Provider	338	Over 50%	N
Harman Audio Iberia Espana Sociedad Limitada	Nov 2012	Audio product sales	1,116	Over 50%	N
Harman Automotive UK Limited	Oct 2012	Audio product production	-	Over 50%	N
Harman Becker Automotive Systems GmbH	Jul 1990	Audio product production, sales, and R&D	3,805,205	Over 50%	Y
Harman Becker Automotive Systems Italy S.R.L.	Dec 2005	Audio product sales	1,222	Over 50%	N
Harman Becker Automotive Systems Manufacturing Kft	Aug 1994	Audio product R&D and production	3,127,200	Over 50%	Y
Harman Belgium SA	Apr 1967	Audio product sales	1,969	Over 50%	N
Harman Connected Services AB.	Oct 1984	Connected Service Provider	17,747	Over 50%	N
Harman Finland Oy	Jul 1998	Connected Service Provider	-	Over 50%	N
Harman Connected Services GmbH	Dec 2005	Connected Service Provider	45,171	Over 50%	N
Harman Connected Services Poland Sp.zoo	Jun 2007	Connected Service Provider	8,256	Over 50%	N
Harman Connected Services UK Ltd.	Sep 2008	Connected Service Provider	60,540	Over 50%	N

Subsidiary	Date established	Major business	Assets as of Dec 31, 2021	Ownership	Classified as major subsidiary (Y/N)
Harman Consumer Nederland B.V.	Dec 1995	Audio product sales	460,178	Over 50%	Y
Harman Deutschland GmbH	Mar 1998	Audio product sales	13,272	Over 50%	N
Harman Finance International GP S.a.r.l	Apr 2015	Subsidiary management (overseas)	-	Over 50%	N
Harman France SNC	Nov 1995	Audio product sales	154,903	Over 50%	Y
Harman Holding GmbH & Co. KG	Jun 2002	Management Company	5,256,219	Over 50%	Y
Harman Hungary Financing Ltd.	Jun 2012	Financing Company	35,823	Over 50%	N
Harman Inc. & Co. KG	Jun 2012	Subsidiary management (overseas)	4,247,706	Over 50%	Y
Harman International Estonia OU	May 2015	R&D	193	Over 50%	N
Harman International Industries Limited	Mar 1980	Audio product sales and R&D	78,684	Over 50%	Y
Harman International Romania SRL	Feb 2015	R&D	17,632	Over 50%	N
Harman Finance International, SCA	Apr 2015	Financing Company	486,810	Over 50%	Y
Harman International s.r.o	Feb 2015	Audio product production	69	Over 50%	N
Harman Management GmbH	Apr 2002	Subsidiary management (overseas)	-	Over 50%	N
Harman Professional Kft	Dec 2014	Audio product R&D and production	54,034	Over 50%	N
Harman Professional Denmark ApS	Jul 1987	Audio product sales and R&D	47,985	Over 50%	N
Red Bend Software Ltd.	Aug 2004	Software design	-	Over 50%	N
Red Bend Software SAS	Oct 2002	Software design	7,784	Over 50%	N
Studer Professional Audio GmbH	Nov 2003	Audio product sales and R&D	8,725	Over 50%	N
Harman Connected Services OOO	Nov 1998	Connected Service Provider	17,799	Over 50%	N
Harman RUS CIS LLC	Aug 2011	Audio product sales	155,602	Over 50%	Y
Samsung Gulf Electronics Co., Ltd.(SGE)	May 1995	Electronic goods sales	1,776,336	Over 50%	Y
Samsung Electronics Turkey (SETK)	Dec 1984	Electronic goods sales	422,159	Over 50%	Y
Samsung Electronics Industry and Commerce Ltd. (SETK-P)	Feb 2021	Electronic goods production	131,811	Over 50%	Y
Samsung Electronics Levant Co.,Ltd. (SELV)	Jul 2009	Electronic goods sales	349,640	Over 50%	Y
Samsung Electronics Maghreb Arab (SEMAG)	Nov 2009	Electronic goods sales	322,510	Over 50%	Y
Samsung Electronics Egypt S.A.E (SEEG)	Jul 2012	Electronic goods production and sales	946,599	Over 50%	Y
Samsung Electronics Israel Ltd. (SEIL)	Sep 2012	Marketing	14,889	Over 50%	N
Samsung Electronics Tunisia S.A.R.L (SETN)	Sep 2012	Marketing	5,206	Over 50%	N
Samsung Electronics Pakistan(Private) Ltd. (SEPAK)	Nov 2012	Marketing	3,343	Over 50%	N
Samsung Electronics Saudi Arabia Ltd. (SESAR)	Nov 2019	Electronic goods sales	440,098	Over 50%	Y
Samsung Semiconductor Israel R&D Center, Ltd. (SIRC)	Oct 2007	R&D	150,482	Over 50%	Y
Corephotonics Ltd.	Jan 2012	R&D	12,963	Over 50%	N
Samsung Electronics South Africa(Pty) Ltd. (SSA)	Jun 1994	Electronic goods sales	500,605	Over 50%	Y
Samsung Electronics South Africa Production (pty) Ltd. (SSAP)	Jul 2014	TV and monitor production	92,169	Over 50%	Y
Samsung Electronics West Africa Ltd. (SEWA)	Mar 2010	Marketing	23,034	Over 50%	N

Subsidiary	Date established	Major business	Assets as of Dec 31, 2021	Ownership	Classified as major subsidiary (Y/N)
Samsung Electronics East Africa Ltd. (SEEA)	Dec 2011	Marketing	16,851	Over 50%	N
Global Symphony Technology Group Private Ltd.	Jan 2002	Subsidiary management (overseas)	51,892	Over 50%	N
Harman Connected Services Morocco	Apr 2012	Connected Service Provider	921	Over 50%	N
Harman Industries Holdings Mauritius Ltd.	Oct 2009	Subsidiary management (overseas)	87,624	Over 50%	Y
Red Bend Ltd.	Feb 1998	Audio product production	109,755	Over 50%	Y
Samsung Asia Pte. Ltd. (SAPL)	Jul 2006	Subsidiary management (overseas)	14,683,789	Over 50%	Y
Samsung Electronics Singapore Pte. Ltd. (SESP)	Oct 2020	Electronic goods sales	669,485	Over 50%	Y
Samsung Malaysia Electronics (SME) Sdn. Bhd. (SME)	May 2003	Electronic goods sales	625,662	Over 50%	Y
Samsung Electronics Display (M) Sdn. Bhd. (SDMA)	Mar 1995	Electronic goods production	24,681	Over 50%	N
Samsung Electronics (M) Sdn. Bhd. (SEMA)	Sep 1989	Home appliance production	263,523	Over 50%	Y
Samsung Vina Electronics Co., Ltd. (SAVINA)	Jan 1995	Electronic goods sales	105,109	Over 50%	Y
Samsung Electronics Vietnam Co., Ltd. (SEV)	Mar 2008	Electronic goods production	13,023,272	Over 50%	Y
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	Mar 2013	Telecom product production	17,521,446	Over 50%	Y
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	Feb 2015	Electronic goods production and sales	3,129,104	Over 50%	Y
Samsung Display Vietnam Co., Ltd. (SDV)	Jul 2014	Display panel production	6,821,066	Over 50%	Y
DOWOINSYS VINA COMPANY LIMITED	Jun 2022	Display panel component production	-	Over 50%	N
PT Samsung Electronics Indonesia (SEIN)	Aug 1991	Electronic goods production and sales	1,139,901	Over 50%	Y
PT Samsung Telecommunications Indonesia (STIN)	Mar 2003	Electronic goods sales and service	63,990	Over 50%	N
Thai Samsung Electronics Co., Ltd. (TSE)	Oct 1988	Electronic goods production and sales	3,018,358	Over 50%	Y
Laos Samsung Electronics Sole Co., Ltd (LSE)	Sep 2016	Marketing	1,064	Over 50%	N
Samsung Electronics Philippines Corporation (SEPCO)	Mar 1996	Electronic goods sales	358,559	Over 50%	Y
Samsung Electronics Australia Pty. Ltd. (SEAU)	Nov 1987	Electronic goods sales	765,487	Over 50%	Y
Samsung Electronics New Zealand Limited (SENZ)	Sep 2013	Electronic goods sales	181,670	Over 50%	Y
Samsung India Electronics Private Ltd. (SIEL)	Aug 1995	Electronic goods production and sales	7,765,019	Over 50%	Y
Red Brick Lane Marketing Solutions Pvt. Ltd.	Jan 2012	Marketing	4,945	Over 50%	N
Samsung Display Noida Private Limited (SDN)	Jul 2019	Display panel production	657,924	Over 50%	Y
Samsung R&D Institute India-Bangalore Private Limited (SRI-Bangalore)	May 2005	R&D	477,710	Over 50%	Y
Samsung R&D Institute BanglaDesh Limited (SRBD)	Aug 2010	R&D	18,277	Over 50%	N
Samsung Nepal Services Pvt, Ltd (SNSL)	Nov 2017	Service	385	Over 50%	N
Samsung Japan Corporation (SJC)	Dec 1975	Semiconductor and display panel sales	1,311,938	Over 50%	Y
Samsung R&D Institute Japan Co. Ltd. (SRJ)	Aug 1992	R&D	161,184	Over 50%	Y
Samsung Electronics Japan Co., Ltd. (SEJ)	Sep 2008	Electronic goods sales	880,101	Over 50%	Y
Harman Connected Services Corp. India Pvt. Ltd.	Apr 2002	Connected Service Provider	311,892	Over 50%	Y
Harman International (India) Private Limited	Jan 2009	Audio product sales and R&D	361,520	Over 50%	Y
Harman International Industries PTY Ltd.	Dec 2014	Subsidiary management (overseas)	-	Over 50%	N

Subsidiary	Date established	Major business	Assets as of Dec 31, 2021	Ownership	Classified as major subsidiary (Y/N)
Harman International Japan Co., Ltd.	Jun 1991	Audio product sales and R&D	63,699	Over 50%	N
Harman Singapore Pte. Ltd.	Aug 2007	Audio product sales	10,738	Over 50%	N
Samsung (CHINA) Investment Co., Ltd. (SCIC)	Mar 1996	Electronic goods sales	13,599,093	Over 50%	Y
Samsung Electronics Hong Kong Co., Ltd. (SEHK)	Sep 1988	Electronic goods sales	1,788,990	Over 50%	Y
Samsung Electronics Taiwan Co., Ltd. (SET)	Nov 1994	Electronic goods sales	2,033,992	Over 50%	Y
Tianjin Samsung Electronics Co., Ltd. (TSEC)	Apr 1993	TV and monitor production	551,511	Over 50%	Y
Suzhou Samsung Electronics Co., Ltd. (SSEC)	Apr 1995	Home appliance production	670,959	Over 50%	Y
Samsung Suzhou Electronics Export Co., Ltd. (SSEC-E)	Apr 1995	Home appliance production	559,267	Over 50%	Y
Samsung Electronics Suzhou Computer Co., Ltd. (SESC)	Sep 2002	Electronic goods production and R&D	147,973	Over 50%	Y
Tianjin Samsung Telecom Technology Co., Ltd. (TSTC)	Mar 2001	Telecom product production	654,546	Over 50%	Y
Beijing Samsung Telecom R&D Center (SRC-Beijing)	Sep 2000	R&D	157,755	Over 50%	Y
Samsung Electronics China R&D Center (SRC-Nanjing)	May 2004	R&D	81,122	Over 50%	Y
Samsung Mobile R&D Center China- Guangzhou (SRC-Guangzhou)	Jan 2010	R&D	106,664	Over 50%	Y
Samsung R&D Institute China-Shenzhen (SRC-Shenzhen)	Mar 2013	R&D	42,903	Over 50%	N
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	Oct 2001	Semiconductor and display panel sales	7,765,126	Over 50%	Y
Samsung (China) Semiconductor Co., Ltd. (SCS)	Sep 2012	Semiconductor production	19,049,536	Over 50%	Y
Samsung SemiConductor Xian Co., Ltd. (SSCX)	Apr 2016	Semiconductor and display panel sales	1,154,516	Over 50%	Y
Samsung Electronics Suzhou Semiconductor Co., Ltd. (SESS)	Dec 1994	Semiconductor processing	1,477,600	Over 50%	Y
Tianjin Samsung LED Co., Ltd. (TSLED)	May 2009	LED production	567,151	Over 50%	Y
Samsung Semiconductor (China) R&D Co., Ltd. (SSCR)	Apr 2003	R&D	68,955	Over 50%	N
Samsung Display Dongguan Co., Ltd. (SDD)	Nov 2001	Display panel production	2,149,277	Over 50%	Y
Samsung Display Tianjin Co., Ltd. (SDT)	Jun 2004	Display panel production	1,546,613	Over 50%	Y
SEMES (XIAN) Co., Ltd.	Jul 2013	Semiconductor/FPD equipment services	3,491	Over 50%	N
Samsung Semiconductor Investment L.P. I	Dec 2021	Tech/emerging-tech venture firm investments	18,409	Over 50%	N
Harman (China) Technologies Co., Ltd.	Mar 2011	Audio product production	140,969	Over 50%	Y
Harman (Suzhou) Audio and Infotainment Systems Co., Ltd.	Mar 2013	Audio product sales	5,791	Over 50%	N
Harman Automotive Electronic Systems (Suzhou) Co., Ltd.	Sep 2006	Audio product R&D and production	313,303	Over 50%	Y
Harman Commercial (Shanghai) Co., Ltd.	Oct 2010	Audio product sales	247	Over 50%	N
Harman Connected Services Solutions (Chengdu) Co., Ltd.	Aug 2007	Connected Service Provider	14,865	Over 50%	N
Harman Holding Limited	May 2007	Audio product sales	567,202	Over 50%	Y
Harman International (China) Holdings Co., Ltd.	Jun 2009	Audio product sales and R&D	697,932	Over 50%	Y
Harman Technology (Shenzhen) Co., Ltd.	Sep 2004	Audio product sales and R&D	28,762	Over 50%	N
Samsung Display	Apr 2012	Display panel production and sales	54,967,156	Over 50%	Y
SU Materials	Aug 2011	Display panel component production	34,863	Over 50%	N
STECO	Jun 1995	Semiconductor component production	153,976	Over 50%	Y

Subsidiary	Date established	Major business	Assets as of Dec 31, 2021	Ownership	Classified as major subsidiary (Y/N)
SEMES	Jan 1993	Semiconductor/FPD manufacturing equipment production and sales	1,931,476	Over 50%	Y
Samsung Electronics Service	Oct 1998	Electronics goods repair services	553,466	Over 50%	Y
Samsung Electronics Service CS	Oct 2018	Customer management services	20,082	Over 50%	N
Samsung Electronics Sales	Jul 1996	Electronic goods sales	1,374,619	Over 50%	Y
Samsung Electronics Logitech	Apr 1998	Total logistics services	386,841	Over 50%	Y
Samsung Medison	Jul 1985	Medical device production and sales	451,830	Over 50%	Y
Mirero System	Jan 1994	Semiconductor software development and supply	31,668	Over 50%	N
Dowoo Insys	Mar 2010	Display panel component production	62,894	Over 50%	N
GF Co., Ltd.	Oct 2015	Display panel component production	6,826	Over 50%	N
Harman Korea	Jan 2005	Semiconductor software development and supply	21,682	Over 50%	N
SVIC #21 Venture Capital Union	Nov 2011	Tech/emerging-tech venture firm investments	123,575	Over 50%	Y
SVIC #22 Venture Capital Union	Nov 2011	Tech/emerging-tech venture firm investments	93,345	Over 50%	Y
SVIC #26 Venture Capital Union	Nov 2014	Tech/emerging-tech venture firm investments	81,623	Over 50%	Y
SVIC #28 Venture Capital Union	Feb 2015	Tech/emerging-tech venture firm investments	498,438	Over 50%	Y
SVIC #29 Venture Capital Union	Apr 2015	Tech/emerging-tech venture firm investments	42,774	Over 50%	N
SVIC #32 Venture Capital Union	Aug 2016	Tech/emerging-tech venture firm investments	355,271	Over 50%	Y
SVIC #33 Venture Capital Union	Nov 2016	Tech/emerging-tech venture firm investments	396,087	Over 50%	Y
SVIC #37 Venture Capital Union	Nov 2017	Tech/emerging-tech venture firm investments	77,214	Over 50%	Y
SVIC #40 Venture Capital Union	Jun 2018	Tech/emerging-tech venture firm investments	43,552	Over 50%	N
SVIC #42 Venture Capital Union	Nov 2018	Tech/emerging-tech venture firm investments	15,429	Over 50%	N
SVIC #43 Venture Capital Union	Dec 2018	Tech/emerging-tech venture firm investments	8,066	Over 50%	N
SVIC #45 Venture Capital Union	May 2019	Tech/emerging-tech venture firm investments	169,143	Over 50%	Y
SVIC #48 Venture Capital Union	Dec 2019	Tech/emerging-tech venture firm investments	75,736	Over 50%	Y
SVIC #52 Venture Capital Union	May 2021	Tech/emerging-tech venture firm investments	9,102	Over 50%	N
SVIC #55 Venture Capital Union	Sep 2021	Tech/emerging-tech venture firm investments	85,899	Over 50%	Y
SVIC #56 Venture Capital Union	Nov 2021	Tech/emerging-tech venture firm investments	22,404	Over 50%	N
Private Equity Fund for Semiconductor Growth	Mar 2017	Semiconductor industry investments	74,436	Over 50%	N
Private Equity Fund for Co-existence of System Semiconductor Firms	Apr 2020	Semiconductor industry investments	79,710	Over 50%	Y

Companies with over KRW 75 billion in total assets as of December 31, 2020 are classified as major subsidiaries.

See 『II. Businesses Overview』 for detailed information about major business segments.

(Changes in subsidiaries)

	Americas	Europe/ CIS	MEA/ Africa	Asia ex China	China	Domestic	Total	Increase	Decrease
As of Dec 31 2019	54	75	19	30	34	28	240	-	-
Changes in 2020	1	-	-	-	(1)	1	1	[Americas: 4] TeleWorld Solutions, Inc. (TWS) TWS LATAM B, LLC TWS LATAM S, LLC SNB Technologies, Inc. Mexico, S.A. de C.V [Asia ex China: 1] Samsung Electronics Singapore Pte. Ltd. (SESP) [Domestic: 1] Private Equity Fund for Co-existence of System Semiconductor Firms	[Americas: 3] Harman Connected Services South America S.R.L. EverythingDacor.com, Inc. Distinctive Appliances of California, Inc. [Asia ex China: 1] Martin Professional Pte. Ltd. [China: 1] Samsung Tianjin Mobile Development Center (SRC-Tianjin)
As of Dec 31 2020	55	75	19	30	33	29	241	-	-
Changes in 2021	(9)	(4)	1	-	(3)	2	(13)	[China: 1] Samsung Semiconductor Investment L.P. I [MEA/Africa: 1] Samsung Electronics Industry and Commerce Ltd. (SETK-P) [Domestic: 3] SVIC #52 Venture Capital Union SVIC #55 Venture Capital Union SVIC #56 Venture Capital Union	[Americas: 9] Viv Labs, Inc. Stellus Technologies, Inc. SigMast Communications Inc. Prismview, LLC Zhilabs, Inc. TWS LATAM B, LLC TWS LATAM S, LLC SNB Technologies, Inc. Mexico, S.A. de C.V - RT SV CO-INVEST, LP [Europe/CIS: 4] Arcam Limited A&R Cambridge Limited Harman Connected Services Limited Martin Manufacturing (UK) Ltd. [China: 4] Samsung Suzhou Module Co., Ltd. (SSM) Samsung Suzhou LCD Co., Ltd. (SSL) Samsung Electronics Huizhou Co., Ltd.(SEHZ) Shenzhen Samsung Electronics Telecommunication Co., Ltd.(SSET) [Domestic: 1] SVIC #27 Venture Capital Union
As of Dec 31 2021	46	71	20	30	30	31	228	-	-
Changes in 2022	-	3	-	2	-	-	5	[Europe/CIS: 4] Samsung R&D Institute Ukraine (SRUKR) Samsung Electronics Uzbekistan Ltd. (SEUZ) Apostera GmbH Apostera UA, LLC [Asia ex China: 2] DOWOOINSYS VINA COMPANY LIMITED Red Brick Lane Marketing Solutions Pvt. Ltd.	[Europe/CIS: 1] AMX UK Limited
As of Jun 30 2022	46	74	20	32	30	31	233	-	-

2. Affiliates & subsidiaries (detailed)

A. Domestic Affiliates

As of June 30, 2022, Samsung Group is consisted of 61 domestic affiliates. Among the Samsung Group's 61 domestic affiliates, sixteen (16) affiliates including Samsung Electronics are listed, and forty-five (45) affiliates are unlisted.

[As of June 30, 2022]

Listing	No. of affiliates	Name of affiliates
Listed	16	Samsung C&T; Samsung Biologics; Samsung Life Insurance; Samsung SDI; Samsung SDS; Samsung Engineering; Samsung Electro-mechanics; Samsung Electronics; Samsung Heavy Industries; Samsung Securities; Samsung Card; Samsung Fire & Marine Insurance; Multicampus; S1; Cheil Worldwide; Hotel Shilla
Unlisted	45	Samsung Display; Samsung Medison; Samsung Bioepis; Samsung Venture Investment Corporation; Samsung Life Service; Samsung Futures; Samsung Active Asset Management; Samsung SRA Asset Management; Samsung Welstory; Samsung Asset Management; Samsung Electronics Logitech; Samsung Electronics Service; Samsung Electronics Service CS; Samsung Electronics Sales; Samsung Card Customer Service; Samsung Corning Advanced Glass; Samsung Hedge Asset Management; Samsung Fire & Marine Insurance Service; Samsung Claim Adjustment Service; SUNGKYUNKWAN Holdings Co., Ltd.; SEMES; Suwon Samsung Bluewings FC; STECO; Shilla HM; SD Flex; SBTM; S-1CRM; SU Materials; S-Core; STM; HDC Shilla Duty Free LTD; OpenHands; Cheil Fashion Retail Co., Ltd.; Miracom; Samsung global research(SGR); Samsung Lions; Samsung Life Financial Service; Samsung Fire & Marine Insurance Financial Service; Samwoo Architects & Engineers; Seoul Lakeside CC; SECUI; CVnet Corporation; SHP Corporation; Harman International Korea; Human TSS
Total	61	

B. Foreign Affiliates

[As of June 30, 2022]

Listing	No. of affiliates	Name of affiliates	Country
Unlisted	578	SAMOO AUSTIN INC	USA
		SAMOO HU Designer and Engineering Services Limited	Hungary
		SAMOO DESIGNERS & ENGINEERS INDIA PRIVATE LIMITED	India
		SAMOO (KL) SDN. BHD.	Malaysia
		SAMOO Design Consulting Co.,Ltd	China
		Meadowland Distribution	USA
		Samsung Green repower, LLC	USA
		Samsung Solar Construction Inc.	USA
		QSSC, S.A. de C.V.	Mexico
		Samsung Solar Energy LLC	USA
		Equipment Trading Solutions Group, LLC	USA
		FLOWFY COMMERCE SERVICE LLC	USA
		SP Armow Wind Ontario LP	Canada
		SRE GRW EPC GP Inc.	Canada
		SRE GRW EPC LP	Canada
		SRE SKW EPC GP Inc.	Canada
		SRE SKW EPC LP	Canada
		SRE WIND PA GP INC.	Canada
		SRE WIND PA LP	Canada
		SRE GRS Holdings GP Inc.	Canada
		SRE GRS Holdings LP	Canada
		SRE K2 EPC GP Inc.	Canada
		SRE K2 EPC LP	Canada
		SRE KS HOLDINGS GP INC.	Canada
		SRE KS HOLDINGS LP	Canada
		SP Belle River Wind LP	Canada
		SRE Armow EPC GP Inc.	Canada
		SRE Armow EPC LP	Canada
		North Kent Wind 1 LP	Canada
		SRE Wind GP Holding Inc.	Canada
		South Kent Wind LP Inc.	Canada
		Grand Renewable Wind LP Inc.	Canada
		SRE North Kent 2 LP Holdings LP	Canada
		SRE Solar Development GP Inc.	Canada
SRE Solar Development LP	Canada		
SRE Windsor Holdings GP Inc.	Canada		
SRE Southgate Holdings GP Inc.	Canada		
SRE Solar Construction Management GP Inc.	Canada		
SRE Solar Construction Management LP	Canada		
SRE BRW EPC GP INC.	Canada		
SRE BRW EPC LP	Canada		
SRE North Kent 1 GP Holdings Inc	Canada		
SRE North Kent 2 GP Holdings Inc	Canada		

Listing	No. of affiliates	Name of affiliates	Country
		SRE Belle River GP Holdings Inc	Canada
		SRE NK1 EPC GP Inc	Canada
		SRE NK1 EPC LP	Canada
		SRE Summerside Construction GP Inc.	Canada
		SRE Summerside Construction LP	Canada
		Monument Power, LLC	USA
		PLL Holdings LLC	USA
		PLL E&P LLC	USA
		Parallel Petroleum LLC	USA
		Grand Renewable Solar GP Inc.	Canada
		KINGSTON SOLAR GP INC.	Canada
		SP Armow Wind Ontario GP Inc	Canada
		South Kent Wind GP Inc.	Canada
		Grand Renewable Wind GP Inc.	Canada
		North Kent Wind 1 GP Inc	Canada
		SP Belle River Wind GP Inc	Canada
		Samsung Solar Energy 1 LLC	USA
		Samsung Solar Energy 2 LLC	USA
		Samsung Solar Energy 3, LLC	USA
		CS SOLAR LLC	USA
		SST SOLAR, LLC	USA
		SungEel Recycling Park Thüringen GmbH	Germany
		POSS-SLPC, S.R.O	Slovakia
		Solluce Romania 1 B.V.	Romania
		S.C. Otelinox S.A	Romania
		WARIS GIGIH ENGINEERING AND TECHNOLOGY SDN. BHD.	Malaysia
		Samsung Chemtech Vina LLC	Vietnam
		Samsung C&T Thailand Co., Ltd	Thailand
		PT. INSAM BATUBARA ENERGY	Indonesia
		Malaysia Samsung Steel Center Sdn.Bhd	Malaysia
		S&G Biofuel PTE.LTD	Singapore
		PT. Gandaerah Hendana	Indonesia
		PT. Inecda	Indonesia
		VISTA CONTRACTING AND DEVELOPMENT BANGLADESH LTD.	Bangladesh
		SAMSUNG CONST. CO. PHILS.	Philippines
		SAMSUNG TRADING (SHANGHAI) CO., LTD	China
		Samsung Precision Stainless Steel(pinghu) Co.,Ltd.	China
		Samsung Japan Corporation	Japan
		Samsung R&D Institute Japan Co. Ltd.	Japan
		Samsung Electronics America, Inc.	USA
		Samsung Electronics Canada, Inc.	Canada
		Samsung Electronics Mexico S.A. De C.V.	Mexico
		Samsung Electronics Ltd.	United Kingdom
		Samsung Electronics (UK) Ltd.	United Kingdom
		Samsung Electronics Holding GmbH	Germany
		Samsung Electronics Iberia, S.A.	Spain
		Samsung Electronics France S.A.S	France
		Samsung Electronics Hungarian Private Co. Ltd.	Hungary

Listing	No. of affiliates	Name of affiliates	Country
		Samsung Electronics Italia S.P.A.	Italy
		Samsung Electronics Europe Logistics B.V.	Netherlands
		Samsung Electronics Benelux B.V.	Netherlands
		Samsung Electronics Overseas B.V.	Netherlands
		Samsung Electronics Polska, SP.Zo.o	Poland
		Samsung Electronics Portuguesa, Unipessoal, Lda.	Portugal
		Samsung Electronics Nordic Aktiebolag	Sweden
		Samsung Electronics Austria GmbH	Austria
		Samsung Electronics Slovakia s.r.o	Slovakia
		Samsung Electronics Europe Holding Cooperatief U.A.	Netherlands
		Samsung Electronics Display (M) Sdn. Bhd.	Malaysia
		Samsung Electronics (M) Sdn. Bhd.	Malaysia
		Samsung Vina Electronics Co., Ltd.	Vietnam
		Samsung Asia Pte. Ltd.	Singapore
		Samsung India Electronics Private Ltd.	India
		Samsung R&D Institute India-Bangalore Private Limited	India
		Samsung Electronics Australia Pty. Ltd.	Australia
		PT Samsung Electronics Indonesia	Indonesia
		Thai Samsung Electronics Co., Ltd.	Thailand
		Samsung Malaysia Electronics (SME) Sdn. Bhd.	Malaysia
		Samsung Electronics Hong Kong Co., Ltd.	Hong Kong
		Suzhou Samsung Electronics Co., Ltd.	China
		Samsung (CHINA) Investment Co., Ltd.	China
		Samsung Electronics Suzhou Semiconductor Co., Ltd.	China
		Tianjin Samsung Electronics Co., Ltd.	China
		Samsung Electronics Taiwan Co., Ltd.	Taiwan
		Tianjin Samsung Telecom Technology Co., Ltd.	China
		Shanghai Samsung Semiconductor Co., Ltd.	China
		Samsung Electronics Suzhou Computer Co., Ltd.	China
		Samsung Semiconductor (China) R&D Co., Ltd.	China
		Samsung (China) Semiconductor Co., Ltd.	China
		Samsung SemiConductor Xian Co., Ltd.	China
		Samsung Gulf Electronics Co., Ltd.	Utd.Arab Emir.
		Samsung Electronics Egypt S.A.E	Egypt
		Samsung Electronics South Africa(Pty) Ltd.	South Africa
		Samsung Electronics Latinoamerica(Zona Libre), S. A.	Panama
		Samsung Eletronica da Amazonia Ltda.	Brazil
		Samsung Electronics Argentina S.A.	Argentina
		Samsung Electronics Chile Limitada	Chile
		Samsung Electronics Rus Company LLC	Russian Fed.
		Samsung Electronics Rus Kaluga LLC	Russian Fed.
		Tianjin Samsung LED Co., Ltd.	China
		Samsung Biologics America, Inc.	USA
		Samsung Bioepis United States Inc.	USA
		SAMSUNG BIOEPIS UK LIMITED	United Kingdom
		Samsung Bioepis NL B.V.	Netherlands
		Samsung Bioepis CH GmbH	Switzerland
		Samsung Bioepis PL Sp z o.o.	Poland

Listing	No. of affiliates	Name of affiliates	Country
		SAMSUNG BIOEPIS AU PTY LTD	Australia
		SAMSUNG BIOEPIS NZ LIMITED	New Zealand
		Samsung Biopis TW Limited	Taiwan
		Samsung Bioepis HK Limited	Hong Kong
		SAMSUNG BIOEPIS IL LTD	Israel
		SAMSUNG BIOEPIS BR PHARMACEUTICAL LTDA	Brazil
		Intellectual Keystone Technology LLC	USA
		Samsung Display Slovakia, s.r.o.	Slovakia
		Samsung Display Vietnam Co., Ltd.	Vietnam
		Samsung Display Noida Private Limited	India
		Samsung Display Dongguan Co., Ltd.	China
		Samsung Display Tianjin Co., Ltd.	China
		Novald GmbH	Germany
		SEMES America, Inc.	USA
		SEMES (XIAN) Co., Ltd.	China
		NeuroLogica Corp.	USA
		Dacor Holdings, Inc.	USA
		Samsung HVAC America, LLC	USA
		SmartThings, Inc.	USA
		Samsung Oak Holdings, Inc.	USA
		Joyent, Inc.	USA
		TeleWorld Solutions, Inc.	USA
		Samsung Semiconductor, Inc.	USA
		Samsung Research America, Inc	USA
		Samsung Electronics Home Appliances America, LLC	USA
		Samsung International, Inc.	USA
		Harman International Industries, Inc.	USA
		Dacor, Inc.	USA
		Dacor Canada Co.	Canada
		Samsung Austin Semiconductor LLC.	USA
		AdGear Technologies Inc.	Canada
		SAMSUNG NEXT LLC	USA
		SAMSUNG NEXT FUND LLC	USA
		Samsung Mexicana S.A. de C.V	Mexico
		Samsung Electronics Digital Appliance Mexico, SA de CV	Mexico
		Harman International Japan Co., Ltd.	Japan
		Harman International Industries Canada Ltd.	Canada
		Harman Becker Automotive Systems, Inc.	USA
		Harman Professional, Inc.	USA
		Harman Connected Services, Inc.	USA
		Harman Financial Group LLC	USA
		Harman Belgium SA	Belgium
		Harman France SNC	France
		Red Bend Software SAS	France
		Harman Inc. & Co. KG	Germany
		Harman KG Holding, LLC	USA
		Harman Becker Automotive Systems Italy S.R.L.	Italy
		Harman Finance International, SCA	Luxembourg

Listing	No. of affiliates	Name of affiliates	Country
		Harman Finance International GP S.a.r.l	Luxembourg
		Harman Industries Holdings Mauritius Ltd.	Mauritius
		Harman International Mexico, S. de R.L. de C.V.	Mexico
		Harman International Estonia OU	Estonia
		Harman Singapore Pte. Ltd.	Singapore
		Harman da Amazonia Industria Eletronica e Participacoes Ltda.	Brazil
		Harman do Brasil Industria Eletronica e Participacoes Ltda.	Brazil
		Harman Connected Services Engineering Corp.	USA
		Harman Connected Services AB.	Sweden
		Harman Connected Services UK Ltd.	United Kingdom
		Harman Connected Services Corp. India Pvt. Ltd.	India
		Global Symphony Technology Group Private Ltd.	Mauritius
		Harman International (India) Private Limited	India
		Harman de Mexico, S. de R.L. de C.V.	Mexico
		Samsung Semiconductor Europe Limited	United Kingdom
		Samsung Semiconductor Europe GmbH	Germany
		Samsung Electronics GmbH	Germany
		Samsung Electronics Czech and Slovak s.r.o.	Czech Republic
		SAMSUNG ELECTRONICS BALTICS SIA	Latvia
		Samsung Electronics West Africa Ltd.	Nigeria
		Samsung Electronics East Africa Ltd.	Kenya
		Samsung Electronics Saudi Arabia Ltd.	Saudi Arabia
		Samsung Electronics Israel Ltd.	Israel
		Samsung Electronics Tunisia S.A.R.L	Tunisia
		Samsung Electronics Pakistan(Private) Ltd.	Pakistan
		Samsung Electronics South Africa Production (pty) Ltd.	South Africa
		Samsung Electronics Turkey	Turkey
		Samsung Electronics Industry and Commerce Ltd.	Turkey
		Samsung Semiconductor Israel R&D Center, Ltd.	Israel
		Samsung Electronics Levant Co.,Ltd.	Jordan
		Samsung Electronics Maghreb Arab	Morocco
		Samsung Electronics Venezuela, C.A.	Venezuela
		Samsung Electronics Peru S.A.C.	Peru
		Samsung Electronics Ukraine Company LLC	Ukraine
		Samsung R&D Institute Ukraine	Ukraine
		Samsung R&D Institute Rus LLC	Russian Fed.
		Samsung Electronics Central Eurasia LLP	Kazakhstan
		Samsung Electronics Caucasus Co. Ltd	Azerbaijan
		Samsung Electronics Uzbekistan Ltd.	Uzbekistan
		Corephotonics Ltd.	Israel
		Samsung Nanoradio Design Center	Sweden
		Harman Professional Denmark ApS	Denmark
		Studer Professional Audio GmbH	Switzerland
		Martin Professional Japan Ltd.	Japan
		Harman International s.r.o	Czech Republic
		Harman International Romania SRL	Romania
		Harman Becker Automotive Systems GmbH	Germany
		Harman Deutschland GmbH	Germany

Listing	No. of affiliates	Name of affiliates	Country
		Harman Becker Automotive Systems Manufacturing Kft	Hungary
		Apostera GmbH	Germany
		Harman RUS CIS LLC	Russian Fed.
		Harman Holding GmbH & Co. KG	Germany
		Harman Management GmbH	Germany
		Harman Hungary Financing Ltd.	Hungary
		Harman Connected Services OOO	Russian Fed.
		Harman Professional Kft	Hungary
		Harman Consumer Nederland B.V.	Netherlands
		Red Bend Ltd.	Israel
		Harman International Industries Limited	United Kingdom
		AKG Acoustics GmbH	Austria
		Harman Audio Iberia España Sociedad Limitada	Spain
		Harman Holding Limited	Hong Kong
		Harman Finland Oy	Finland
		Harman Connected Services GmbH	Germany
		Harman Connected Services Poland Sp.zoo	Poland
		Harman Connected Services Solutions (Chengdu) Co., Ltd.	China
		Harman Automotive UK Limited	United Kingdom
		Harman International Industries PTY Ltd.	Australia
		Harman Connected Services Morocco	Morocco
		Apostera UA, LLC	Ukraine
		Samsung Electronics Switzerland GmbH	Switzerland
		Samsung Electronics Romania LLC	Romania
		Zhilabs, S.L.	Spain
		Porta Nuova Varesine Building 2 S.r.l.	Italy
		Samsung Electronics Poland Manufacturing SP.Zo.o	Poland
		Samsung Electronics Greece S.M.S.A	Greece
		Samsung Electronics Air Conditioner Europe B.V.	Netherlands
		FOODIENT LTD.	United Kingdom
		Samsung Denmark Research Center ApS	Denmark
		Samsung Cambridge Solution Centre Limited	United Kingdom
		iMarket Asia Co., Ltd.	Hong Kong
		Samsung Electronics Japan Co., Ltd.	Japan
		Samsung Electronics Singapore Pte. Ltd.	Singapore
		Samsung Electronics New Zealand Limited	New Zealand
		Samsung Electronics Philippines Corporation	Philippines
		Samsung R&D Institute BanglaDesh Limited	Bangladesh
		Samsung Electronics Vietnam Co., Ltd.	Vietnam
		Samsung Electronics Vietnam THAINGUYEN Co., Ltd.	Vietnam
		Samsung Electronics HCMC CE Complex Co., Ltd.	Vietnam
		Samsung Nepal Services Pvt, Ltd	Nepal
		Red Brick Lane Marketing Solutions Pvt. Ltd.	India
		PT Samsung Telecommunications Indonesia	Indonesia
		Laos Samsung Electronics Sole Co., Ltd	Laos
		Samsung Suzhou Electronics Export Co., Ltd.	China
		Samsung Mobile R&D Center China-Guangzhou	China
		Samsung R&D Institute China-Shenzhen	China

Listing	No. of affiliates	Name of affiliates	Country
		Beijing Samsung Telecom R&D Center	China
		Samsung Electronics China R&D Center	China
		Harman (Suzhou) Audio and Infotainment Systems Co., Ltd.	China
		Harman Technology (Shenzhen) Co., Ltd.	China
		Harman (China) Technologies Co., Ltd.	China
		Harman Commercial (Shanghai) Co., Ltd.	China
		Harman International (China) Holdings Co., Ltd.	China
		Harman Automotive Electronic Systems (Suzhou) Co., Ltd.	China
		Red Bend Software Ltd.	United Kingdom
		Samsung Electronics Latinoamerica Miami, Inc.	USA
		Samsung Electronica Colombia S.A.	Colombia
		Samsung Electronics Panama. S.A.	Panama
		Samsung SDI Japan Co., Ltd.	Japan
		Samsung SDI America, Inc.	USA
		Samsung SDI Hungary., Zrt.	Hungary
		Samsung SDI Europe GmbH	Germany
		Samsung SDI Battery Systems GmbH	Austria
		Samsung SDI Vietnam Co., Ltd.	Vietnam
		Samsung SDI Energy Malaysia Sdn, Bhd.	Malaysia
		Samsung SDI India Private Limited	India
		Samsung SDI(Hong Kong) Ltd.	Hong Kong
		Samsung SDI China Co., Ltd.	China
		Samsung SDI-ARN (Xi'An) Power Battery Co., Ltd.	China
		Samsung SDI (Tianjin) Battery Co.,Ltd.	China
		SAMSUNG SDI WUXI CO.,LTD.	China
		Tianjin Samsung SDI Co., Ltd.	China
		Samsung Electro-Mechanics Japan Co., Ltd.	Japan
		Samsung Electro-Mechanics America, Inc.	USA
		Samsung Electro-Mechanics GmbH	Germany
		Samsung Electro-Mechanics Philippines, Corp.	Philippines
		Calamba Premier Realty Corporation	Philippines
		Samsung Electro-Mechanics Pte Ltd.	Singapore
		Samsung Electro-Mechanics Vietnam Co., Ltd.	Vietnam
		Samsung Electro-Mechanics Software India Bangalore Private Limited	India
		Dongguan Samsung Electro-Mechanics Co., Ltd.	China
		Tianjin Samsung Electro-Mechanics Co., Ltd.	China
		Samsung High-Tech Electro-Mechanics(Tianjin) Co., Ltd.	China
		Samsung Electro-Mechanics (Shenzhen) Co., Ltd.	China
		Kunshan Samsung Electro-Mechanics Co., Ltd.	China
		Batino Realty Corporation	Philippines
		Samsung Fire & Marine Management Corporation	USA
		SAMSUNG FIRE & MARINE INSURANCE COMPANY OF EUROPE LTD.	United Kingdom
		PT. Asuransi Samsung Tugu	Indonesia
		SAMSUNG VINA INSURANCE COMPANY LIMITED	Vietnam
		Samsung Reinsurance Pte. Ltd.	Singapore
		Samsung Property & Casualty Insurance Company(China), Ltd	China
		Samsung Fire & Marine Insurance Management Middle East Limited	Utd.Arab Emir.
		Camellia Consulting Corporation	USA

Listing	No. of affiliates	Name of affiliates	Country
		Samsung Heavy Industries India Pvt.Ltd.	India
		SAMSUNG HEAVY INDUSTRIES (M) SDN.BHD	Malaysia
		Samsung Heavy Industries(Ningbo) Co., Ltd	China
		Samsung Heavy Industries(Rongcheng) Co., Ltd	China
		SAMSUNG HEAVY INDUSTRIES NIGERIA LIMITED	Nigeria
		Samsung Heavy Industries Mozambique LDA	Mozambique
		Samsung Heavy Industries Rus LLC	Russian Fed.
		SHI - MCI FZE	Nigeria
		Samsung Life Insurance (Thailand) Public Co., Ltd	Thailand
		Beijing Samsung Real Estate Co.. Ltd	China
		Samsung Asset Management (New York), Inc.	USA
		Samsung Global SME Private Equity Manager Fund Co., Ltd.	Cayman Islands
		Samsung Asset Management U.S. Holdings, Inc.	USA
		Samsung Private Equity Fund 2022 GP, Ltd.	Cayman Islands
		Samsung Co-Investment 2021 GP, Ltd.	Cayman Islands
		Samsung Asset Management(London) Ltd.	United Kingdom
		Samsung Private Equity Manager I Co., Ltd.	Cayman Islands
		Samsung Asset Management (Hong Kong) Ltd.	Hong Kong
		Samsung Asset Management (Beijing) Ltd.	China
		Samsung C&T Japan Corporation	Japan
		Samsung C&T America Inc.	USA
		Samsung E&C America, INC.	USA
		Samsung Renewable Energy Inc.	Canada
		Samsung C&T Oil & Gas Parallel Corp.	USA
		Samsung C&T Lima S.A.C.	Peru
		Samsung C&T Deutschland GmbH	Germany
		Samsung C&T U.K. Ltd.	United Kingdom
		Samsung C&T ECUK Limited	United Kingdom
		Whessoe engineering Limited	United Kingdom
		SAM investment Manzanilo.B.V	Netherlands
		Samsung C&T (KL) Sdn.,Bhd.	Malaysia
		Samsung C&T Malaysia SDN. BHD	Malaysia
		Erdsam Co., Ltd.	Hong Kong
		Samsung C&T India Private Limited	India
		Samsung C&T Corporation India Private Limited	India
		Samsung C&T Singapore Pte., Ltd.	Singapore
		SAMSUNG C&T Mongolia LLC.	Mongolia
		Samsung C&T Eng.&Const. Mongolia LLC.	Mongolia
		S&WOO CONSTRUCTION PHILIPPINES,INC.	Philippines
		VSSC STEEL CENTER LIMITED LIABILITY COMPANY	Vietnam
		Vista Contracting and Investment Global Pte. Ltd.	Singapore
		CHEIL HOLDING INC.	Philippines
		Samsung C&T Hongkong Ltd.	Hong Kong
		Samsung C&T Taiwan Co., Ltd.	Taiwan
		SAMSUNG C&T (SHANGHAI) CO., LTD.	China
		Samsung C&T (Xi'an) Co., Ltd.	China
		SAMSUNG C&T CORPORATION SAUDI ARABIA	Saudi Arabia
		SAM Gulf Investment Limited	Utd.Arab Emir.

Listing	No. of affiliates	Name of affiliates	Country
		Samsung C&T Chile Copper SpA	Chile
		SCNT Power Kelar Inversiones Limitada	Chile
		Samsung C&T Corporation Rus LLC	Russian Fed.
		Cheil Industries Corp., USA	USA
		CHEIL INDUSTRIES ITALY SRL	Italy
		Samsung Fashion Trading Co. ,Ltd	China
		SAMSUNG C&T CORPORATION VIETNAM CO., LTD	Vietnam
		Samsung C&T Corporation UEM Construction JV Sdn Bhd	Malaysia
		WELSTORY VIETNAM COMPANY LIMITED	Vietnam
		Shanghai Ever-Hongjun Business Mgt Service Co.,LTD	China
		Shanghai Welstory Food Company Limited	China
		LANGUAGE TESTING INTERNATIONAL, INC.	USA
		PENGTAI CHINA CO.,LTD.	China
		PengTai Taiwan Co., Ltd.	Taiwan
		PENGTAI E-COMMERCE CO.,LTD	China
		PENGTAI MARKETING SERVICE CO.,LTD.	China
		Medialytics Inc.	China
		Beijing Pengtai Baozun E-commerce Co., Ltd.	China
		iMarket China Co., Ltd.	China
		Samsung Securities (America), Inc.	USA
		Samsung Securities (Europe) Limited.	United Kingdom
		Samsung Securities (Asia) Limited.	Hong Kong
		Samsung SDS America, Inc.	USA
		SAMSUNG SDS GSCL Canada., Ltd.	Canada
		Neo EXpress Transportation (NEXT) Inc.	USA
		Samsung SDS Europe, Ltd.	United Kingdom
		Samsung SDS Global SCL Hungary, Kft.	Hungary
		Samsung SDS Global SCL Slovakia, S.R.O.	Slovakia
		Samsung SDS Global SCL Poland Sp. Z.o.o.	Poland
		Samsung GSCL Sweden AB	Sweden
		Samsung SDS Global SCL France SAS	France
		Samsung SDS Global SCL Greece Societe Anonyme	Greece
		Samsung SDS Global SCL Italy S.R.L. A Socio Unico	Italy
		Samsung SDS Global Supply Chain Logistics Spain S.L.U	Spain
		Samsung SDS Global SCL Netherlands Cooperatief U.A.	Netherlands
		Samsung SDS Global SCL Germany GmbH	Germany
		Samsung SDS Global SCL Romania S.R.L	Romania
		Samsung SDS Asia Pacific Pte, Ltd.	Singapore
		Samsung Data Systems India Private Limited	India
		Samsung SDS Vietnam Co., Ltd.	Vietnam
		PT. Samsung SDS Global SCL Indonesia	Indonesia
		Samsung SDS Global SCL Philippines Co., Ltd.Inc.	Philippines
		Samsung SDS Global SCL Thailand Co.,Ltd	Thailand
		Samsung SDS Global SCL Malaysia SDN.BHD.	Malaysia
		SAMSUNG SDS Global SCL Australia Pty.,Ltd.	Australia
		SDS-ACUTECH CO., Ltd.	Thailand
		ALS SDS Joint Stock Company	Vietnam
		SDS-MP Logistics Joint Stock Company	Vietnam

Listing	No. of affiliates	Name of affiliates	Country
		Samsung SDS China Co., Ltd.	China
		Samsung SDS Global SCL Hong Kong Co., Ltd.	Hong Kong
		SAMSUNG SDS Global SCL Egypt	Egypt
		Samsung SDS Global SCL South Africa (PTY) Ltd.	South Africa
		Samsung SDS Global SCL Nakliyat ve Lojistik Anonim Sirketi	Turkey
		Samsung SDS Global Supply Chain Logistics Middle East DWC-LLC	Utd.Arab Emir.
		Samsung SDS Latin America Tecnologia E Logistica LTDA.	Brazil
		INTE-SDS Logistics S.A. de C.V.	Mexico
		Samsung SDS Rus Limited Liability Company	Russian Fed.
		MIRACOM INC ASIA PACIFIC LIMITED	Hong Kong
		Samsung SDS Mexico, S.A. DE C.V.	Mexico
		Samsung SDS Global SCL Panama S.A.	Panama
		Samsung SDS Global SCL Chile Limitada	Chile
		Samsung SDS Global SCL Peru S.A.C	Peru
		Samsung SDS Global SCL Colombia S.A.S	Colombia
		Samsung SDS Global Development Center Xi'an	China
		Samsung SDS Global SCL Beijing Co., Ltd.	China
		Samsung Engineering America Inc.	USA
		Samsung Engineering Hungary Ltd.	Hungary
		Samsung Engineering Italy S.R.L.	Italy
		Samsung Engineering (Malaysia) SDN. BHD.	Malaysia
		PT Samsung Engineering Indonesia Co., Ltd.	Indonesia
		Samsung Engineering (Thailand) Co., Ltd.	Thailand
		Samsung Engineering India Private Limited	India
		Samsung Engineering Vietnam Co., Ltd.	Vietnam
		Samsung Engineering Construction(Shanghai) Co., Ltd	China
		Samsung Engineering Construction Xi' an Co., Ltd.	China
		Samsung Saudi Arabia Co., Ltd.	Saudi Arabia
		Muharraq Wastewater Services Company W.L.L.	Bahrain
		Muharraq STP Company B.S.C.	Bahrain
		Muharraq Holding Company 1 Ltd.	Utd.Arab Emir.
		Samsung Ingenieria Mexico Construccion Y Operacion S.A. De C.V.	Mexico
		Samsung Engineering Trinidad Co., Ltd.	Trinidad,Tobago
		Samsung Ingenieria Manzanillo, S.A. De C.V.	Mexico
		Grupo Samsung Ingenieria Mexico, S.A. De C.V.	Mexico
		Samsung Ingenieria Energia S.A. De C.V.	Mexico
		Samsung Engineering Bolivia S.A	Bolivia
		Samsung Ingenieria DUBA S.A. de C.V.	Mexico
		Samsung Engineering Kazakhstan L.L.P.	Kazakhstan
		SEA Construction, LLC	USA
		SEA Louisiana Construction, L.L.C.	USA
		Samsung EPC Company Ltd.	Saudi Arabia
		Muharraq Holding Company 2 Ltd.	Utd.Arab Emir.
		Asociados Constructores DBNR, S.A. de C.V.	Mexico
		S-1 CORPORATION HUNGARY LLC	Hungary
		S-1 CORPORATION VIETNAM CO., LTD	Vietnam
		Samsung Beijing Security Systems	China
		PENGTAI INTERACTIVE ADVERTISING CO.,LTD	China

Listing	No. of affiliates	Name of affiliates	Country
		Cheil USA Inc.	USA
		Cheil Central America Inc.	USA
		Iris Worldwide Holdings Limited	United Kingdom
		CHEIL EUROPE LIMITED	United Kingdom
		Cheil Germany GmbH	Germany
		Cheil France SAS	France
		CHEIL SPAIN S.L	Spain
		Cheil Benelux B.V.	Netherlands
		Cheil Nordic AB	Sweden
		Cheil India Private Limited	India
		Cheil (Thailand) Ltd.	Thailand
		Cheil Singapore Pte. Ltd.	Singapore
		CHEIL VIETNAM COMPANY LIMITED	Vietnam
		Cheil Integrated Marketing Philippines, Inc.	Philippines
		CHEIL MALAYSIA SDN. BHD.	Malaysia
		Cheil New Zealand Limited	New Zealand
		CHEIL CHINA	China
		Cheil Hong Kong Ltd.	Hong Kong
		Caishu (Shanghai) Business Consulting Co., Ltd	China
		Cheil MEA FZ-LLC	Utd.Arab Emir.
		Cheil South Africa (Pty) Ltd	South Africa
		CHEIL KENYA LIMITED	Kenya
		Cheil Communications Nigeria Ltd.	Nigeria
		Cheil Worldwide Inc./Jordan LLC.	Jordan
		Cheil Ghana Limited	Ghana
		Cheil Egypt LLC	Egypt
		Cheil Brasil Comunicacoes Ltda.	Brazil
		Cheil Mexico, S.A. de C.V.	Mexico
		Cheil Chile SpA.	Chile
		Cheil Peru S.A.C.	Peru
		CHEIL ARGENTINA S.A.	Argentina
		Cheil Rus LLC	Russian Fed.
		Cheil Ukraine LLC	Ukraine
		Cheil Kazakhstan LLC	Kazakhstan
		Samsung Hospitality America Inc.	USA
		Shilla Travel Retail Pte. Ltd.	Singapore
		Samsung Shilla Business Service Beijing Co., Ltd.	China
		Shilla Travel Retail Hong Kong Limited	Hong Kong
		Shilla Travel Retail Taiwan Limited	Taiwan
		HDC SHILLA (SHANGHAI) CO., LTD	China
		Samsung Hospitality U.K. Ltd.	United Kingdom
		Samsung Hospitality Europe GmbH	Germany
		SAMSUNG HOSPITALITY ROMANIA SRL	Romania
		Samsung Hospitality Vietnam Co., Ltd.	Vietnam
		Samsung Hospitality Philippines Inc.	Philippines
		Samsung Hospitality India Private Limited	India
		Samsung Venture Investment (Shanghai) Co., Ltd.	China
		Iris (USA) Inc.	USA

Listing	No. of affiliates	Name of affiliates	Country
		Iris Atlanta, Inc.	USA
		89 Degrees, Inc.	USA
		The Barbarian Group LLC	USA
		McKinney Ventures LLC	USA
		Iris Nation Worldwide Limited	United Kingdom
		Iris Americas, Inc.	USA
		Irisnation Latina No.2, S. de R.L. de C.V.	Mexico
		Irisnation Latina, S. de R.L. de C.V.	Mexico
		Pricing Solutions Ltd	Canada
		Iris London Limited	United Kingdom
		Iris Promotional Marketing Ltd	United Kingdom
		Iris Ventures 1 Limited	United Kingdom
		Founded Partners Limited	United Kingdom
		Iris Korea Limited	United Kingdom
		Iris Digital Limited	United Kingdom
		Iris Amsterdam B.V.	Netherlands
		Iris Ventures (Worldwide) Limited	United Kingdom
		Iris Culture Limited	United Kingdom
		Concise Consultants Limited	United Kingdom
		Atom42 Ltd	United Kingdom
		WDMP Limited	United Kingdom
		Pricing Solutions (UK) Limited	United Kingdom
		Iris Services Limited Dooel Skopje	Macedonia
		Irisnation Singapore Pte. Ltd.	Singapore
		Iris Worldwide Integrated Marketing Private Limited	India
		Iris Sydney PTY Ltd	Australia
		Iris Worldwide (Thailand) Limited	Thailand
		Iris Partners LLP	United Kingdom
		Holdings BR185 Limited	Brit.Virgin Is.
		Iris Germany GmbH	Germany
		Founded, Inc.	USA
		Pepper NA, Inc.	USA
		Pepper Technologies Pte. Ltd.	Singapore
		Beattie McGuinness Bungay Limited	United Kingdom
		Cheil Italia S.r.l	Italy
		Cheil Austria GmbH	Austria
		Centrade Integrated SRL	Romania
		Centrade Cheil HU Kft.	Hungary
		Centrade Cheil Adriatic D.O.O.	Serbia/Monten.
		Experience Commerce Software Private Limited	India
		Pengtai Greater China Company Limited	Hong Kong
		PT. CHEIL WORLDWIDE INDONESIA	Indonesia
		Cheil Philippines Inc.	Philippines
		Shilla Retail Plus Pte. Ltd.	Singapore
		Tianjin Samsung International Travel Service Co., Ltd	China
		Shilla Retail Limited	Macau
		Shilla Travel Retail Duty Free HK Limited	Hong Kong
		One Agency FZ-LLC	Utd.Arab Emir.

Listing	No. of affiliates	Name of affiliates	Country
		One RX Project Management Design and Production Limited Company	Turkey
		One RX India Private Limited	India
		ONE RX INTERIOR DECORATION L.L.C	Utd.Arab Emir.
		ONE AGENCY PRINTING L.L.C	Utd.Arab Emir.
		One Agency South Africa (Pty) Ltd	South Africa
		Brazil 185 Participacoes Ltda	Brazil
		Iris Router Marketing Ltda	Brazil

3. Equity investments in other corporations (detailed)

The total book value of equity investments in other corporations as of June 30, 2022 is KRW 58,867 billion (for the purpose of management participation, etc.).

[As of June 30, 2022]

(1,000 shares, KRW million, %)

Listing	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/decrease			Ending Balance			Current Financial Stats	
					Qty	Owner ship (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Owner ship (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Listed	Samsung Electro-Mechanics	1977.01	Management Participation	250	17,693	23.7	445,244	-	-	-	17,693	23.7	445,244	9,941,374	915,432
Listed	Samsung SDI	1977.01	Management Participation	304	13,463	19.6	1,242,605	-	-	-	13,463	19.6	1,242,605	25,833,193	1,250,402
Listed	Samsung Heavy Industries	1977.09	Management Participation	125	134,027	15.2	759,935	-	-	53,611	134,027	15.2	813,546	12,138,596	-1,452,070
Listed	Hotel Shilla	1979.12	Management Participation	252	2,005	5.1	156,368	-	-	-13,632	2,005	5.1	142,736	2,656,450	27,059
Listed	Cheil Worldwide	1988.09	Management Participation	185	29,038	25.2	491,599	-	-	-	29,038	25.2	491,599	2,542,111	167,599
Listed	Samsung SDS	1992.07	Management Participation	6,160	17,472	22.6	560,827	-	-	-	17,472	22.6	560,827	10,517,432	633,381
Listed	Samsung BioLogics	2011.04	Management Participation	30,000	20,837	31.5	443,193	1,380	1,152,699	-	22,217	31.2	1,595,892	7,970,011	393,589
Unlisted	Samsung Display	2012.04	Management Participation	16,009,547	221,969	84.8	18,509,307	-	-	-	221,969	84.8	18,509,307	59,994,104	3,511,314
Unlisted	STECO	1995.06	Management Participation	24,000	2,590	70.0	35,861	-	-	-	2,590	70.0	35,861	153,976	9,630
Unlisted	SEMES	1992.12	Management Participation	1,000	2,173	91.5	71,906	-	-	-	2,173	91.5	71,906	1,934,072	264,283
Unlisted	Samsung Electronics Service	1998.01	Management Participation	30,000	6,000	99.3	48,121	-	-	-	6,000	99.3	48,121	562,348	21,122
Unlisted	Samsung Electronics Sales	2000.12	Management Participation	3,100	1,767	100.0	247,523	-	-	-	1,767	100.0	247,523	1,374,619	7,448
Unlisted	Samsung Electronics Logitech	1999.04	Management Participation	76	1,011	100.0	46,669	-	-	-	1,011	100.0	46,669	386,841	6,076
Unlisted	Samsung Medison	2011.02	Management Participation	286,384	87,350	68.5	369,169	-	-	-	87,350	68.5	369,169	451,830	58,928
Unlisted	Samsung Global Research	1991.05	Management Participation	320	3,576	29.8	24,942	-	-	-	3,576	29.8	24,942	174,491	190
Unlisted	Samsung Venture Investment	1999.11	Management Participation	4,900	980	16.3	22,198	-	-	6,260	980	16.3	28,458	186,149	39,250
Unlisted	SVIC #21	2011.11	Management Participation	19,800	0	99.0	5,707	-	-	-	0	99.0	5,707	123,575	98,824
Unlisted	SVIC #22	2011.11	Management Participation	19,800	1	99.0	75,458	-0	-25,938	-	0	99.0	49,520	93,345	30,312

Listing	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/decrease			Ending Balance			Current Financial Stats	
					Qty	Owner ship (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Owner ship (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	SVIC #26	2014.11	Management Participation	19,800	2	99.0	96,443	-0	-20,790	-	1	99.0	75,653	81,623	-435
Unlisted	SVIC #28	2015.02	Management Participation	7,425	1	99.0	69,710	0	228	-	1	99.0	69,938	498,438	231,970
Unlisted	SVIC #32	2016.08	Management Participation	19,800	2	99.0	171,141	-0	-27,720	-	1	99.0	143,421	355,271	75,710
Unlisted	SVIC #33	2016.11	Management Participation	4,950	2	99.0	166,974	0	5,148	-	2	99.0	172,122	396,087	60,496
Unlisted	SVIC #42	2018.11	Management Participation	4,950	0	99.0	18,657	0	7,858	-	0	99.0	26,515	15,429	-741
Unlisted	SVIC #45	2019.05	Management Participation	19,800	2	99.0	173,042	0	7,411	-	2	99.0	180,453	169,143	7,121
Unlisted	SVIC #52	2021.05	Management Participation	9,900	0	99.0	9,900	0	34,749	-	0	99.0	44,649	9,102	-1,532
Unlisted	SVIC #56	2021.11	Management Participation	22,084	0	99.0	22,084	0	2,970	-	0	99.0	25,054	22,404	-112
Unlisted	Semiconductor Growth Fund	2017.03	Management Participation	500	50,000,000	66.7	50,000	-	-	-	50,000,000	66.7	50,000	74,436	-646
Unlisted	System LSI Mutual benefit private equity trust	2020.04	Management Participation	25,000	50,000,000	62.5	50,000	-	-	-	50,000,000	62.5	50,000	79,710	-330
Listed	iMarket Korea	2000.12	Management Participation	1,900	647	1.9	6,926	-	-	-259	647	1.9	6,667	1,120,160	44,499
Listed	KT Skylife	2001.12	Simple Investment	3,344	240	0.5	2,194	-	-	-228	240	0.5	1,966	1,275,645	62,309
Listed	Yongpyong Resort	2007.05	Simple Investment	1,869	400	0.8	1,958	-	-	-358	400	0.8	1,600	841,500	8,674
Listed	ATech Solution	2009.11	Simple Investment	26,348	1,592	15.9	26,188	-	-	-4,776	1,592	15.9	21,412	199,719	5,590
Listed	Wonik Holdings	2013.12	Management Participation	15,411	1,759	2.3	8,761	-	-	-2,067	1,759	2.3	6,694	1,944,702	142,889
Listed	Wonik IPS	2016.04	Management Participation	16,214	1,851	3.8	78,295	-	-	-23,137	1,851	3.8	55,158	1,167,586	145,117
Listed	Dongjin Semichem	2017.11	Management Participation	48,277	2,468	4.8	125,863	-	-	-46,644	2,468	4.8	79,219	1,186,189	102,879
Listed	Soulbrain Holdings	2017.11	Management Participation	30,752	462	2.2	15,976	-	-	-7,087	462	2.2	8,889	1,523,516	29,996
Listed	Soulbrain	2020.07	Management Participation	24,866	373	4.8	103,983	-	-	-18,631	373	4.8	85,352	829,947	152,221
Listed	S&S Tech	2020.08	Management Participation	65,933	1,716	8.0	63,153	-	-	-29,260	1,716	8.0	33,893	197,439	11,499
Listed	YIK Corp	2020.08	Management Participation	47,336	9,602	11.7	59,530	-	-	-21,076	9,602	11.7	38,454	459,888	50,931

Listing	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/decrease			Ending Balance			Current Financial Stats	
					Qty	Owner ship (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Owner ship (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Listed	KCTech	2020.11	Management Participation	20,720	1,022	4.9	24,584	-	-	-6,133	1,022	4.9	18,451	453,026	41,947
Listed	lotvacuum	2020.11	Management Participation	18,990	1,268	7.1	21,804	-	-	-7,543	1,268	7.1	14,261	263,803	20,697
Listed	NEW POWER PLASMA	2020.11	Management Participation	12,739	2,141	4.9	13,723	-	-	-5,427	2,141	4.9	8,296	534,746	27,299
Listed	FineSemitech	2021.03	Management Participation	43,009	1,523	7.0	38,607	-	-	-16,448	1,523	7.0	22,159	345,877	28,216
Listed	DNF	2021.08	Management Participation	20,964	810	7.0	18,509	-	-	-7,250	810	7.0	11,259	191,707	11,775
Listed	Marvell	2021.10	Simple Investment	11,705	173	0.0	17,963	-	-	-8,216	173	0.0	9,747	26,103,337	-481,666
Unlisted	The Korea Economic Daily	1987.05	Simple Investment	150	72	0.4	365	-	-	-	72	0.4	365	446,272	41,775
Unlisted	Korea Business Banking	1995.01	Simple Investment	5,000	1,000	17.2	2,964	-	-	-	1,000	17.2	2,964	85,896	1,150
Unlisted	Cyber Bank	2000.12	Simple Investment	8,000	1,083	7.5	0	-	-	-	1,083	7.5	0	0	0
Unlisted	FineChips	2001.12	Simple Investment	10	2	3.2	10	-	-	-	2	3.3	10	12,090	1,187
Unlisted	Inkel	2006.11	Simple Investment	130	0	0.0	0	-	-	-	0	0.0	0	60,103	-1,142
Unlisted	Intellectual Discovery	2011.05	Simple Investment	5,000	357	10.7	1,922	-	-	-	357	10.7	1,922	60,847	10,718
Unlisted	Maltani Corp.	2012.04	Simple Investment	16,544	45	15.0	8,825	-	-	-262	45	15.0	8,563	67,792	-1,641
Unlisted	Pantech	2013.06	Simple Investment	53,000	53,000	10.0	0	-	-	-	53,000	10.0	0	8,151	-11,411
Unlisted	AI Research Institute	2016.07	Simple Investment	3,000	600	14.3	3,000	-	-	-	600	14.3	3,000	9,040	-3,519
Unlisted	Mico Ceramics	2020.11	Management Participation	21,667	747	13.7	24,636	-	-	165	747	13.7	24,801	143,870	9,419
Unlisted	Shinsung Eng & Construction	2010.07	Simple Investment	1	0	0.0	0	-	-	-	0	0.0	0	165,328	3,411
Unlisted	Woobang	2010.07	Simple Investment	0	1	0.0	0	-	-	-	1	0.0	0	650,568	104,874
Unlisted	Sambo Computer	2012.09	Simple Investment	0	0	0.0	0	-	-	-	0	0.0	0	58,785	2,300
Unlisted	Daewoo Development	2012.12	Simple Investment	0	0	0.0	0	-	-	-	0	0.0	0	308,326	10,859
Unlisted	Daewoo Songdo Development	2012.12	Simple Investment	0	9	0.0	0	-	-	-	9	0.0	0	19,369	-350

Listing	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/decrease			Ending Balance			Current Financial Stats	
					Qty	Owner ship (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Owner ship (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	Zyle Motor Sales	2012.12	Simple Investment	0	1	0.0	0	-	-	-	1	0.0	0	395,780	-10,354
Unlisted	Sungwon Construction	2014.04	Simple Investment	0	1	0.0	0	-	-	-	1	0.0	0	27,744	-627
Unlisted	Inhee	2014.04	Simple Investment	0	0	0.1	0	-	-	-	0	0.1	0	2,232	-128
Unlisted	Point Anybeam	2019.12	Simple Investment	61	12	3.5	61	-	-	-	12	3.5	61	1,359	-181
Unlisted	JNT	2011.02	Simple Investment	1,800	0	24.0	1,758	-	-	-	0	24.0	1,758	3,501	-2
Unlisted	Daishin Aju IB	2011.08	Simple Investment	258	0	3.0	258	0	-258	-	-	-	-	-	-
Unlisted	L&S	2012.07	Simple Investment	848	0	7.5	1	-	-	-	0	7.5	1	53,924	-967
Unlisted	KTCNP-GC	2013.12	Simple Investment	960	0	3.6	1,816	-	-	-	0	3.6	1,816	82,179	-15,438
Unlisted	POSCO Social Enterprise Fund	2013.12	Simple Investment	600	0	10.0	60	-	-	-	0	10.0	60	726	324
Unlisted	Bearport Resort	2022.04	Simple Investment	-	-	-	-	51	0	-	51	0.5	0	94,074	641
Unlisted	SEA	1978.07	Management Participation	59,362	492	100.0	17,166,557	-	-	-	492	100.0	17,166,557	42,982,054	823,914
Unlisted	SECA	1992.08	Management Participation	3,823	0	100.0	90,922	-	-	-	0	100.0	90,922	1,861,549	9,679
Unlisted	SEDA	1994.01	Management Participation	13,224	77,205,709	87.0	647,620	-	-	-	77,205,709	87.0	647,620	4,589,505	490,202
Unlisted	SEM	1995.07	Management Participation	3,032	3,837	63.6	165,638	-	-	-	3,837	63.6	165,638	1,417,629	74,731
Unlisted	SELA	1989.04	Management Participation	319	40	100.0	86,962	-	-	-	40	100.0	86,962	687,592	30,921
Unlisted	SEASA	1996.06	Management Participation	4,696	21,854	98.0	6,779	-	-	-	21,854	98.0	6,779	72,793	8,097
Unlisted	SECH	2002.12	Management Participation	597	0	4.1	597	-	-	-	0	4.1	597	737,184	69,566
Unlisted	SEUK	1995.07	Management Participation	33,908	109,546	100.0	433,202	-	-	-	109,546	100.0	433,202	2,925,062	241,403
Unlisted	SEL	1998.12	Management Participation	8,280	4,393	100.0	0	-	-	-	4,393	100.0	0	7,030	0
Unlisted	SEHG	1982.02	Management Participation	28,042	0	100.0	354,846	-	-	-	0	100.0	354,846	395,130	113,378
Unlisted	SEF	1991.08	Management Participation	230	2,700	100.0	234,115	-	-	-	2,700	100.0	234,115	1,727,313	73,640

Listing	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/decrease			Ending Balance			Current Financial Stats	
					Qty	Owner ship (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Owner ship (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	SEI	1993.05	Management Participation	862	677	100.0	143,181	-	-	-	677	100.0	143,181	1,477,767	55,657
Unlisted	SESA	1989.01	Management Participation	3,276	8,021	100.0	142,091	-	-	-	8,021	100.0	142,091	1,208,209	46,703
Unlisted	SEP	1982.09	Management Participation	204	1,751	100.0	37,616	-	-	-	1,751	100.0	37,616	271,224	7,183
Unlisted	SEH	1991.05	Management Participation	1,954	753	100.0	650,157	-	-	-	753	100.0	650,157	2,504,075	157,616
Unlisted	SELS	1991.05	Management Participation	18,314	1,306	100.0	24,288	-	-	-	1,306	100.0	24,288	2,305,275	13,943
Unlisted	SEBN	1995.07	Management Participation	236	539,138	100.0	914,751	-	-	-	539,138	100.0	914,751	2,612,357	284,816
Unlisted	SEEH	2008.01	Management Participation	4,214	0	100.0	1,369,992	-	-	-	0	100.0	1,369,992	14,651,496	24,527
Unlisted	SENA	1992.03	Management Participation	392	1,000	100.0	69,372	-	-	-	1,000	100.0	69,372	1,408,535	43,962
Unlisted	SESK	2002.06	Management Participation	8,976	0	55.7	263,767	-	-	-	0	55.7	263,767	1,644,977	77,453
Unlisted	SEPOL	1996.04	Management Participation	5,462	106	100.0	78,267	-	-	-	106	100.0	78,267	1,141,465	61,622
Unlisted	SEAG	2002.01	Management Participation	40	0	100.0	32,162	-	-	-	0	100.0	32,162	536,140	22,163
Unlisted	SERC	2006.01	Management Participation	24,877	0	100.0	188,290	-	-	-	0	100.0	188,290	1,714,693	93,530
Unlisted	SERK	2007.07	Management Participation	4,600	0	100.0	204,555	-	-	-	0	100.0	204,555	1,338,993	77,697
Unlisted	SEO	1997.01	Management Participation	120	0	100.0	-10,043	-	-	-	0	100.0	-10,043	1,863	-166
Unlisted	SGE	1995.05	Management Participation	827	0	100.0	32,836	-	-	-	0	100.0	32,836	1,776,336	30,755
Unlisted	SEEG	2012.07	Management Participation	23	0	0.1	39	-	-	-	0	0.1	39	946,599	56,203
Unlisted	SSA	1998.12	Management Participation	263	2,000	100.0	32,622	-	-	-	2,000	100.0	32,622	500,605	37,741
Unlisted	SAPL	2006.07	Management Participation	793	877,133	100.0	981,483	-	-	-	877,133	100.0	981,483	14,683,789	4,668,478
Unlisted	SME	2003.05	Management Participation	4,796	17,100	100.0	7,644	-	-	-	17,100	100.0	7,644	625,662	19,314
Unlisted	SDMA	1995.03	Management Participation	21,876	71,400	75.0	18,741	-	-	-	71,400	75.0	18,741	24,681	-716
Unlisted	SEMA	1989.09	Management Participation	4,378	16,247	100.0	103,402	-	-	-	16,247	100.0	103,402	263,523	19,651

Listing	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/decrease			Ending Balance			Current Financial Stats	
					Qty	Owner ship (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Owner ship (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	SAVINA	1995.01	Management Participation	5,839	0	100.0	28,365	-	-	-	0	100.0	28,365	105,109	26,857
Unlisted	SEIN	1991.08	Management Participation	7,463	46	100.0	118,909	-	-	-	46	100.0	118,909	1,139,901	48,291
Unlisted	TSE	1988.01	Management Participation	1,390	11,020	91.8	279,163	-	-	-	11,020	91.8	279,163	3,018,358	142,191
Unlisted	SEAU	1987.11	Management Participation	392	53,200	100.0	111,964	-	-	-	53,200	100.0	111,964	765,487	36,687
Unlisted	SIEL	1995.08	Management Participation	5,414	216,787	100.0	75,263	-	-	-	216,787	100.0	75,263	7,765,019	522,672
Unlisted	SRI-B	2005.05	Management Participation	7,358	17	100.0	31,787	-	-	-	17	100.0	31,787	477,710	52,314
Unlisted	SJC	1975.12	Management Participation	273	1,560	100.0	253,108	-	-	-	1,560	100.0	253,108	1,311,938	19,009
Unlisted	SRJ	1992.08	Management Participation	3,120	122	100.0	117,257	-	-	-	122	100.0	117,257	161,184	3,222
Unlisted	SCIC	1996.03	Management Participation	23,253	0	100.0	640,452	-	-	-	0	100.0	640,452	13,599,093	451,062
Unlisted	SEHK	1988.09	Management Participation	349	274,250	100.0	79,033	-	-	-	274,250	100.0	79,033	1,788,990	21,613
Unlisted	SET	1994.11	Management Participation	456	27,270	100.0	112,949	-	-	-	27,270	100.0	112,949	2,033,992	50,966
Unlisted	TSEC	1993.04	Management Participation	15,064	0	48.2	103,134	-	-	-	0	48.2	103,134	551,511	82,218
Unlisted	SSEC	1995.04	Management Participation	32,128	0	69.1	130,551	-	-	-	0	69.1	130,551	670,959	77,078
Unlisted	SESC	2002.09	Management Participation	5,471	0	73.7	34,028	-	-	-	0	73.7	34,028	147,973	14,071
Unlisted	TSTC	2001.03	Management Participation	10,813	0	90.0	260,092	-	-	-	0	90.0	260,092	654,546	8,285
Unlisted	SSS	2001.01	Management Participation	1,200	0	100.0	19,189	-	-	-	0	100.0	19,189	7,765,126	325,397
Unlisted	SCS	2012.09	Management Participation	111,770	0	100.0	5,275,760	-	-	-	0	100.0	5,275,760	19,049,536	1,708,832
Unlisted	SSCX	2016.04	Management Participation	1,141	0	100.0	1,141	-	-	-	0	100.0	1,141	1,154,516	46,597
Unlisted	SESS	1994.12	Management Participation	18,875	0	100.0	504,313	-	-	-	0	100.0	504,313	1,477,600	94,586
Unlisted	TSLED	2012.04	Management Participation	119,519	0	100.0	119,519	-	-	-	0	100.0	119,519	567,151	-35,518
Unlisted	SSCR	2006.09	Management Participation	3,405	0	100.0	9,332	-	-	-	0	100.0	9,332	68,955	7,843

Listing	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/decrease			Ending Balance			Current Financial Stats	
					Qty	Owner ship (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Owner ship (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	TSST Japan	2004.03	Management Participation	1,639	30	49.0	0	-	-	-	30	49.0	0	159	-21
Unlisted	STE	1996.01	Management Participation	4,206	2	49.0	0	-	-	-	2	49.0	0	6,643	0
Unlisted	Semiconductor Portal	2002.12	Simple Investment	38	0	1.2	10	-	-	-	0	1.2	10	1,981	159
Unlisted	Nanosys	2010.08	Simple Investment	4,774	2,000	0.8	2,387	-	-	-	2,000	0.8	2,387	144,024	-10,951
Unlisted	One-Blue	2011.07	Management Participation	1,766	0	16.7	1,766	-	-	-	0	16.7	1,766	19,960	603
Unlisted	TidalScale	2013.08	Simple Investment	1,112	2,882	4.3	1,112	-	-	-	2,882	4.3	1,112	6,067	-6,521
Unlisted	Sentiance	2012.12	Simple Investment	3,422	7	7.2	3,422	-	-	-	7	7.2	3,422	13,840	-2,927
Unlisted	Mantis Vision	2014.01	Simple Investment	1,594	355	2.1	1,980	-	-	-	355	2.1	1,980	19,901	-27,332
Unlisted	Leman	2014.08	Simple Investment	1,019	17	3.4	1,019	-	-	-	17	3.4	1,019	3,602	-3,363
Unlisted	Keyssa	2016.01	Simple Investment	3,332	1,235	1.9	3,332	-	-	-	1,235	1.9	3,332	6,371	-16,193
Unlisted	SensiFree	2016.01	Simple Investment	2,111	666	9.5	2,111	-	-	-	666	9.5	2,111	1,119	-1,710
Unlisted	Unispectral	2016.02	Simple Investment	1,112	2,308	7.9	2,130	-	-	-	2,308	7.9	2,130	3,357	-2,757
Unlisted	Quobyte	2016.04	Simple Investment	2,865	729	11.8	2,865	-	-	-	729	11.8	2,865	2,391	-82
Unlisted	Afero	2016.05	Simple Investment	5,685	723	5.5	5,685	-	-	-	723	5.5	5,685	59,600	-6,289
Unlisted	Graphcore	2016.06	Simple Investment	3,494	12,000	1.4	3,494	-	-	-	12,000	1.4	3,494	279,496	-148,852
Listed	Soundhound	2016.12	Simple Investment	7,059	306	1.1	7,059	1,415	6,659	-7,756	1,721	0.9	5,962	58,330	-91,002
Unlisted	Almotive	2017.12	Simple Investment	3,302	2	3.2	3,302	-	-	-	2	3.2	3,302	50,466	-6,913
Unlisted	Fasetto	2019.01	Simple Investment	6,701	475	5.2	12,554	-	-	-	475	5.2	12,554	4,129	-7,665

※ Based on separate financial statements.

※ Ownership percentage is calculated based on the number of common shares issued.

※ The Company measures fairvalue of financial instruments (equity shares) in accordance with K-IFRS. The Company annually evaluates if there is indication of impairment that investment in subsidiaries or affiliates may be impaired, and estimates the recoverable amount of assets with indication of impairment.

※ Financial stats of Sungwon Construction is as of December 31, 2016, financial stats of Daewoo Songdo Development is as of December 31, 2017, financial stats of Mantis Vision is as of December 31 2019, and financial stats of Graphcore is as of December 31 2020, due to difficulties in obtaining the most recent financial data.

4. R&D results (detailed)

DX Division	
Research project	Details
Visual Display	
QLED 8K TV February 2019–June 2020	<ul style="list-style-type: none"> □ Flat QLED 8K TV (65/75/85") <ul style="list-style-type: none"> - Blends well with walls: flat design and Infinity screen; no border between screen and bezel—a world's first. - Innovative form factor: metal stand which gives a floating impression - QLED 8K enables picture quality close to real life, high resolution via AI upscaling, True Reality picture quality in any given environment - Multi-sound channel and Object Tracking Sound+ synchronize video and sound, maximizing surround sound experience - Wide range of content, multimedia experiences, and entertainment-specific functions provide convenient and colorful experiences
Neo QLED 8K March 2021–March 2022	<ul style="list-style-type: none"> - □ Ultra high-resolution, slim 8K TV based on Mini LED technology (65 · 75 · 85") - QN900 (65 · 75 · 85") / QN800 (65 · 75 · 85") / QN700 (65 · 75") - QLED 8K resolution offers viewing experience as if looking at real-life objects, with enhanced contrast of sophisticated Mini LED - Added the feature of 'OTS Pro (Object Tracking Sound Pro)'
Neo QLED 4K March 2021-March 2022	<ul style="list-style-type: none"> □ Mini LED-based products come in 3 series and up to 7 sizes (43 · 50 · 55 · 65 · 75 · 85 · 98") □ Slim design by adopting Mini LED, premium look with bezel-less/metal design <ul style="list-style-type: none"> - New LED with Quantum Nano-Layer Multi-Cell structure, enabling slim design, high luminance efficiency, luminance profile control - Enhanced gradation by four times; expresses bright and dark areas more elaborately
QD-Display TV ~March 2022	<ul style="list-style-type: none"> □ Quantum-Dot-based self-emitting Display Flat 4K TV (55 · 65") □ QD-Display TV that provides true value of TV with full applications from Quantum-Dot-based high-definition self-emitting Display and sleek Blade Slim Design to OTS and True Ch. ATMOS
QLED 4K TV ~March 2022	<ul style="list-style-type: none"> □ Flat QLED 4K TV (43 · 50 · 55 · 60 · 65 · 70 · 75 · 82 · 85") □ Specs and features <ul style="list-style-type: none"> - Flagship QLED maximizes viewing experience with the highest picture quality within 4K (AI/brightness/viewing angle) and sound quality (OTS) - Maximizes immersive experience with the highest level of brightness contrast, free viewing angle, life-like color, and optimal brightness - Optimal viewing experience by identifying user context based on voice recognition and AI technologies - Supports Google Duo when connected with a webcam
UHD TV ~March 2022	<ul style="list-style-type: none"> □ Flat UHD TV (43 · 50 · 55 · 58 · 65 · 70 · 75 · 82 · 85") □ Specs and features <ul style="list-style-type: none"> - UHD Smart TV with slim, bezel-less design provides colors close to real-life - UHD picture quality expresses picture quality of original content through Dynamic Crystal Color and Dual LED - Provides a multi-media screen experience, rich content, and complete smart experience via smart home experience - Enhanced Smart experiences with the addition of Game Home, IoT Hub, and Watch/Chat together functions

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Research project	Details
Lifestyle TV ~March 2022	<ul style="list-style-type: none"> □ The SERO (43") <ul style="list-style-type: none"> - Simple, modern vertical screen that rotates 360 degrees with flat-type speaker - Easily installed in any living space, mobile floor stand included - Significantly improved VoC compared to existing products with anti-glare/anti-reflective screen even for rotated form factor □ The Frame (32 · 43 · 50 · 55 · 65 · 75 · 85") <ul style="list-style-type: none"> - Design resembles a real picture frame; completes a picture frame experience - Exhibit various famous paintings and pictures; adopted lifestyle design which blends in with the interior - Additional introduction of 85" to meet the needs for ultra-large Lifestyle products - Completes the Real Frame experience with the anti-glare/anti-reflective screen that shows a paper-like image □ The Serif (43 · 49 · 55 · 65") <ul style="list-style-type: none"> - I-shaped serif font design; distinct from other products; works as beautiful interior design object - Additional introduction of 65" to expand the position of large screen products - Design that resembles a piece of furniture with the anti-glare/anti-reflective screen that shows a matte image □ Outdoor TV (55 · 65 · 75") <ul style="list-style-type: none"> - Differentiated product tailored to a lifestyle of relaxing and enjoying entertainment outdoors □ The Premiere (100–130") <ul style="list-style-type: none"> - Ultra-short-throw laser projector with high-resolution, providing the best Smart UX/OTT experience in the industry - Complements any environment with blended design, can be placed directly in front of a wall and has an easily adjustable screen size. - Complete experience of our TV models including the differentiated picture quality and sound □ The Freestyle (30–100") <ul style="list-style-type: none"> - Movable Smart Screen that enables users to enjoy content anytime, anywhere - Easy to set up in various locations and provides an optimal viewing experience regardless of angle/distance (Auto Focus/Auto Keystone) - Added usability via the basic cradle, enabling easy placement in various locations; and the socket adapter expands usability.
Micro-LED TV ~January 2022	<ul style="list-style-type: none"> □ The Wall 2.0 (110") <ul style="list-style-type: none"> - Released completed version of Micro-LED to strengthen technology leadership and dominance of Micro-LED market - Ultra-large Home Screen that reproduces the real world on display - Micro-LED picture quality with a sense of space and depth that seems like the real thing without limitation on resolution
Sound Bar ~March 2022	<ul style="list-style-type: none"> □ Soundbar <ul style="list-style-type: none"> - Bar-shaped audio product well suited to TVs - Adopted AI solution enabling voice recognition - Adopted 3D surround system, creating enriching sounds close to first-hand experiences □ Sound Bar Q990B <ul style="list-style-type: none"> - Industry's first wireless ATMOS transmission from TV to soundbar - Provides the optimal Cinema True ATMOS just like in the cinema, utilizing all channels of TV and soundbar - Equipped with soundbar room-correction technology
Monitor January 2021–June 2022	<ul style="list-style-type: none"> □ Space monitor <ul style="list-style-type: none"> - Application of integrated arm stand that minimizes space needed for the monitor □ Neo QLED Gaming monitor (49") <ul style="list-style-type: none"> - Strengthened black gamut based on enhanced brightness contrast by applying Neo QLED - More immersive gaming experience with 1000R curvature—the world's highest □ High-resolution QHD monitor (34") <ul style="list-style-type: none"> - Offers picture solution comfortable to the eye with Intelligent Eye Care solution, etc. □ LCD Smart monitor <ul style="list-style-type: none"> - Enjoy VOD services without using a PC via Smart TV services (Netflix, YouTube, etc.) □ Smart monitor M80B (32") <ul style="list-style-type: none"> - Ultra-slim, flat back, lifestyle design that adopts Warm White color - Includes magnetic-mount webcam - Strengthened smart experiences (watching VOD/connecting mobile devices/PC-less function/IoT/communication/game) □ Gaming monitor G85NB (32") <ul style="list-style-type: none"> - World's first UHD 240Hz 1ms (GTG) gaming monitor with premium gaming performance features (1000R Curved) - Odyssey Neo that offers a new level of picture quality experience (Mini LED, Quantum HDR2000)
Signage October 2019–June 2021	<ul style="list-style-type: none"> □ LCD-based B2B Smart Signage (LFD, Video Wall, etc.) (49 · 55 · 65 · 75 · 85 · 98") □ Indoor/outdoor signage using LED □ All-in-one Kiosk (24"), all additional equipment embedded <ul style="list-style-type: none"> - Payment platform for developing Tizen payment module and ordering app, antibacterial finishing □ Flip-edu (75 · 85") interactive feature for education

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Research project	Details
Home appliances	
Refrigerators ~February 2022	<ul style="list-style-type: none"> □ Chef Collection refrigerator <ul style="list-style-type: none"> - High-end, premium refrigerator - Premium Bespoke design and new CMF - Features water & ice solution: Auto fill pitcher, auto ice maker (dual mode: cocktail Ice, standard Ice) - FDSR energy efficiency grade 1 □ Cube refrigerator <ul style="list-style-type: none"> - Multi Cube refrigerator: customized design and storage (different temperatures for storing wine, beer, and cosmetic products) - Peltier System identifies and creates optimal temperature (between 5–18°C) - Double Glass System blocks UV and maintains the right temperature - Wi-Fi Control enables real-time monitoring and control - RM (Remote Management) Function: remote assessment and repair, provides information on expiration date of beverages in the fridge □ New TMF in North/Latin America <ul style="list-style-type: none"> - Strengthened competitiveness and offered differentiation with large capacity (440L/480L), specialized storage compartments, and new design - Flex Zone (fridge 1°C /chilled -1°C /soft freezing) & Quick Chill Smart Alarm - Strengthened competitiveness with flat door & Bespoke CMF, capacity (20L more), and optimal size - Dual voltage, auto ice maker, water dispenser, Big Box, Hygienic □ 1-Door Premium Kitchen Fit Refrigerator (freezer/fridge/kimchi/wine) <ul style="list-style-type: none"> - Adopted premium Bespoke design and new CMF - Automatic door opening technology - Applied Water & Ice Solution: Auto Fill Pitcher, Dual Auto Ice Maker (cocktail ice, standard ice)
Washer ~January 2022	<ul style="list-style-type: none"> □ Bespoke washer & dryer <ul style="list-style-type: none"> - Bespoke flat design that perfectly fits into your space - Korea's highest capacity all-in-one Control UX design - AI clothing care (AI tailored washing and drying) from washing to drying - Hygiene management solution from 99.9% sterilization to dehumidification of laundry room □ Agitator washer <ul style="list-style-type: none"> - Entrance to the North American market for Agitator (occupied 50% of the Top Loader market) - Implementation of ActiveWave™ Agitator which enables heavy washing along with the reduction of noise, vibration, and entanglement - Implementation of Active Water Jet which enables pretreating of soiled or heavily stained clothes □ Eco-friendly dryer with new refrigerant for Europe <ul style="list-style-type: none"> - Eco-friendly refrigerant: applied environmentally friendly R290 to reduce GHG emissions - Energy label of A+++ : achieved the highest energy rating in Europe - Sensor Dry: senses the degree of dryness during the drying process, capable of automatically adjusting from additional drying to ending the process - Simple UX: improved product usability (delivery of detailed information on drying and customized panel setting) - Hygiene Care: eliminates over 99% of three common types of harmful bacteria (Bacillus pyocyaneus, Escherichia coli, and Staphylococcus aureus) □ Grande AI 24kg washer <ul style="list-style-type: none"> - 24kg, Flat Design (glass type) - Features pet-care cycle (removes stains, smell, and allergens) - Applied auto door opening (door opens automatically after the washing cycle ends) □ BESPOKE Grande AI 20kg dryer <ul style="list-style-type: none"> - Largest available and first 20kg dryer in Korean market, flat design - Features pet-care cycle (specialized in removing fur) - Applied auto door opening (door opens automatically after the drying cycle ends) - Added temperature/humidity sensor to provide dehumidification solutions that sense humidity in the laundry room

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Research project	Details
Air conditioner April 2021	<ul style="list-style-type: none"> □ Wind-Free™ Gallery Floor-standing (56.9 · 62.6 · 75.5 · 81.8 · 92.5 m²) <ul style="list-style-type: none"> - Developed next-gen wind-free platform with the highest level of energy efficiency (56.9 m² single duct model achieved energy efficiency grade 2) - Equipped with wind-free panel 1.5 times larger than previous model and strong booster wind - Booster purification: Filter with 99.95% dust collection efficiency, Design resembling that of furniture, fits comfortably into the surroundings □ Wind-Free™ Gallery Wide air conditioner (24.4 · 29.3 · 39.6 · 49.5 m²) <ul style="list-style-type: none"> - Secured cost competitiveness by developing new integrated QMD-based platform, strengthened product competitiveness - 12% larger fans cools air faster - Wind-free ultra-energy-efficient technology saves up to 77% on electricity - PM1.0 wind-free filtration system removing particles as small as ultra-fine dust □ Bespoke Window Fit air conditioner (17m², green/blue/pink/beige/gray) <ul style="list-style-type: none"> - Convenient self-installation with the integrated indoor/outdoor unit - Strong rotational cooling with double wings which quickly circulate cold air - Twin inverter compressor that enables low noise and vibration level of 37dB, as quiet as a library - Up to 70% lower power consumption in silent mode
Vacuums May 2021	<ul style="list-style-type: none"> □ Bespoke Jet stick vacuum (up to 210W suction) <ul style="list-style-type: none"> - Embedded auto-empty dustbin, smart display of information via LCD Display - Wet Brush dispenses water, thinner cotton-flannel brush □ Jet Bot AI Robot Vacuum <ul style="list-style-type: none"> - Seamless navigation with the realization of world's best object recognition capability (up to 1 cm³) by developing Active 3D sensor and applying it—a world's first - AI autonomous navigation that recognizes house structure and types of objects - Strong suction with jet cyclone and digital inverter motor - Integrated Clean Station which automatically empties dustbin when the Jet Bot starts charging - More convenient cleaning with SmartThings (AI Smart Control) □ Bespoke slim stick vacuum <ul style="list-style-type: none"> - Up to 150W suction with a strong cyclone and digital inverter mode - Self-standing, convenient emptying of the dustbin without having to bend over (Pop & Shoot) - Easy cleaning without pressure on the wrist (ergonomic design)
Cooking appliances March 2021	<ul style="list-style-type: none"> □ Bespoke Cooker <ul style="list-style-type: none"> - Multi-cook function allows cooking multiple dishes with different heat sources, temperatures, and cooking times. - Cook more than one dish and finish at the same time with Multi-cook mode - Collaborated with eight food companies to apply Cooker-exclusive algorithm - Easy automatic cooking with just one scan using SmartThings - Oven interior material changed from enamel to STS for more heat-efficient, sophisticated design.
Water Purifier March 2021	<ul style="list-style-type: none"> □ Water Purifier for homes <ul style="list-style-type: none"> - Modularized water purifier upgradable and customizable to customer's lifestyle; includes auto-care feature - May be modularized to users' needs (ambient/cold/hot water) - Smart AI care, filter received highest number of NSF certification for tankless water purifier - Bespoke water purifier, customized to users' lifestyle and space
Clothing Care Machine February 2019–May 2021	<ul style="list-style-type: none"> □ Bespoke Air Dresser (18 · 24") <ul style="list-style-type: none"> - AI drying and washing cycle syncing - Long clothing care zone, holds 5 hangers, compared to 3 for 18" model - Real-care (inner-garment care, low noise level), real purification with ultra-fine dust filter, real odor elimination with odor decomposing filter, real-sanitization with jet steam, wrinkle care, real dehumidification dehumidifies the room even with the door closed □ Shoe Dresser <ul style="list-style-type: none"> - Powerful odor elimination with Air Wash and UV odor decomposing filter - Low temperature, delicate drying to make your everyday shoes a pleasure to wear. - 99.9% sterilization with the application of a Xenon UVC disinfection system—a first for home appliances in Korea - Tailored care and management of various types of shoes with Jet Shoe Tree
Air purifier December 2020	<ul style="list-style-type: none"> □ Bespoke Cube air purifier <ul style="list-style-type: none"> - Premium air purifier in Bespoke lineup - Use one of the three specialized filters as needed: sterilization, deodorization, pet - Customizable to the space, interior, and lifestyle - Mountable on walls to fit the interior without compromising dust-removing function with cubic filtration feature
Air-purification ventilation system September 2020	<ul style="list-style-type: none"> □ Air-purification ventilation system <ul style="list-style-type: none"> - Ventilation capacity 33 m², Airflow 40–50CMH - Ventilates and purifies air indoors by linking ventilation system with air-purification module - Individual air-purification for each separate space, circulation & wind-free purification - Sensors detecting CO₂, etc. enables automatic ventilation depending on air quality change

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Research project	Details
Inverter dehumidifier May 2022	<ul style="list-style-type: none"> □ Ultra-quiet inverter dehumidifier with first-class energy efficiency rating in Korea <ul style="list-style-type: none"> - Fast and strong large-capacity dehumidifier with a wide blade - Smart space care that keeps spaces from bathroom to dressing room pleasant - Dries a wide range of clothing—even delicate items—with swing blade - Simple design and compact size that fits anywhere - Low-noise mode that remains quiet throughout extended hours of use
Dishwasher June 2022	<ul style="list-style-type: none"> □ In-house technology platform that has a competitive edge in the European/Korean markets <ul style="list-style-type: none"> - Fit for Tall Tubs for the European market - Secured competitiveness with top-notch energy/water/low-noise specifications - Strengthened premium experiences via differentiating features, such as an automatic dispenser (for Korean detergents) and a simple UX - Differentiated specifications of Z-wash, Smart, Flexible Basket
MX	
Galaxy Foldable September 2019– August 2021	<ul style="list-style-type: none"> □ Galaxy Fold (September 2019) <ul style="list-style-type: none"> - Creating a new market and securing market share by developing world's first in-foldable smart phone - 7.3" QXGA+(1,536×2,152) 1.5R in-foldable display - Secured standard technology by developing hinge for in-foldable phones—a world's first (released Feb 2019) - Offers new user experience tailored to foldable smart phones - Can use up to three apps with multi-active window function, offering unrivaled multitasking environment - When folding or unfolding the phone, provides app using experience with smooth changes between screens with minimal interruption □ Galaxy Z flip (February 2020) <ul style="list-style-type: none"> - Design: New style with innovative foldable display - Screen: Main 6.7" flexible ultra-thin glass (2,636 x 1080) - cover 1.1" super AMOLED (300 x 112) - Size (W x H x D): (unfolded) 73.6mm x 167.3mm x 6.9–7.2mm (folded) 73.6mm x 87.4mm x 15.4–17.3mm - Platform (H/W, S/W): SDM855+, Android 10.0 - Ultra-thin glass technology allows foldable glass display—a first among Galaxy models—and enhances durability - Easy to carry with a new form factor allowing compact size by flip fold - Free-stop feature enables users to freely control the angle of the flip, allowing Flex Mode experience - Screen ratio 21.9:9 enhances suitability of multi active window □ Galaxy Z Fold 2 (September 2020) <ul style="list-style-type: none"> - Screen: Main display 7.6", cover display 6.2" - Size (W x H x D): (folded) 68mm x 159.2mm x 13.8 (~16.8) mm - Platform (H/W, S/W): SDM 865 Plus, Android 10, One UI 2.5 - Supports ultra-high speed 5G and 12MP camera - Infinity Flex Display supports flex mode - Dynamic AMOLED 2X display with 120Hz flexible scan rate - Samsung Ultra Thin Glass - Supports wireless Samsung DeX and UWB - Evolved multi-active window enabling simultaneous use of three apps maximum - Provides app continuity from cover display to main display □ Galaxy Z Fold 3 5G (August 2021) <ul style="list-style-type: none"> - Screen: Main display 7.6", cover display 6.2" - Size (W x H x D): (folded) 158.2mm x 67.1mm x 14.4~16.0mm (unfolded) 158.2mm x 128.1mm x 6.4mm - Platform (H/W, S/W): 5nm 64-bit octa-core processor, Android 11, One UI 3.1.1 - Supports IPX8 rating (water resistance with a depth of up to 1.5m of freshwater for up to thirty minutes), which is a first for a foldable smartphone - Strengthened durability with the application of Armor Aluminum and tempered glass of Corning Gorilla Glass Victus - Equipped with 7.6" Infinity Flex Display and applied Under Display Camera - Display screen approximately 29% brighter with the new Eco² technology - Main/cover display all support 120Hz screen refresh rate - Applied S-pen for the first time for foldables - Supports both top and bottom half of the screen at any angle with Flex mode panel feature even for apps that are not optimized - Supports Multi Active Window, which splits the screen and allows using up to three apps at once

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Research project	Details
	<ul style="list-style-type: none"> □ Galaxy Z Flip 3 5G (August 2021) <ul style="list-style-type: none"> - Screen: Main display 6.7", cover display 1.9" - Size (W x H x D): (folded) 86.4mm x 72.2mm x 15.9~17.1mm (unfolded) 166mm x 72.2mm x 6.9mm - Platform (H/W, S/W): 5nm 64-bit octa-core processor, Android 11, One UI 3.1.1 - Supports IPX8 rating (water resistance with a depth of up to 1.5m of freshwater for up to thirty minutes), which is a first for a foldable smartphone - Strengthened durability with the application of Armor Aluminum and tempered glass of Corning Gorilla Glass Victus - Enhanced usability of cover display: allows to scroll through up to 8 lines of notification/message and supports weather, daily step count, and Samsung Pay - Enhanced Flex mode: supports Auto Framing, which automatically adjusts the frame according to the number of people within the frame, and Dual Preview - Main display supports 120Hz screen refresh rate
Galaxy S ~February 2022	<ul style="list-style-type: none"> □ Galaxy S10e · S10 · S10+ · S10 5G (5.8/6.1/6.4/6.7") (March 2019, 5G: April 2019) <ul style="list-style-type: none"> - Design: Full Front Punch Hole Infinity Display - Platform (H/W, S/W): Exynos9820, SDM855, Android 9 - World's first model using commercialized 5G technology - Combination of triple cameras delivers zoom, tele, ultra wide function: wide (12M)+tele (12M)+ultra wide (16M) - Supports HDR10+ video shooting on mobile for the first time in the world - Dynamic AMOLED display delivers near-original colors, supports HDR - On-screen fingerprint recognition sensor using ultrasound
	<ul style="list-style-type: none"> □ Galaxy S20 · S20+ · S20 Ultra 5G (March 2020) <ul style="list-style-type: none"> - Design: Best Fit in hand compact, yet large screen design - Screen: S20 6.2", S20+ 6.7", S20 U 6.9" - Size (W x H x D): S20 69.1mm x 151.7mm x 7.9mm; S20+ 73.7 x 161.9 x 7.8mm; S20 U 76.0 x 166.9 x 8.8mm - Platform (H/W, S/W): Exynos990 · SDM865, Android 10.0, One UI 2.1 - Smartphone that will change the future of mobile and pictures: significantly higher resolution and 8K video recording allows taking pictures and videos in unprecedented quality and easy and swift sharing with 5G - Pictures and videos with significantly higher resolution: S20 · S20+ 64MP, S20 U 108MP - 100x zoom, the highest space zoom yet in smartphones: S20 U 108MP - Take higher quality, clearer and brighter pictures and videos even at night with three times bigger sensor (using AI technology) - Take videos in 8K, the highest quality yet in smartphones - Super steady feature reduces blur from shaking but captures dynamic movements - Single take allows the best pictures and videos with a single shot
	<ul style="list-style-type: none"> □ Galaxy S20 FE (October 2020) <ul style="list-style-type: none"> - Makes S series experience available to more customers - Screen: 6.5" FHD+ sAMOLED Infinity-O (2,400 x 1,080) - Size (W x H x D): 74.5mm x 159.8mm x 8.4mm - Platform (H/W, S/W): Exynos990, SDM865, Android 10.0, One UI 2.5 - New entry-level flagship product equipped with premium features enhances market influence and provides experiences for various functions optimal to customers - Provides major S20 features: 120Hz display, same specs for camera and battery, same AP with flagship models, One UI 2.5 UX
	<ul style="list-style-type: none"> □ Galaxy S21 5G · S21+ 5G · S21 Ultra 5G (January 2021) <ul style="list-style-type: none"> - Design: Iconic and premium full metal camera housing, bezel-less design - Screen: S21 5G 6.2", S21+ 5G 6.7", S21 Ultra 5G 6.8" - Size (W x H x D): S21 5G 71.2mm x 151.7mm x 7.9mm, S21+ 5G 75.6mm x 161.5mm x 7.8 mm, S21 Ultra 5G 75.6mm x 165.1mm x 8.9 mm - Platform (H/W, S/W): Exynos2100 SDM888, Android 11.0, One UI 3.1 - Supports ultra-high speed 5G, Wi-Fi 6E, high-resolution camera <ul style="list-style-type: none"> · Camera: S21 Ultra 108MP, S21 · S21+ 64MP, Multi Camera Recording function · Dynamic AMOLED 2X Infinity-O display with maximum adaptive frequency of 120Hz · Easy registration and finding objects synced with SmartTag · Supports Digital Car Key service (S21+ 5G · S21 Ultra 5G only) · Supports S Pen (S21 Ultra 5G only)

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Research project	Details
	<ul style="list-style-type: none"> □ Galaxy S22 · S22+ · S22 Ultra (February 2022) <ul style="list-style-type: none"> - Design: Enhanced Galaxy Design attractiveness with geometric bold design and integrity on quality - Screen: S22 6.1", S22+ 6.6", S22 Ultra 6.8" - Size (W x H x D): S22 70.6mm x 146.0mm x 7.6 mm, S22+ 75.8mm x 157.4mm x 7.6 mm, S22 Ultra 77.9mm x 163.3mm x 8.9 mm - Platform (H/W, S/W): SDM8450 Exynos2200, Android 12.0, One UI 4.1 - Strengthened camera video filming and low-light function performance <ul style="list-style-type: none"> · Video: Improved HDR and OIS+AI Stabilizer performance to support rich colors and minimize shaking/jittering · Enhanced low-light performance: Applies Big Pixel sensor and On-device AI algorithm - Integrated Ultra/Note by equipping with S Pen * Optimized latency : 5.6ms (S21 Ultra) → 2.8ms (S22 Ultra) - Improved outdoor visibility of display * Peak brightness: 1,500nit (S21 Ultra) → 1,800nit (S22 Ultra) - Battery that can be used all-day and 45W ultra-fast charging speed (S22 Ultra/S22+) - Enhanced durability: Adopts Amor AL and Victus Glass with a 10% improvement in durability - Improved completion of Galaxy foundation experience <ul style="list-style-type: none"> · One UI 4.1: sophisticated, sensible interaction experience and personal experience of users · Galaxy Eco: improved end-to-end completion and enhanced convenient experience
Galaxy Note ~August 2020	<ul style="list-style-type: none"> □ Galaxy Note10 · 10+ (6.3/6.8") (August 2019) <ul style="list-style-type: none"> - Design: Full Front Punch Hole Infinity Display - Platform (H/W, S/W): Exynos9825, SDM855, Android 9.0 - Upgraded S Pen <ul style="list-style-type: none"> · Enhanced usability with higher battery capacity and improved BT latency · Camera controls (can take pictures, change mode, change zoom, etc.), change volume, run apps, operate stopwatch - Note 10+: Quad camera supports high-resolution and maximum viewing angle shooting under wide range of illuminance <ul style="list-style-type: none"> · Wide (12M) + tele (12M) + Ultra Wide (16M) + VGA ※ Note10 has three rear cameras
	<ul style="list-style-type: none"> □ Galaxy Note20 · 20 Ultra (6.7 · 6.9") (August 2020) <ul style="list-style-type: none"> - Size (W x H x D): Note20 75.2mm x 161.6mm x 8.3 mm, Note20 Ultra 77.2mm x 164.8mm x 8.1 mm - Platform (H/W, S/W): Exynos 990 · SDM 865 Plus, Android 10, One UI 2.5 - Supports high-speed 5G and Wi-Fi 6 - First in the Galaxy lineup to support Ultra Wide Band (Note 20 Ultra) - 108MP camera (Note 20 Ultra), 64MP camera (Note 20) - Maximum 120Hz scan rate display (Note 20 Ultra) - First to support wireless Samsung DeX - Supports S pen and Samsung Note; easy-to-use and perfectly resembling pen-writing experience; supports MS Xbox Game
Galaxy Tab ~February 2022	<ul style="list-style-type: none"> □ Galaxy Tab S7 · S7+ (August 2020) <ul style="list-style-type: none"> - Design: Premium Tablet (display, pen, performance) - Screen: 12.4" WQXGA AMOLED (16:10, 2800x1752/120Hz), 11" WQXGA LTPS TFT (16:10, 2,560x1,600/120Hz) - Size (W x H x D): 285.0mm x 185.0mm x 5.7mm (12.4"), 253.8 x 165.3 x 6.3mm (11") - Platform (H/W, S/W): SDM865+, Android 10, One UI 2.5 - Secured premium competitiveness by developing a thin large-display metal design - The first tablet that supports 5G (mmWave) for global carriers and the four major carriers in the US - Enhanced usability of Samsung Notes with 120Hz display and optimal pen latency (9ms) - N-generation AP maximizes performance (seamless multi-tasking & gaming experience)
	<ul style="list-style-type: none"> □ Galaxy Tab S7 FE (June 2021) <ul style="list-style-type: none"> - Screen: 12.4" WQXGA (2560x1600) - Size (W x H x D) & weight: 284.8mm x 185.0mm x 6.3mm, 608g (based on the LTE model) - Immersive display with 12.4" large-screen display and slim bezel - Long play time (10,090mAh, up to 13 hours of video play) - Rich sound with the application of Dolby Atmos - Enhanced usability of Samsung Note <ul style="list-style-type: none"> · Simple conversion of handwriting to text · Direct input with S Pen into the input box - Enhanced function of PENUP Drawing <ul style="list-style-type: none"> · Applies layer structure and provides coloring and live drawing - Lightweight keyboard cover (330g) - Delivery of clear voice with 50% reduction of background noise through 3 Mic - Stronger device connectivity <ul style="list-style-type: none"> · Second screen: using tablet as a supplementary monitor of PC · Hands off: sending and continuing what you were doing on your phone to your tablet (Internet, Samsung Notes) · Copy & paste: copy & paste of texts and images between Phone-Tablet · Auto switching: auto-buds switching between Phone-Tablet

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Research project	Details
	<ul style="list-style-type: none"> □ Galaxy Tab A8 (December 2021) <ul style="list-style-type: none"> - Screen: 10.5" WUXGA (1920 x 1200) - Size (W x H x D) & weight: 246.8mm x 161.9mm x 6.9mm, 508 g - Platform (H/W, S/W): UniSOC T618(12nm) processor, Android 11, One UI 3 - Memory : 3GB + 32GB / 4GB + 64GB / 4GB + 128GB, microSD up to 1TB Provides new options of RAM 4GB and ROM 128GB compared to previous model - Established and applied the Company's Tablet Design ID (Samsung Logo, shape and location of camera, symmetrical sides and front & back), same colors as the Tab S8 Flagship Family (Gray, Silver, Pink Gold) - Applies the Company's standard tablet display ratio of 16:10, provides immersive multimedia experience with 10.5" large-screen display and slim bezel - Supports Dolby Atmos and features Quad Speaker, free load of apps that specialize in contents such as Samsung TV Plus (offers free Live Streaming and VOD) - Supports 2 Split Windows and Pop-up view with Multi-Active Window, enhanced multi-tasking experience with the support of Drag & Split function—applied in Fold3—for the first time for tablets - Improved usability for online classes with the support of Screen Recorder for the first time among Tab A series - Wider support of One UI 3.1.1 Galaxy Experience (Copy&Paste, Auto Sync, Auto Switch) □ Galaxy Tab S8 · S8+ · S8 Ultra (February 2022) <ul style="list-style-type: none"> - Screen: Tab S8 11" WQXGA+ (2560 x 1600) Tab S8+ 12.4" WQXGA+ (2800 x 1752) Tab S8 Ultra 14.6" WQXGA+ (2960 x 1848) - Size (W x H x D) & weight: Tab S8 253.8mm x 165.3mm x 6.3mm, 503g Tab S8+ 285.0mm x 185.0mm x 5.7mm, 567g Tab S8 Ultra 326.4mm x 208.6mm x 5.5mm, 726g - Platform (H/W, S/W): SM8450 processor, Android 12, One UI 4.1 - Memory : 8GB+128GB / 8GB+256GB / 12GB+256GB / 16G+512G, microSD up to 1TB - Enhanced video call experienced [Tab S8 Ultra] Provides dual front cameras (12M 80-degrees, 12M 120-degrees) and Auto Framing function [Tab S8+ / Tab S8] Provides 12M 120-degree front camera and Auto Framing function - Enhanced AP Sustain performance by improving heat sink design (gpu 70%, cpu 25%↑ compared to previous model), enhanced gaming performance - Improved S pen latency (5.6ms → 2.65ms) and optimized prediction algorithm Provides seamless and precise writing experience when writing & drawing, just like a real pen, enhancements to lessen the parallax effect - Enhanced the audio experience of video calls by upgrading 3 MIC noise cancellation performance (3 types of noise cancellation mode) - Equipped with WiFi 6E function—a first for a tablet—and improved big data transmission time between devices - Reduced charging time of Phone Power Share by half compared to the previous model by adopting D2D 15W charging function
Galaxy A ~April 2022	<ul style="list-style-type: none"> □ Galaxy A52 LTE · 5G (March 2021) <ul style="list-style-type: none"> - Offers enhanced user experience and increased competitiveness via strengthened core features - Screen: 6.5" FHD+ sAMOLED HID (2,400 x 1,080) - Size (W x H x D): 75.1mm x 159.9mm x 8.4mm - Platform (H/W, S/W): SDM750G (5G)/SDM720G (LTE), Android 11, One UI 3.1 - Supreme smooth UX/Dynamic refresh rate and Brightest (6.5" sAMOLED with 120Hz (5G)/90Hz (LTE), 800nit) - High-resolution 64MP Quad Camera (64M OIS/12M UW/5M Depth/5M Macro) - Powerful AP with High Capacity Battery (4,500mAh) □ Galaxy A72 (March 2021) <ul style="list-style-type: none"> - Offers enhanced user experience and increase competitiveness via strengthened core features - Screen: 6.7" FHD+ sAMOLED HID (2,400 x 1,080) - Size (W x H x D): 77.4mm x 165.0mm x 8.4mm - Platform (H/W, S/W): SDM720G, Android 11, One UI 3.1 - High refresh Rate Brightest Display (6.7" FHD+ sAMOLED with 90Hz, 800nit) - Advanced High-res/Multi Camera, More detail with blur-less (64M OIS/12M UW/8M Tele/5M Macro) - Long-lasting Battery with bigger capacity (5,000mAh)

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Research project	Details
	<ul style="list-style-type: none"> □ Galaxy A32 LTE · 5G (LTE: March 2021; 5G: January 2021) <ul style="list-style-type: none"> - Offer enhanced user experience and increase competitiveness by strengthening core features - Screen: LTE 6.4" FHD+ sAMOLED (2,400 x 1,080)/5G 6.5" HD+ TFT (1,600 x 720) - Size (W x H x D): LTE 73.6mm x 158.9mm x 8.4mm/5G 76.1mm x 164.2mm x 9.1mm - Platform (H/W, S/W): LTE MT6769T/5G MT6853V, Android 11, One UI 3.1 - LTE <ul style="list-style-type: none"> · Brightest Display: 800nit Super AMOLED · High Resolution Camera: 64MP Quad (64M W/8M UW/5M Macro/5M Depth) · High Capacity Battery: 5,000mAh - 5G <ul style="list-style-type: none"> · Rich Camera Experience of 48MP Quad, Penta Mode Camera (48M W/8M UW/5M Macro/2M Depth) · High Capacity Battery: 5000mAh
	<ul style="list-style-type: none"> □ Galaxy Quantum2 A82 (April 2021) <ul style="list-style-type: none"> - Screen: 6.7" QHD+ (3,200 x 1,440) - Size (W x H x D) & weight: 161.9mm x 73.8mm x 8.1mm, 176g - Platform (H/W, S/W): SDM855+, Android 11, One UI 3.1 - Applied QRNG security chip set - Supports expansive large-screen and smooth screen transition of 120Hz - Powerful camera that enables photographing on a professional level (ultra-wide 12MP, main 64MP, close-up 5MP)
	<ul style="list-style-type: none"> □ Galaxy A03-Core (December 2021) <ul style="list-style-type: none"> - Screen: 6.5" HD+(1480 x 720) TFT 60Hz - Size (W x H x D) & weight: 164.2mm x 75.9mm x 9.1mm, 211g - Platform (H/W, S/W): 28-nano octa-core processor, Android 11(Android GO) <ul style="list-style-type: none"> · Enhanced CPU performance compared to previous model A01-Core (28-nano quad-core processor) - Highly price efficient product that applies large-screen/high-capacity battery to address the entry market <ul style="list-style-type: none"> · Enhanced display (5.3"→6.5" HD+) and battery (3,000→5,000mAh) compared to previous model A01-Core
	<ul style="list-style-type: none"> □ Galaxy A23 LTE (March 2022) <ul style="list-style-type: none"> - Screen: 6.6" FHD+ (2400 x 1080) 90Hz - Size (W x H x D) & weight: 76.9mm x 165.4mm x 8.4mm, 195g - Platform (H/W, S/W): 6-nano octa-core processor, Android 12, One UI 4.1 - 6.6" FHD+ display, supports 90Hz screen refresh rate (previous model: A22 6.4" HD+ 90Hz) - Vivid pictures in the dark without camera shake with the adoption of high-definition 50MP OIS camera - Adoption of high-capacity 5,000mAh battery and supports 25W ultra-fast charging
	<ul style="list-style-type: none"> □ Galaxy A13 5G (January 2022) <ul style="list-style-type: none"> - Screen: 6.5" HD+ (1600 x 720) 90Hz - Size (W x H x D) & weight: 76.5mm x 164.5mm x 8.8mm, 195g - 6.5" HD+ display, supports 90Hz screen refresh rate (previous model: A12 6.5" HD+ 60Hz) - Super-low priced 5G model for LTE user migration and expansion of the 5G market - Strengthened AP (5G) AP (MT6765 → MT6833v) to address entry market - Higher definition of pictures compared to the previous model (A12 16MP) with the application of 50MP camera
	<ul style="list-style-type: none"> □ Galaxy A13 LTE (March 2022) <ul style="list-style-type: none"> - Screen: 6.6" FHD+ (2400 x 1080) 60Hz - Size (W x H x D) & weight: 76.4mm x 165.1mm x 8.8mm, 195g - Platform (H/W, S/W): 8-nano octa-core processor, Android 12, One UI Core 4.1 - Provides better large screen experience compared to the previous model (A12 6.5" HD+) by adopting 6.6" FHD+ display - Higher definition of pictures compared to the previous model (A12 48MP) by adopting 50MP camera - Able to use up to two days on a single charge by applying 5,000mAh high-capacity battery and AI Power mode
	<ul style="list-style-type: none"> □ Galaxy A73 5G (2022.04.) <ul style="list-style-type: none"> - Screen: 6.7" FHD+ Super AMOLED+ (1080 x 2400) 120Hz - Size (W x H x D) & weight: 76.1mm x 163.7mm x 7.6mm, 181g - Platform (H/W, S/W): SDM778G, Android 12, One UI 4.1 - Vivid pictures in the dark without camera shake with the support of 108MP high-resolution picture quality and OIS - Soft and clear screen experience with the adoption of high refresh rate of 120Hz and sAMOLED display - Adopts 5,000mAh high-capacity battery (2 day battery life) and supports 25W ultra-fast charging speed - Offers strong durability with the adoption of Gorilla Glass 5 and IP67 rating - Provides the latest flagship experience with the support of One UI 4.1

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Research project	Details
	<ul style="list-style-type: none"> □ Galaxy A53 5G (2022.04.) <ul style="list-style-type: none"> - Screen: 6.5" FHD+ Super AMOLED (1080 x 2400) 120Hz - Size (W x H x D) & weight: 74.8mm x 159.6mm x 8.1mm, 189g - Platform (H/W, S/W): Exynos1280, Android 12, One UI 4.1 - 8.1t slim design and 5,000 mAh high-capacity battery (0.3t↓, 500 mAh↑ compared to previous model) - Soft and clear screen experience provided by the combination of high refresh rate of 120Hz and fast response speed of sAMOLED - Enhanced glass durability with the adoption of Gorilla Glass 5 - Provides the latest flagship experience with the support of One UI 4.1 □ Galaxy A33 5G (2022.04.) <ul style="list-style-type: none"> - Screen: 6.4" FHD+ Super AMOLED (1080 x 2400) 90Hz - Size (W x H x D) & weight: 74.0mm x 159.7mm x 8.1mm, 186g - Platform (H/W, S/W): Exynos1280, Android 12, One UI 4.1 - Delivers enhanced screen experience with the support of 6.4" FHD+ display and 90Hz (previous model: A32-5G HD+ TFT 60Hz) - High-definition pictures without camera shake with the adoption of 48MP OIS camera - Enhanced durability with the adoption of Gorilla Glass 5 and support of IP67 rating for dust and water resistance - Adopts 5,000 mAh high-capacity battery and 25W supports ultra-fast charging speed
<p>Galaxy Book ~April 2022</p>	<ul style="list-style-type: none"> □ Galaxy Book Flex 2 (December 2020) <ul style="list-style-type: none"> - Design: 2-in-1 PC with S Pen, QLED display - Screen: 15.6" QLED FHD (16:9, 1920 x 1080), 13.3" QLED FHD (16:9, 1920 x 1080) - Size (W x H x D): (15.6") 355.0mm x 227.2mm x 14.9mm (13.3") 302.6mm x 202.9mm x 12.9mm - Platform, OS: Intel 11th generation CPU, Windows 10 - QLED: Color Volume 100%, Super Bright Outdoor Mode Max 600nit - S Pen: Samsung Notes, Clip Studio, Gesture - SSD: Powerful performance & Latest Gen4 SSD □ Galaxy Book Flex2 5G (December 2020) <ul style="list-style-type: none"> - Screen: 13.3" QLED FHD Up to 600nit Brightness, Color Volume 100% - Size (W x H x D): 304.9mm x 202.3mm x 13.9–14.9mm - Platform, OS: 11th-generation Intel CPU, Intel Iris Xe Graphics, Windows 10 - Supports ultra-fast 5G (Sub-6) <ul style="list-style-type: none"> Connects to state-of-the art wireless LAN 802.11 ax (Wi-Fi6) - Double Camera <ul style="list-style-type: none"> • World-facing camera (13M AF) and front-facing camera (1M) Camera - Long battery life (20 hours battery life, based on MM14) - Comes with S-Pen, allowing quick expression of inspiration (Digitizer) - Stronger connection to Tablets, Phones <ul style="list-style-type: none"> • Link to Windows: Smartphone apps opens seamlessly on PCs • Samsung Notes: Syncs notes between Phone-Tablet-PC □ Galaxy Book Go (April 2021) <ul style="list-style-type: none"> - Screen: 14" FHD (1920 x 1080) - Size (W x H x D) & weight: 323.9mm x 224.8mm x 14.9mm, 1,380g - Platform: 2nd-generation Snapdragon 7C, Windows 10 - Supports LTE that enables Internet anywhere anytime - Slim design optimized for portability (14.9mm thick) - Rich sound with the application of Dolby Atmos - Long play time (up to 18 hours of battery life) - Stronger connectivity between Tablet-Phone <ul style="list-style-type: none"> • Quick Share: easy share of files between phone and tablet • Second Screen: using tablet as a supplementary monitor of PC • Galaxy Book Smart Switch: simple sending of data from the previous notebook • SmartThings: syncing smart devices

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Research project	Details
	<ul style="list-style-type: none"> □ Galaxy Book2 Pro 360 (April 2022) <ul style="list-style-type: none"> - Screen: 15.6" FHD Super AMOLED (16:9), up to 500nit (HDR), Color Volume 120% 13.3" FHD Super AMOLED (16:9), up to 500nit (HDR), Color Volume 120% - Size (W x H x D) & weight: 15.6" 354.85 x 227.97 x 11.9mm, 1.41kg 13.3" 302.5 x 202 x 11.5 mm, 1.04kg - Platform, OS: 12th Gen Intel CPU (EVO Verified by Intel), Windows 11 - sAMOLED: Default 370nit/HDR 500nit, Color volume 120% - S Pen & Touchscreen support - 1080p FHD Camera (87-degree wide angle, supports Auto Framing, which recognizes users and adjusts them to the center of the screen) - SSD: Gen4 SSD, Expendable SSD (M.2 2230) - Supports WiFi 6E - Battery: 15.6" 68Wh (21hrs), 13.3" 63Wh (21hrs) - Galaxy Apps: Quick Share, 2nd Screen, Multi-Control, etc. <ul style="list-style-type: none"> • QR Sign-in: logs into Galaxy Book with a QR scan linked to the account on your phone - Security: supports Secured-Core PC with enhanced security for each stage for hardware, firmware, and software □ Galaxy Book2 Pro (April 2022) <ul style="list-style-type: none"> - Screen: 15.6" FHD AMOLED (16:9), up to 500nit (HDR), Color Volume 120% 13.3" FHD AMOLED (16:9), up to 500nit (HDR), Color Volume 120% - Size (W x H x D) & weight: 15.6" 355.4 x 225.8 x 11.7mm, 1.11kg 13.3" 304.4 x 199.8 x 11.2mm, 0.87kg - Platform, OS: 12th Gen Intel CPU (EVO Verified by Intel), Windows 11 - AMOLED: Default 400nit/HDR 500nit, Color volume 120% - 1080p FHD Camera (87-degree wide angle, supports Auto Framing, which recognizes users and adjusts them to the center of the screen) - SSD: Gen4 SSD, Expendable SSD (15.6" Only, M.2 2280) - Supports WiFi 6E, 5G Sub6 (15.6"Only) - Battery: 15.6" 68Wh (21hrs), 13.3" 63Wh (21hrs) - Galaxy Apps: Quick Share, 2nd Screen, Multi-Control, etc. <ul style="list-style-type: none"> • QR Sign-in: logs into Galaxy Book with a QR scan linked to the account on your phone - Security: supports Secured-Core PC with enhanced security for each stage for hardware, firmware, and software
Galaxy Watch August 2021	<ul style="list-style-type: none"> □ Galaxy Watch3 (August 2020) <ul style="list-style-type: none"> - Design: Premium smart watch resembling the design of a traditional watch - Display: 1.4" (45mm), 1.2" (41mm) OLED (360 x 360) - Size (W x H x D): 45.0 x 46.2 x 11.1 (45mm) 41.0 x 42.5 x 11.3 (41mm) - Platform (H/W, S/W): Exynos9110, Tizen 5.5 - Expanding portfolio to titanium models (high-end segment) - Identifying and have included differentiated health-related services <ul style="list-style-type: none"> • Blood pressure, ECG, fall detection features commercialized globally □ Galaxy Watch4 & Galaxy Watch4 Classic (August 2021) <ul style="list-style-type: none"> - Display: Watch4: (44mm) 1.4" (450 x 450), (40mm) 1.2" (396 x 396); Watch4 Classic: (46mm) 1.4" (450 x 450), (42mm) 1.2" (396 x 396) - Size (W x H x D): Watch4: (44mm) 44.4 x 43.3 x 9.8mm, (40mm) 40.4 x 39.3 x 9.8mm; Watch4 Classic: (46mm) 45.5 x 45.5 x 11.0mm, (42mm) 41.5 x 41.5 x 11.2mm - Platform (H/W, S/W): AP Exynos W920 (5nm 64-bit Dual-Core), Wear OS Powered By Samsung, One UI Watch of Wear OS 3.0 - Memory: improved performance and increased storage with 1.5GB RAM + 16GB ROM - Higher resolution 330 ppi display - Pursuing differentiation by featuring body composition measurement for the first time and enhancing usability - Advanced sleep tracking, including blood oxygen level measurement and snore detection - Wider app ecosystem and enhanced sync experience based on Wear OS <ul style="list-style-type: none"> • Provides key services of Google, including Play Store/Google Map/YT Music • Supports specialized fitness apps and other various service apps
Galaxy buds January 2020–August 2021	<ul style="list-style-type: none"> □ Galaxy Buds+ (January 2020) <ul style="list-style-type: none"> - Design: Canal-type TWS (True Wireless Stereo) - Platform (HW, SW): MCU (BCM43015), OS (RTOS), BT 5.0 - Battery: (Earbuds) 85mAh x 2, (cradle) 270mAh - Powerful mid to low keys and highest sound quality with application of 2-way speaker (woofer & tweeter) - 2 outer beamforming mic and 1 inner mic optimizes phone call sound - Improved errors in proximity sensor by adding grip sensor - Longest play time compared to products in the same class, with upgraded battery: 22 hours for streaming (earbuds 11H & cradle 11H)

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Research project	Details
	<ul style="list-style-type: none"> □ Galaxy Buds Live (August 2020) <ul style="list-style-type: none"> - Design: Open-type TWS with innovative design and high-quality sound - Size (W x H x D): (Earbuds)16.5mm x 27.3mm x 14.9mm, (Cradle) 50.0mm x 50.2mm x 27.8mm - Platform (H/W, S/W): BCM43015, RTOS - Ergonomic design that fits ears perfectly, provides all-day comfort sitting softly inside the ear. - Open type Active Noise Cancellation reduces background noises but let you hear what you want to hear. - Large-size 12mm speakers and Bass Duct deliver rich, spacious live sound - Three built-in mics and a Voice Pickup Unit enables the best call quality □ Galaxy Buds Pro (January 2021) <ul style="list-style-type: none"> - Design: Premium TWS, in-ear type with Intelligent ANC feature - Size (W x H x D): (earbuds) 20.5 x 19.5 x 20.8mm, (cradle) 50 x 50.2 x 27.8mm - Platform (H/W, S/W): BCM43015, RTOS - 2Way (woofer + tweeter) 11mm speaker offers enhanced sound quality <ul style="list-style-type: none"> • High-quality phone call sound with 3 mics and accelerometer (voice pickup sensor) • In-ear type, Intelligent ANC and voice detect function instantly switches from ANC to Ambient sound when it hears your voice • 3D Audio provides a truly immersive experience resembling that of a movie theater • IPx7-level water resistant □ Galaxy Buds 2 (August 2021) <ul style="list-style-type: none"> - Enhanced competitiveness of the Buds mass-market model by enhancing basic functions and adding ANC - Size (W x H x D): (earbuds) 17.0 x 20.9 x 21.1 mm, (cradle) 50.0 x 50.2 x 27.8 mm - BES2500 ZP-83 (BT + Codec + Flash) new low-power management solution* <ul style="list-style-type: none"> • Provides ANC • Play time of up to 29 hours (based on streaming, with ANC off) - Optimized RF frequency performance by applying integrated Touch + BT Antenna FPCB - Enhanced audio performance of canal-type wireless earbuds <ul style="list-style-type: none"> • Applied algorithm that maximizes noise cancelling performance by utilizing DNN (DNN + 3-Mic +VPU) <ul style="list-style-type: none"> * DNN: Deep Neural Network , VPU: Voice Pickup Unit • Improved latency of switching to Ambient Sound Mode (3.2ms→0.65ms) • Better low frequency sounds by applying new materials to the woofer cone • Better noise cancelling of the microphone with the adoption of flawless microphone • Enhanced ANC and sound quality by changing the density of the ventilation duct and improving the pipe conduit of feedback mic • Reduced wind noise by maximizing and optimizing the location of the chamber space of the microphone
Network	
RAN S/W Package April 2019–June 2021	<ul style="list-style-type: none"> □ SVR18.3 5G S/W package (April 2019) <ul style="list-style-type: none"> - S/W Package to commercialize domestic 5G NR for the first time in the world <ul style="list-style-type: none"> • Commercialized 5G NSA by using LTE network links in the Seoul and the capital area • Supports 5G base station (3.5GHz, 28GHz, 39GHz 5G Massive MIMO) □ SVR21B NR vDU SW PKG (June 2021) <ul style="list-style-type: none"> - TDD-based C-Band vDU <ul style="list-style-type: none"> • Flexible base station upgrade without H/W change and resource allocation * vDU (virtual DU): realizing the function of 5G base station by developing commercial server-based S/W
Core S/W Package March 2020	<ul style="list-style-type: none"> □ SVR19B 5G core S/W package (March 2020) <ul style="list-style-type: none"> - Developed containerized-based 5G Core Network Function <ul style="list-style-type: none"> • Efficient and quick service distribution and maintenance cost reduction possible by flexibly containerizing host OS resource

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Research project	Details
Base stations September 2019–February 2022	<ul style="list-style-type: none"> □ Developed NR DU (September 2019) <ul style="list-style-type: none"> - New dual CPU based main card and first 5G SoC modem using channel card - Single HW can accommodate a combination of LTE, NR above and NR below products, offering different channels at the same time - Supports high capacity, low power consumption (including power saving) and virtualization/non virtualization S/W structure □ Developed 26GHz NR RFIC Chip (February 2020) <ul style="list-style-type: none"> - 2nd generation RFIC Chip, following SEC's 1st generation products (28GHz/39GHz) <ul style="list-style-type: none"> · 2nd generation has improved evm function, power efficiency, and mass production □ Developed FSU10 (May 2020) <ul style="list-style-type: none"> - FSU (fronthaul switch unit) to support vRAN business - Makes spectrum sharing between LTE and NR (below 6GHz) possible <ul style="list-style-type: none"> · One RU fits both LTE DU and NR vRAN via spectrum sharing □ Developed NR Indoor AU (August 2020) <ul style="list-style-type: none"> - Our first 5G In-building Solution AU product - Small form-factor enables low-power consumption, indoor installation on walls, pillars, and ceilings □ Developed NR C-Band MMU (3.7G 64T64R 200W MMU) (December 2020) <ul style="list-style-type: none"> - First ever TDD-based MMU (Massive MIMO Unit) that operates in C-BAND in North America - Supports broadband IBW 280M, thus any carrier with C-Band across the country may use the product □ Developed MMU Beam Forming SoC (February 2021) <ul style="list-style-type: none"> - SoC performs functions that Beam Forming FPGA, within MMU board, performs - 30% more power efficient than previous model (Maximum power consumption: less than 40W) □ Developed 5 types of ORAN* RU for the US (September 2021) <ul style="list-style-type: none"> - Defined DU-RU standard interface, which allows to connect any vendor DU to any vendor RU - AWS/PCS, two types of 700/850 4T4R 40W, two types of 320W, C-Band 8T8R 320W □ AWS/PCS Dualband 16T16R FDD MMU for North America (October 2021) <ul style="list-style-type: none"> - The Company's first commercialized 16T16R FDD MMU product that applies our in-house-developed chip □ Domestic 3.5GHz NR 32T32R TDD MMU (February 2022) <ul style="list-style-type: none"> - Applied Mechanical PSA (phase shift antenna) for the first time <ul style="list-style-type: none"> * Automatically controls the antenna angle (tilt 0-12°) inside the MMU with a motor

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Research project	Details
Memory	
DRAM for mobile July 2019–March 2022	<ul style="list-style-type: none"> □ Mass production of 2nd generation 10-nano class (1y) 12Gb LPDDR5 DRAM for mobile, with highest speed and capacity in the world <ul style="list-style-type: none"> - Next-generation mobile solution with better speed, capacity, and power efficiency - Contributed to introducing 5G smartphones with 1.3 times the speed (5,500Mbps), and 30% lower power consumption - 12Gb LPDDR5-based line up (6GB, 12GB) provided for the first time □ World's first mass production of 16GB LPDDR5 mobile DRAM: highest speed and capacity in the world <ul style="list-style-type: none"> - Performance improved by 30%, capacity by 2 times, and 20% less power consumption vs 8GB LPDDR4X - Gaming performance (picture quality, haptic feedback) same or better than PCs possible with smartphones □ Development of LPDDR5X DRAM <ul style="list-style-type: none"> - Improved speed by over 30% and power efficiency by approximately 20% compared to previous model - Based on 14-nano; expansion of application areas that use high performance, low power consumption memory from mobile to server and automotive, with expansion to up to 64GB per memory package - Verified the industry's highest operating speed (7.5Gbps) by mounting the 8GB LPDDR5X DRAM package on Qualcomm's Snapdragon mobile platform
DRAM for server August 2019–March 2021	<ul style="list-style-type: none"> □ Mass Production of 1st generation 10-nano class (1x) 256GB 3DS DDR4 DRAM for servers, highest capacity in the world <ul style="list-style-type: none"> - World's first mass production of 256GB DRAM with ultra-high performance and capacity - 2 times the capacity and 30% increase in power efficiency compared to 128GB □ Development of 3rd generation 10-nano class (1z) 8Gb DDR4 DRAM—world's best <ul style="list-style-type: none"> - Secured ultra-fast, ultra-power-efficient solutions for mass production of DDR5 · LPDDR5 - Efficiency up by more than 20% compared to 2nd generation (1y-nano) DRAM - Expand portion of 1z-nano DRAM lineup in the next-generation products by mass production beginning in September in Pyeongtaek □ Development of high-capacity DDR5 memory applying HKMG process—an industry first <ul style="list-style-type: none"> - Realization of 512GB DDR5 module with the application of High-K Metal Gate and 8-stack TSV - Reduced power consumption by around 13% and more than double performance compared to the existing process - Planning to apply it in the next-generation computing, super computers, and high capacity data centers
HBM DRAM October 2019–August 2021	<ul style="list-style-type: none"> □ Development of 12-stack 3DS TSV PKG, with world's highest HBM DRAM capacity <ul style="list-style-type: none"> - Development of highest performance and capacity 12GB HBM DRAM for supercomputers—industry's first - 1.5 times the capacity and convenience of system design improved with 8GB package - Strengthened leadership in next-generation HPC DRAM by breakthrough in package technology - Plan to mass produce 24GB HBM, the industry's highest, to meet customer needs □ Rollout of ultra-fast DRAM for AI and next-generation super computer for the first time in the world (16GB HBM2E 'Flashbolt') <ul style="list-style-type: none"> - Stacked 8 10-nano (1y) 16Gb DRAM, enabling 16GB, the highest capacity - Able to send 82 Full HD movies (410GB) at 3.2Gb/sec - Continue to lead market expansion by supplying 2nd generation HBM2 and 3rd generation HBM2E at the same time □ Developed world's first AI HBM-PIM with an AI engine <ul style="list-style-type: none"> - More than two times the performance compared to previous HBM2, system energy reduced by approximately 70%. - Unveiled academic paper in Feb 2021 at conference held by ISSCC, which has the highest reputation in the semiconductor industry - Enables application without changing the system by using existing memory interface - Cooperate with data center and AI customers on standardization of PIM and establishing eco system. □ Expanded memory product lines that integrate an AI engine (performance evaluation of HBM-PIM and development of AXDIMM/LPDDR5-PIM) <ul style="list-style-type: none"> - Unveiled the case in which the HBM-PIM developed last February was incorporated in the system (integration with the Xilinx Alveo AI accelerator system boosts overall system performance by 2.5 times while reducing energy consumption by more than 60%) - AXDIMM, a DRAM module with an AI engine, offers twice the performance and a 40% decrease in energy usage - Unveiled LPDDR5-PIM that integrated mobile DRAM and PIM technology

DS Division

Research project	Details
eStorage February 2019–May 2022	<ul style="list-style-type: none"> □ Mass production of next-generation smartphone memory, eUFS 3.0—a world’s first <ul style="list-style-type: none"> - Embedded 5th generation (9x-layers) cell stacked 512Gb 3 bit V-NAND for the first time in the industry - Reading and writing 2 times faster compared to eUFS 2.0 - Securing early foothold and high growth in next-generation ultra-high-resolution mobile market □ Industry’s only mass production of 1TB eUFS 2.1, with a writing speed of 1200MB/s <ul style="list-style-type: none"> - 3 times the performance compared to 512GB eUFS 3.0 (continued writing speed of 410MB/s) - Smartphone memory storage (1200MB/s) is 2 times faster than PC (SSD 540MB/s) □ Development of highly advanced UFS 4.0 <ul style="list-style-type: none"> - Improved reading/writing speed by approximately twofold compared to UFS 3.1 product - Enhanced power efficiency by approximately 46% for processing the same amount of data, which allows longer hours of use - Improved a function that reads and saves customer’s important data by adopting the latest security technologies - Expected to expand into consumer devices, such as smartphones, automotives, and VR/AR
SSD for PC July 2019	<ul style="list-style-type: none"> □ Mass production of 6th-generation (1xx) 256Gb V-NAND-based PC SSD—fastest in the world <ul style="list-style-type: none"> - Exclusive mass production of higher than 100 layers cell single process stacked V-NAND - 1.2 times the speed and productivity higher by more than 20% - Lead the storage market with competitive edge in ultra-fast, ultra-power-efficient products
SSD for server August 2019–December 2021	<ul style="list-style-type: none"> □ Mass production of 5th generation (9x-layer) V-NAND-based 30.72TB NVMe SSD for servers— highest speed and capacity in the world <ul style="list-style-type: none"> - Secured next-generation SSD solution with improved speed, capacity, and efficiency - Introduced 8GB/s PCIe Gen4 SSD with 2.2 times the speed - Exclusively offers top 3 SW (Never Die SSD, FIP, ML) solution □ Mass production of high-performance OCP SSD specialized for data centers <ul style="list-style-type: none"> - Mass production of OCP SSD, the first in the industry for 6th-generation V-NAND - Satisfies performance, power efficiency, reliability, and security demanded by the data center industry - Contributes to cost reduction and carbon emission reduction with industry’s most power efficient feature □ Mass production of industry’s highest performing SAS 24Gbps SSD for server <ul style="list-style-type: none"> - Supports speed that is around two times faster than the previous generation SSD - Provides high capacity from 800GB to 30.72TB based on 6th generation V-NAND - Expected to reduce server operation cost and carbon emission via a 40% improvement in power efficiency □ Industry’s first mass production of next-generation ZNS SSD for company server <ul style="list-style-type: none"> - Applies ZNS technology, which categorizes and saves data by zone depending on characteristics - Lifespan and maximum utilization of SSD capacity increased compared to existing SSDs - Contributes to enhancing the efficiency of next-generation servers—in areas such as AI, big data, and IoT—as well as storage systems, while expanding the foundation for ZNS SSD through various open source projects □ Development of PCIe 5.0-based high-performance SSD PM1743 <ul style="list-style-type: none"> - Improved reading/writing speed by approximately twofold and power efficiency by approximately 30% compared to PCIe 4.0-based SSD - Stability of server operation guaranteed with the support of dual-port and application of latest security technologies

DS Division

Research project	Details
Brand SSD January 2020–April 2022	<ul style="list-style-type: none"> □ Launched 'T7 Touch', premium portable SSD—highest performance in the industry <ul style="list-style-type: none"> - 5th generation 512Gb V-NAND with world's highest performance and NVMe controller with ultra-fast embedded interface - Supports reading and writing speed of 1,050MB/s and 1,000MB/s, respectively, up to 9.5 times faster than external HDD (110MB/s) and about 2 times faster than the previous model (SEC's portable SSD T5) □ Global launch of high-capacity 4-bit SSD '870 QVO' <ul style="list-style-type: none"> - Introduced 4 SATA SSD models including 1/2/4TB and 8TB model, the highest in the industry - Provides optimal solution to customers with need for high-performance/high-capacity computing environment, with quick data-process speed close to the maximum speed of SATA interface - Boasts high speed/capacity, reasonable price, launched in 40 countries in several phases □ Global launch of PCIe-Gen4-applied SSD '980 PRO', boasting highest performance in the industry <ul style="list-style-type: none"> - Provides ultra-high resolution via consumer SSD with the highest-speed in the industry - Continue to lead market for professional PC and workstation used for editing of 8K, 4K videos and games requiring high-specs - 5-year warranty (longest in the industry) □ Global launch of SATA SSD 870 EVO for consumers <ul style="list-style-type: none"> - Latest V-NAND and controller included, intelligent turbolight technology - Highest durability in the industry, run time enhanced by more than 30% - Five models in 250GB to 4TB range, introduced in steps in Korea, US, Germany, and China □ Launched NVMe SSD 980, which boasts high performance and is economical. <ul style="list-style-type: none"> - 6th-generation V-NAND, maximum 6 times the speed compared to SATA SSD - DRAM-less design to save cost, applied optimization technology for controllers and firmware - Heat-control feature, applied to high-end products - Power efficiency enhanced by 56%, compared to 970 EVO, allowing "good consumption" for consumers □ Released portable SSD 'T7 Shield' for experts that offers both performance and durability <ul style="list-style-type: none"> - Built with dust, water, and drop resistance up to 3m - Transmits data stably without performance degradation, including when recording and editing high-resolution videos
EUV March 2020-October 2021	<ul style="list-style-type: none"> □ Supplied 1 million 1st generation 10-nano class (D1x) DRAM modules <ul style="list-style-type: none"> - Mass production of EUV DRAM—the only company in the industry with EUV DRAM mass production system - Secured 10-nano class advanced process and mass production, enabling next-generation DRAM in a timely manner. - EUV process applied to all 4th generation 10-nano class DRAM, and is now expanding to 5th generation and 6th generation products □ Mass production of 14-nano EUV DDR5 DRAM <ul style="list-style-type: none"> - Enhanced productivity by approximately 20% with multilayer EUV implementation and realization of industry's highest DRAM bit density - Enhanced speed by twofold compared to DDR4 and improved power consumption by approximately 20% compared to previous process
CXL May 2021-May 2022	<ul style="list-style-type: none"> □ Development of industry's first CXL-based DRAM memory <ul style="list-style-type: none"> - Next-generation memory solution to meet the needs of high capacity data centers; overcomes physical limitations of DRAM modules, revolutionary expansion of capacity bandwidth becomes possible - Supports interface converting, error management, etc. through CXL controller - Development of controller and software technology optimized for CXL DRAM memory by collaborating with data centers and server and chipset companies □ Development of industry's first open-source software solution for CXL memory <ul style="list-style-type: none"> - Enables expansion of system memory's performance/capacity by enabling the main memory and the CXL memory to work seamlessly □ Development of industry's first high-capacity 512GB CXL DRAM <ul style="list-style-type: none"> - Enhanced capacity of CXL DRAM by four times, which allows expansion of over tens of terabytes per server - Equipped with CXL-exclusive controller, reducing data latency by 1/5
Multi-chip June 2021	<ul style="list-style-type: none"> □ Mass production of industry's best performing uMCP5 (LPDDR5 + UFS3.1) multi-chip package <ul style="list-style-type: none"> - Speed upgrade by 1.5 times compared to the existing LPDDR4X, 2 times compared to UFS2.2 - Spearhead popularization of 5G by installing them into low- to mid-priced 5G smartphones
Brand Card September 2021-May 2022	<ul style="list-style-type: none"> □ Released a new micro SD card product with enhanced performance and stability <ul style="list-style-type: none"> - 'PRO Plus' provides 1.6 times faster read speed and 1.3 times faster write speed than the previous generation - 'EVO Plus' provides 1.3 times faster read speed than the previous generation - With improved performance and a design that offers better protection against external shocks, not only general consumers, but also creators who make high-quality contents such as 4K UHD videos, are looking forward to it □ Released memory card 'PRO Endurance' with enhanced performance and durability <ul style="list-style-type: none"> - Adopts high-quality server-level NAND durability that allows up to 16 years of continuous recording time - Optimized for high-resolution (4K, Full HD) video recording equipment, such as surveillance video and black box - Keeps stable recording performance even in tough conditions, applies 6-proof protection - Supports speed of Class 10, UHS Class U3, and video speed of Class V30; can continuously record Full HD · 4K high-resolution videos

DS Division

Research project	Details
Automotive December 2021	<ul style="list-style-type: none"> □ Mass production of memory total solutions for automotives <ul style="list-style-type: none"> - 256GB SSD and 2GB DDR4/GDDR6 for IVI; 2GB GDDR6 and 128GB UFS for AD - Supplies high performance SSDs and graphics DRAM delivering server-level performance and capacity; and secures high stability that is required in the automotive semiconductor market (operation is guaranteed in the -40°C-105°C range)
System LSI Image Sensor January 2019–June 2022	<ul style="list-style-type: none"> □ ISOCELL Slim sensor with ultra-small pixel size (3T2, 0.8um/20Mp) <ul style="list-style-type: none"> - Highest resolution (20Mp) among 1/3.4" sensors, offers high-resolution optimized for bezel-less displays - Tetracell technology for front camera, allowing high performance under low lighting, high magnification for back camera reduces module size, improving picture quality □ Ultra-high resolution ISOCELL Bright sensor (GW1, 0.8um/64Mp) <ul style="list-style-type: none"> - DCG structure enhances dynamic range - Super PD technology maximizes auto-focus function and enables 480-frames-per-second, full-HD slow motion function - Rich colors by supporting real-time HDR □ High resolution ISOCELL Bright sensor (GM2, 0.8um/48Mp) <ul style="list-style-type: none"> - Super PD technology maximizes auto-focus function and enables 240-frames-per-second, full-HD slow motion function □ World's first 108Mp ISOCELL Bright sensor (HMX, 0.8um/108Mp) <ul style="list-style-type: none"> - AI-ISO-applied S/W controls the amount of light, enhancing color reproduction - Can shoot 30 frames per second in 6k - Improved sensitivity with ISOCELL plus and Tetracell technology □ ISOCELL Slim sensor with world's smallest pixel size (GH1, 0.7um/43.7Mp) <ul style="list-style-type: none"> - Enables easier application of full-screen display set thanks to smaller and thinner module - Supports high-resolution videos and minimizes loss of viewing angle - Improved sensitivity with ISOCELL plus and Tetracell technology □ Industry's first next-generation 108Mp ISOCELL Bright sensor with 2-times the sensitivity enabled by Nonacell technology <ul style="list-style-type: none"> - Enables preview function without compromising picture quality in 3x magnification, thanks to enhanced zoom feature - Features state-of-the-art technologies: smart ISO, real-time HDR, digital correction of shaking images □ Dual-pixel and Tetracell-technology-based sensors (GN1, 1.2um/50Mp) <ul style="list-style-type: none"> - Offers images in 100Mp with dual-pixel technology (2 photodiodes in a pixel) - Takes bright, sophisticated images with Tetracell technology (enables 4 times the sensitivity in the dark) □ Established industry's first lineup of 0.7um-pixel-based image sensors (HM2, GW3, GM5, JD1) <ul style="list-style-type: none"> - Leadership in ultra-small, high-resolution image sensor technology with state-of-the-art 'ISOCELL 2.0' technology and more - (HM2) first to offer 108Mp with 0.7um pixel - (GW3) takes 60-frames-per-second 4K 64Mp images - (GM5) takes 48 Mp images supporting ultra-wide angle and folded zoom - (JD1) ultra-small 32Mp product, optimal for bezel-less design □ Introduced ISOCELL HM3, 108MP premium image sensor (HM3, 0.8um/108Mp) <ul style="list-style-type: none"> - Concentrated 108 million 0.8 μm-size pixels in 1/1.33 inch - Minimizes afterimage with Smart ISO Pro, enabling bright, vivid images - Lens optimal for autofocus with Super PD Plus, enhanced phase detection ability by 50% - Optimal design saves approximately 6% of power under preview mode, compared to previous model □ Introduced image sensor ISOCELL GN2, operating similar to human eyes (GN2, 1.4um/50Mp) <ul style="list-style-type: none"> - Dual Pixel Pro splits pixels diagonally—a world's first - 1.4um pixel delivers brighter and more vivid images - Staggered HDR saves power by approximately 24% compared to previous model □ Introduced ISOCELL JN1 with the industry's first 0.64um pixel (JN1, 0.64um/50Mp) <ul style="list-style-type: none"> - Mass production of ultra-small pixel size, applies high-resolution mobile camera slim design - Applies the most advanced image sensor technology that enhances sensitivity in the dark - Cooperation with camera lens module manufacturers, establishes the ecosystem that is compatible with 1/2.8" products □ Released automotive image sensor ISOCELL Auto 4AC (4AC, 3.0um/1.2Mp) <ul style="list-style-type: none"> - Designed for surround view monitors or rear-view cameras - A safety solution that supports drivers even in tough conditions and minimizes blind spots □ Unveiled a new super-gap mobile image sensor technology (HP1, 0.64um/200Mp and GN5, 1.0um/50Mp) <ul style="list-style-type: none"> - Industry's first "200 million pixels" ISOCELL HP1 - Industry's smallest-sized dual pixel image cell ISOCELL GN5 □ Unveiled 200 million pixel image sensor, industry's smallest pixel size (HP3, 0.56um/200Mp) <ul style="list-style-type: none"> - Reduced camera module area by up to 20% with 12% smaller pixels compared to the previous HP1(0.64um) - With the Super Quad Phase Detection (QPD) technology, enables auto-focusing feature for all 200 megapixels - Utilizes Tetra2pixel technology, which offers vivid picture quality even in low-light environments

DS Division

Research project	Details
<p>Exynos January 2019–March 2022</p>	<ul style="list-style-type: none"> □ World's first modem solution for 5G smartphones (Exynos modem 5100, Exynos RF 5500, Exynos SM 5800) <ul style="list-style-type: none"> - Data transmission 1.7 times faster compared to LTE - New RF · SM, improved power efficiency for transmission □ Best-in-class 7-nano 5G modem (Exynos 5123) <ul style="list-style-type: none"> - Maximum 2 times faster compared to previous model in sub-6GHz 5G network - Achieved maximum speed of 3.0Gbps in 4G network - Supports global Sub-6GHz/mmWave □ SoC for automobile infotainment (Exynos auto V9) <ul style="list-style-type: none"> - Octa-core CPU simultaneously controls 6 displays and 12 cameras - 3 GPU respectively supports dashboard · CID · HUD - NPU enables digital recognition of voice · face · movement - Enhanced stability by securely supporting ASIL-B function □ SoC exclusively for short-distance IoT with low power consumption and enhanced security (Exynos i T100) <ul style="list-style-type: none"> - Processor · memory · communications function in a package □ One-chip integrating 5G modem supporting sub-6GHz and AP (Exynos 980) <ul style="list-style-type: none"> - Supports latest communications feature including EN-DC, Wi-Fi 6 - Enhanced NPU function compared to previous generation and premium products □ Enhanced functions with 5th-generation CPU and premium GPU (Exynos 990) <ul style="list-style-type: none"> - AI processing higher than 10 TOPS enhanced image analyzing and face recognition function - Supports latest LPDDR5 DRAM and high-resolution camera of 50MP↑ □ Launched Exynos 2100, 5G-integrated premium mobile AP <ul style="list-style-type: none"> - Applied state-of-the-art 5-nano EUV process and the latest CPU/GPU, enhancing performance significantly - Optimal design improves performance compared to previous model: more than 30% for CPU, more than 40% for GPU - Enhanced on-device AI function, performs 26 trillion operations per second - Saves power consumption by maximum 20%, features its own power management solution AMIGO - Supports ultrahigh-frequency 5G network, operates maximum 6 image sensors □ Released Exynos W920 built on EUV process for wearable devices <ul style="list-style-type: none"> - Improved performance and power-efficiency by applying advanced 5nm EUV process and design technology - Comes in the smallest package currently available for wearables by applying the most advanced packaging technologies - Boasts 20% more efficient CPU performance and 10 times better graphics performance than its predecessor (Exynos 9110) with the application of the newest ARM cores - Improved power consumption of the processor by 97% under AOD (Always On Display) mode by applying low-power cores for display □ Released Exynos Auto T5123, communications chip for automotives that provide 5G communications service <ul style="list-style-type: none"> - Supports download speed of 5.1Gb/sec, enables seamless access high-capacity, high-definition content even while driving - Equipped with the latest 5G-based multi-mode communication chip that supports both 5G single net and LTE combined net □ Released Exynos Auto V7, processor for automotive infotainment <ul style="list-style-type: none"> - Applies the latest automotive technologies, including Neural Processing Unit (NPU), technology that corrects bad pixel and lens distortion of camera sensors, and image compression technology - GPU supports four independent displays, including digital dashboard, Center Information Display (CID), and Head Up Display (HUD), and up to 12 camera sensors - Equipped with security processor which offers technology that safely stores and prevents physical replication of key information of the car □ Released premium mobile AP 'Exynos 2200' <ul style="list-style-type: none"> - Adopted the next-generation GPU Xclipse jointly developed with AMD, maximized gaming performance and power efficiency - Enabled Ray Tracing technology based on hardware on mobile devices—a first in the industry - Strengthened performance and security by adopting the core based on the latest ARM CPU architecture 'ArmV9' - Enhanced NPU performance by more than twofold compared to the previous model, significantly enhanced machine learning performance

DS Division

Research project	Details
LSI January 2019–March 2022	<ul style="list-style-type: none"> □ PDIC for TA supporting USB-PD 3.0 standard and high-speed charge protocol (MM101) <ul style="list-style-type: none"> - Moisture detection, voltage protection function □ World's first one-chip integrating PDIC and SE (SE8A) <ul style="list-style-type: none"> - Blocks unauthorized products by supporting type-C authorization - Supports advanced security features such as saving security key · authorization certificate, supporting encryption · decryption □ Industry's first integrated power-managing chip for wireless earphones (MUA01, MUB01) <ul style="list-style-type: none"> - Integrates multiple chips, optimized for small-size batteries - Provides optimal solution for rapidly-growing wireless earphone market □ DDI enables optimized ultra-high resolution for 8K TVs and enhanced transmission efficiency (S6CT93P) <ul style="list-style-type: none"> - Enhanced signal quality and development efficiency by utilizing equalizer S/W □ Best integrated security solution for mobile (S3K250AF) <ul style="list-style-type: none"> - Independently developed S/W in H/W security chip, which received EAL 5+ in Common Criteria - Mobile security solution lays the foundation for new mobile services □ Received EAL 6+, the highest rank for mobile device, solution with independently-developed S/W (S3FV9RR) <ul style="list-style-type: none"> - Useable for various smart devices, as the solution operates independently for various processors - Various functions including H/W secure boot, device authentication offer stronger security □ Power management IC for DDR5 DRAM modules (S2FPD01, S2FPD02, S2FPC01) <ul style="list-style-type: none"> - Essential for the next-generation device performance improvement and power saving, three types of power management IC - Applies our own technology of reducing power consumption and overheating, improves operational efficiency up to 91% - Continued expansion of the lineup for power management IC for memory and strengthen technology leadership □ Power management IC for processor for automotive infotainment (S2VPS01) <ul style="list-style-type: none"> - Certified with ASIL-B, a safety standard for automotive systems, and strengthened functional safety - Strengthened stability of the system, including heat prevention and auto-diagnostic functions □ Released all-in-one fingerprint security IC for biometric payment cards (S3B512C) <ul style="list-style-type: none"> - Combines hardware security chip (SE, Secure Element), fingerprint sensor, and Secure Processor in one IC - Received globally accredited certifications in security, EAL6+ from Common Criteria (CC) and global online card payment technical standard (EMVCo) and proved security in line with Mastercard's Biometric Evaluation Plan Summary.
Foundry	
Ship eMRAM solution products (based on 28nm FD-SOI process) March 2019	<ul style="list-style-type: none"> □ Combined low-power process and next-generation embedded memory technology <ul style="list-style-type: none"> - Maximized power efficiency as the product uses low motion power and eliminates standby power and an erase cycle - Supports record speed about 1000 times faster than the previous eFlash □ Embedded to system semiconductor by using minimum layers <ul style="list-style-type: none"> - Reduced production costs thanks to a simpler design structure □ Optimal for MCU/IoT/AI thanks to low-power and small size
5nm EUV process April 2019	<ul style="list-style-type: none"> □ Developed 5nm EUV process with EUV lithography <ul style="list-style-type: none"> - 25% decrease in logic area efficiency with 20% lower power consumption or 10% higher performance compared to 7nm by optimizing cell architecture - Previous 7nm customers can utilize the same IP in the 5nm EUV process
3D IC packaging technology 'X-Cube' August 2020	<ul style="list-style-type: none"> □ Developed 3D IC packaging technology 'X-Cube' and the infrastructure for the design <ul style="list-style-type: none"> - Uses TSV technology to stack different chips individually made from different wafers to make them into one chip <ul style="list-style-type: none"> · Allows greater flexibility in design by reducing the chip size and using high-capacity memory solution · Significant leaps in data-processing speed and power efficiency of system semiconductors - Design method and tools to apply 'X-Cube' on 5-nano and 7-nano processes have been verified. <ul style="list-style-type: none"> · Produced industry's first test chip that stacks SRAM on top of EUV 7-nano logic die
2.5D packaging technology 'I-Cube4' May 2021	<ul style="list-style-type: none"> □ Realized logic chip and four HBM chips into one package to operate it like one semiconductor chip □ Supplied electricity stably and realized ultra-thin electrical wires applying silicon interposer <ul style="list-style-type: none"> - Applied semiconductor process/manufacturing knowhow that prevents the deformation of thin interposers 100µm thick □ Reduced production time and enhanced yield with our distinctive structure that has excellent thermal release performance
8-nano RF process June 2021	<ul style="list-style-type: none"> □ Radio Frequency (RF) process for 5G communication that even supports sub-6GHz and millimeter frequency <ul style="list-style-type: none"> - Provides small, low-power, high quality communication with one-chip solution that supports multi-channel and multi-antenna □ Improved performance of RF with the application of RF-exclusive semiconductor device 'RFeFET (RF extremeFET)' that we developed in house <ul style="list-style-type: none"> - Maximized electrons' movement characteristics by physically stimulating the neighboring areas of channels, which are electrons' moving path □ Power efficiency increased by 35%, analogue circuit area decreased by 35% compared to the previous generation 14-nano RF process <ul style="list-style-type: none"> - Total number of transistors of chips decreased with the drastic improvement of RFeFET performance

DS Division	
Research project	Details
2.5D packaging technology 'H-Cube' November 2021	<ul style="list-style-type: none"> □ 2.5D solution 'Hybrid Cube', which applies silicon interposer technology and hybrid-substrate structure <ul style="list-style-type: none"> - Logic chips and high-bandwidth memory (HBM) are placed on top of a silicon interposer, integrating up to 6HBMs - The hybrid substrate is a dual structure in which the high-end main substrate at the top connects logic/memory chips, and the subsidiary substrate at the bottom that is easy to implement in large-area connects the system board - Minimized the size of the substrate by decreasing the pitch of solder ball, which electrically connects two substrates - Applied chip analysis technology to stably supply power while minimizing signal distortion and loss - Specialized for semiconductors for data center, AI, and network products that require high-performance and large-area packaging technology
World's first 3-nano process that adopts GAA technology June 2022	<ul style="list-style-type: none"> □ World's first mass production of 3-nano process that adopts Gate-All-Around (GAA) transistor technology <ul style="list-style-type: none"> - Maximized power efficiency and performance by implementing 'MBCFET', our in-house GAA technology that utilizes nanosheets - 1st-generation 3-nano process reduced power consumption by 45%, improved performance by 23%, and reduced surface area by 16% compared to 5-nano □ GAA technology overcomes the performance limitations of FinFET, allowing to continue to make smaller chips <ul style="list-style-type: none"> - The gate surrounds all four faces of the channel, which enables finer control of current flow and reduces operating voltage and power consumption - The structure in which the channels are piled up vertically boosts performance as it increases channel width per unit area and allows greater amount of current to flow - The width of channels can be adjusted, giving better design flexibility □ Providing verified 3-nano design infrastructure and services with ecosystem partners □ Planning to expand adoption into high-performance, low-power system semiconductors for HPC, mobile SoCs, etc.

SDC	
Research project	Details
Display panel	
Hole in Display OLED for Galaxy S10 March 2019	<ul style="list-style-type: none"> □ Maximized screen size via world's first commercialization of Flexible Hole in Display <ul style="list-style-type: none"> - One S10 6.1" 3K QHD+(3,040×1,440) Hole, Two S10+ 6.4" Holes □ Offers a comfortable display by significantly decreasing blue light <ul style="list-style-type: none"> - Decreased blue light emission 42% from S9 (TUV Rheinland Eye Comfort Certification)
15.6" UHD OLED for NPC May 2019	<ul style="list-style-type: none"> □ Developed world's first 4K OLED display for NPC <ul style="list-style-type: none"> - 15.6" UHD (3,840 x 2,160), 16:9 - Blue light reduction, shorter response time, wide field of view allow vivid images
4K high-resolution OLED for smartphones June 2019	<ul style="list-style-type: none"> □ Developed world's first 4K mobile OLED display <ul style="list-style-type: none"> - 6.5" UHD (1,644×3,840), 643ppi, 16M Color - Offers original cinematic movie ratio of 21:9
Curved LCD for gaming monitors June 2019	<ul style="list-style-type: none"> □ Developed world's first 240Hz Curved LCD display <ul style="list-style-type: none"> - 27" FHD (1920×1080), 16:9 - High refresh rate of 240Hz, supports G-sync, allowing uninterrupted gaming environment - Curvature of 1500R, wide viewing angle allow highly-immersive gaming experience
Foldable OLED for Galaxy Fold September 2019	<ul style="list-style-type: none"> □ Display innovation by developing the world's first foldable display <ul style="list-style-type: none"> - In-foldable AMOLED (radius: 1.5R) - 7.3" QXGA+ (1,536×2,152), 4:3 - Decreased display thickness by approximately 50% (vs existing panels) by developing polymer composite material
Foldable OLED for Galaxy Z Flip February 2020	<ul style="list-style-type: none"> □ Mass production of world's first glass type window foldable display <ul style="list-style-type: none"> - 6.7" Full HD+(1,080x 2,640) - Improved durability and applied camera hole (first in foldable phones) by using UTG (ultra-thin glass)
WQ+ high-speed OLED for Galaxy S20 March 2020	<ul style="list-style-type: none"> □ Maximized touch feature with world's first WQ+ resolution, 120Hz, high speed <ul style="list-style-type: none"> - S20 6.23"/6.67"/6.87" QHD+(3,200×1,440) - Harmful blue light less than 6.5%, Eye Care Display certified (SGS, international certification institution)
Foldable OLED for Galaxy Z Fold2 September 2020	<ul style="list-style-type: none"> □ World's first mass production of foldable display with a 1.4R curvature <ul style="list-style-type: none"> - 7.6" (2,208 ×1,768) in – foldable - Achieved 1.4R curvature radius via structural design that minimizes folding stress - Improved power efficiency with adaptive frequency (adjusts scan rate from 10-120Hz to screen)
Power-efficient OLED for Galaxy S21 January 2021	<ul style="list-style-type: none"> □ Mass production of innovative power-efficient, high-luminance OLED displays <ul style="list-style-type: none"> - S21: 6.24"/6.67"/6.81" QHD+(3,200×1,440) - New organic material improves luminance efficiency: improved power efficiency by 16% compared to previous model - Enhanced luminance and contrast offers good visibility outdoors (Max/HBM 420/800 → 500/1100nit, Peak 1,785nit) → Sunlight Visibility certification by UL (global safety solutions company)
Foldable OLED for Galaxy Z Fold3 August 2021	<ul style="list-style-type: none"> □ Application of various new technologies to foldables for the first time <ul style="list-style-type: none"> - 7.6" QXGA+7.55" (2,208×1,768) - Removed screen blind spots with the Under Panel Camera technology - Reduced battery consumption compared to its predecessor with the Eco² technology

SDC

Research project	Details
55/65" QD-Display January 2022	<ul style="list-style-type: none"> □ World's first QD-Display for TV (55" UHD, 65" UHD) <ul style="list-style-type: none"> - Exceptional wide color gamut of BT2020 90% - Expresses outstanding brightness and color at any angle with QD display which emits light evenly across all directions - Excellent HDR performance, deep and detailed black expression
34" QD-Display March 2022	<ul style="list-style-type: none"> □ World's first QD-Display for monitor (34" QHD) <ul style="list-style-type: none"> - Provides superb gaming experience by supporting 175Hz, 0.1ms, 1800r, HDR True Black, and G-Sync - Outstanding color, viewing angle, and contrast ratio and minimized exposure to blue light