

# SAMSUNG

## SAMSUNG ELECTRONICS Co., Ltd.

### 2024 Business Report

For the year ended December 31, 2024

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. Business Overview".

# Table of Contents

<i>Certification</i> .....	3
<i>I. Corporate Overview</i> .....	4
<i>II. Businesses Overview</i> .....	21
<i>III. Financial Affairs</i> .....	48
<i>IV. Management Discussion and Analysis</i> .....	253
<i>V. Auditor's Report</i> .....	264
<i>VI. Corporate Governance</i> .....	273
<i>VII. Information on Shareholders</i> .....	297
<i>VIII. Executives and Employees</i> .....	304
<i>IX. Affiliates and Subsidiaries</i> .....	321
<i>X. Transactions with affiliates and subsidiaries</i> .....	340
<i>XI. Other Information</i> .....	344
<i>XII. Appendix</i> .....	354

# Certification

## Letter of Certification

We, Jong-hee Han and Sooncheol Park, as a CEO and the executive in charge of reporting, respectively, certify that we have thoroughly reviewed the annual business report of Samsung Electronics Co., Ltd. for the year ended December 31, 2024.

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: March 11, 2025

Jong-hee Han



Vice Chairman and CEO  
Samsung Electronics Co., Ltd.

Executive responsible for reporting: Sooncheol Park



Vice 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/>

### D. Core businesses

The Company consists of the Device eXperience (DX) Division and Device Solutions (DS) Division, Samsung Display (SDC) and its subsidiaries, and Harman International Industries, Inc. (Harman) and its subsidiaries. SDC runs the display panel business, and Harman operates businesses related to automotive electronics components, etc.

SEC is a global electronics firm comprised of its headquarters in Korea and 228 subsidiaries across the world, including 9 regional headquarters for the DX Division, 5 regional headquarters for the DS Division, production and sales subsidiaries, and SDC and Harman.

Key products by each organization are set forth below:

Organization	Key products
DX Division	TVs, monitors, refrigerators, washing machines, air conditioners, smartphones, telecommunications network systems, PCs, etc.
DS Division	DRAM, NAND flash, mobile APs, etc.
SDC	OLED panels for smartphones, etc.
Harman	Digital cockpits, car audio, portable speakers, etc.

#### [DX Division]

The DX Division consists of businesses engaged in the manufacturing and sales of TVs, monitors, refrigerators, washing machines, air conditioners, smartphones, tablets, wearables, and network systems.

In the TV market, Samsung has led the market in sales since 2006, with 2024 marking our 19th year in the top position. And amid intensifying competition, we are further widening the technological gap with competitors by applying new AI technologies to our flagship products and super big TVs in particular. Additionally, the Digital Appliances (DA) businesses deliver exceptional functionalities featuring technologies that integrate sustainability and efficiency while continuously developing products and services that improve convenience, guided by our deep insights into evolving lifestyles.

In the mobile business, we became the global leader in shipments in 2011 and have maintained that position for 14 straight years. Using the Galaxy brand, we optimize our product portfolio in varying market conditions through our diverse and competitive smartphone lineup that includes entry-level devices through to premium models along with tablets, wearables, and digital wallet.

We will continually provide new value through our technological innovations and preparations for the future based on our unrivaled R&D capabilities. Furthermore, through our R&D efforts, we endeavor to be a market leader for paradigm shifts as we continue to innovate in eco-friendly technologies to keep advancing our products and services.

### **[DS Division]**

The Memory Business, System LSI Business, and Foundry 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 image sensors; and the Foundry Business is in charge of consignment production of semiconductors.

The Memory Business continues to lead the global memory market by focusing on qualitative growth by applying advanced process technology in DRAM and NAND flash products; differentiating our products via a portfolio centered on high-value solutions; and enhancing cost competitiveness, to name a few.

The System LSI Business has not been complacent, having extended its focus from mobile to include automotive chips, and is expanding its market power by enhancing collaborations with customers to offer differentiated products featuring on-device AI, high-performance IP, etc. At the same time, we continue diversify applications and develop next-generation technologies.

For Foundry Business, we are focused on capturing mid- to long-term demand by consistently enhancing our technological competitiveness in advanced nodes and expanding applications in mature nodes, all the while reinforcing our cost competitiveness.

### **[SDC]**

In SDC, the mobile panel business’s differentiated technology is a key factor behind the increased adoption of OLED panels, and we have expanded the overall market with the release of products in a variety of applications, such as foldable devices, IT devices (tablet/notebook PCs), and automotives. Meanwhile, the large panel business is focusing on premium products—such as high-definition, ultra-large, Quantum Dot TVs—and is enhancing its competitiveness by continually improving its technology and productivity.

### **[Harman]**

Harman’s automotive component business develops and supplies products and solutions for connected cars, and its lifestyle audio business provides general audio products and professional audio solutions.

In the automotive component market, Harman is a leading player and supplies car manufacturers with competitive products. In the audio market, Harman’s innovative products have firmly established a strong reputation among consumers and audiophiles alike.

Harman also offers differentiated customer experiences through its expanded collaboration with Samsung Electronics product lines; and it further strengthens each business area via in-house development and strategic acquisitions.

 See [『II. Businesses Overview』](#) for more details about each Division.

## E. Subsidiaries subject to consolidated accounting (summary)

As of December 31, 2024, and in accordance with Korean International Financial Reporting Standards (K-IFRS) 1110, Consolidated Financial Statements, Samsung Electronics, the controlling company, had 228 consolidated subsidiaries, with the addition of 6 subsidiary and reduction of 10 subsidiaries when compared to totals as of December 31, 2024.

Classification	Number of subsidiaries subject to consolidated accounting				Number of major subsidiaries
	As of Jan 1, 2024	Added	Removed	As of Dec 31, 2024	
Listed	-	-	-	-	-
Unlisted	232	6	10	228	142
Total	232	6	10	228	142

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

### [Changes in subsidiaries subject to consolidated accounting]

Classification	Subsidiary	Reason
Newly consolidated	Harman International (Thailand) Co., Ltd.	Establishment
	Oxford Semantic Technologies Limited	Acquisition
	Sonio SAS	Acquisition
	Sonio Corporation	Acquisition
	Samsung Electronics Middle east and North Africa (SEMENA)	Establishment
	SVIC #67 Venture Capital Union	Establishment
No longer consolidated	Harman Financial Group LLC	Liquidation
	Samsung Display Slovakia, s.r.o., v likvidacii (SDSK)	Liquidation
	Samsung Electronics Overseas B.V. (SEO)	Liquidation
	DOWOOINSYS VINA COMPANY LIMITED	Disposal
	Tianjin Samsung Electronics Co., Ltd. (TSEC)	Liquidation
	Dowooinsys Co., Lt	Disposal
	Gf-System Co., Ltd.	Disposal
	Samsung Venture Capital Union SVIC No. 48	Liquidation
	Samsung Venture Capital Union SVIC No. 29	Liquidation
	Samsung Venture Capital Union SVIC No. 40	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 December 31, 2024, SEC's credit ratings were Aa2 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	Rating	Credit rating agency	Note
Corporate bond (USD denominated; issued in 1997 and expire in 2027)	Aug 2022	AA-	S&P	Regular review
	Sep 2022	Aa2	Moody's	
	Jul 2023	AA-	S&P	
	Aug 2023	Aa2	Moody's	
	Feb 2024	Aa2	Moody's	
	Jul 2024	AA-	S&P	

## [Credit ratings definitions]

	Moody's		S&P	
	Rating	Definition	Rating	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	In default or in breach of imputed promises, upon the filing of a bankruptcy petition or the taking of a similar action

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
Stock market (KOSPI)	June 11, 1975	No

## 2. Company history

### A. 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 during the reporting period.

### B. Important changes in management executives

The Company's Board of Directors is composed of Directors who are appointed at the AGM, and the Board decides on important matters of the Company's businesses. As of December 31, 2024, SEC's Board consisted of three Executive Directors (Jong-hee Han, Tae-moon Roh and Jung-bae Lee) and six Independent Directors (Han-jo Kim, Jun-sung Kim, Eunnyeong Heo, Myung-hee Yoo, Je-yoon Shin and Hye-kyung Cho). Samsung's CEOs are appointed by the Board of Directors to lead a Division of the Company. As of December 31, 2024, the CEOs are Jong-hee Han, who was appointed in February 2022 and reappointed in March 2023. Kye-hyun Kyung (appointed in March 2022) resigned from his positions of CEO and Executive Director on May 21, 2024.

Date of change	Type of shareholder meeting	Appointed		Terms expired or dismissed
		Newly appointed	Reappointed	
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 for Audit Committee Member	-
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)

Date of change	Type of shareholder meeting	Appointed		Terms expired or dismissed
		Newly appointed	Reappointed	
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	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	-	-
Mar 19, 2022	-	-	-	Independent Director Jae-wan Bahk (term expired) Independent Director Curie Ahn (term expired)
Apr 20, 2022	-	-	-	Independent Director Wha-jin Han (resigned)
May 17, 2022	-	-	-	Independent Director Byung-gook Park (vacated)
Nov 3, 2022	EGM	Independent Director Eunnyeong Heo Independent Director Myung-Hee Yoo	-	-
Mar 15, 2023	AGM	-	Executive Director Jong-hee Han	-
Mar 15, 2023	-	-	CEO Jong-hee Han	-
Mar 20, 2024	AGM	Independent Director Je-yoon Shin Independent Director Hye-kyung Cho (as Independent Director for Audit Committee Member)	-	Independent Director Sun-uk Kim (vacated)
Mar 22, 2024	-	-	-	Independent Director Jeong Kim (term expired)
May 21, 2024	-	-	-	CEO & Executive Director Kye-hyun Kyung (resigned)
Dec 31, 2024	-	-	-	Executive Director Hark-kyu Park (resigned)

Mar 20, 2024: Hye-kyung Cho was appointed as Independent Director for Audit Committee Member which resulted in the resignation of Independent Director Sun-uk Kim, who was appointed as Audit Committee Member in the same manner in 2021.

## C. 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 December 31, 2024

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.

## D. Company name changes

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

In 2023, Emerald Intermediate, Inc. changed its name to Samsung Display America Holdings, Inc. (SDAH).

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

## E. Mergers and acquisitions

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

In 2023, Samsung Display America Holdings, Inc. (SDAH) acquired shares of eMagin Corporation.

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

## F. Important changes in the Company's business

There were no changes during the reporting period.

## G. Other important matters related to the Company's business

### (1) Important matters related to the Company's business

Year	Products
2020	Launched Grande AI, an AI-based washer and dryer
	Launched ultrahigh speed DRAM for AI and next-generation super computers
	Unveiled Galaxy Z Flip, the first foldable phone
	Started operation of Pyeongtaek Line 2, the world's largest semiconductor line
2021	Unveiled Neo QLED TV
	Received certification for reducing carbon emissions, water use, and waste discharge for all of our semiconductor worksites, a first in the global semiconductor industry
	Started mass producing the industry's most advanced 14-nano EUV DDR5 DRAM
	Announced investment in a new foundry production site in Taylor, Texas, USA
2022	Unveiled Bespoke Infinite Line
	Mass produced 3nm GAA foundry, a world's first
	Held a groundbreaking ceremony for the next-generation semiconductor R&D complex
	Mass produced 1Tb 8th-generation V-NAND
2023	Released ISOCELL HP2, a 200-megapixel image sensor concentrated with ultra-fine pixel technology
	Started mass producing the industry's most advanced 12-nano class DRAM
	Unveiled the Galaxy Z Fold5 and Galaxy Z Flip5

	Developed 32Gb DDR5 DRAM, the largest capacity currently available
	Unveiled Samsung Gauss, a generative AI model
2024	Unveiled Galaxy S24 series, a new lineup of AI phones
	Mass produced 9th-generation V-NAND, an industry first
	Unveiled Galaxy Z Fold6 and Galaxy Z Flip6
	The brand value of Samsung Electronics exceeded USD 100 billion for the first time, ranking us as the world's fifth most valuable brand for the fifth consecutive year
	Developed 24Gb GDDR7 DRAM, an industry first

## (2) Organizational changes

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

Also, the Company separated SDC and the DS Division to align 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, MX Business, Networks)
	IM Division (Mobile, Networks)	
	DS Division (Memory, System LSI, Foundry, Display panel)	DS Division (Memory, System LSI, Foundry)
	Harman Division	SDC (Display panel)
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)	Americas (DS), Europe (DS), China (DS), Southeast Asia (DS), Japan (DS)

### 3. Changes in paid-in capital

There were no changes in paid-in capital during the reporting period.

Due to the retirement of shares, the total par value of the shares issued is KRW 679,267 million (KRW 596,978 million in common stock and KRW 82,289 million in preferred stock), which is not equivalent to paid-in capital of KRW 897,514 million.

Type of stock	Classification	December 31, 2024 (Shares)
Common	Number of issued shares	5,969,782,550
	Par value	100
	Paid-in capital	596,978,255,000
Preferred	Number of issued shares	822,886,700
	Par value	100
	Paid-in capital	82,288,670,000
Total	Paid-in capital	679,266,925,000

### 4. Stock Information

#### A. Total number of shares

As of December 30, 2024, 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 5,940,082,550 for common shares and 818,836,700 for preferred shares.

As of December 31, 2024

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	29,700,000	4,050,000	33,750,000	-

VI. Outstanding shares (IV-V)	5,940,082,550	818,836,700	6,758,919,250	-
VII. Ratio of treasury share holding	0.5	0.5	0.5	-

## B. Treasury shares

In 2024, SEC acquired 29,700,000 common shares and 4,050,000 preferred shares to enhance shareholder value.

As of Dec 31, 2024

(Shares)

Acquisition method	Share type	Period-start	Change			Period-end	Remarks				
			Acquisition (+)	Disposal (-)	Cancellation (-)						
<b>Repurchases within the allowable distribution profit</b>											
<b>Direct</b>											
On-market	Common	-	29,700,000	-	-	29,700,000	-				
	Preferred	-	4,050,000	-	-	4,050,000	-				
Off-market	Common	-	-	-	-	-	-				
	Preferred	-	-	-	-	-	-				
Tender offer	Common	-	-	-	-	-	-				
	Preferred	-	-	-	-	-	-				
Subtotal (a)	Common	-	29,700,000	-	-	29,700,000	-				
	Preferred	-	4,050,000	-	-	4,050,000	-				
<b>Through trust agreement</b>											
Trustee holdings	Common	-	-	-	-	-	-				
	Preferred	-	-	-	-	-	-				
Physical holdings	Common	-	-	-	-	-	-				
	Preferred	-	-	-	-	-	-				
Subtotal (b)	Common	-	-	-	-	-	-				
	Preferred	-	-	-	-	-	-				
Other acquisitions (c)	Common	-	-	-	-	-	-				
	Preferred	-	-	-	-	-	-				
Total (a+b+c)	Common	-	29,700,000	-	-	29,700,000	-				
	Preferred	-	4,050,000	-	-	4,050,000	-				

## Status of direct acquisition and disposal of repurchases shares as of Dec 31, 2024

(Shares)

Expected acquisition (disposal) period		Expected amount (A)	Executed amount (B)	Execution rate (B/A)	Result reporting date
Start date	End date				
Nov 20, 2024	Feb 17, 2025	57,056,664	33,750,000	59.1%	Feb 17, 2025

The Board of Directors on November 15, 2024, resolved to repurchase 57,056,664 shares (50,144,628 common; 6,912,036 preferred) to enhance shareholder value. As of end-2024, 29,700,000 common shares and 4,050,000 preferred shares had been repurchased.

The repurchase of 57,056,664 shares (50,144,628 common; 6,912,036 preferred) completed on February 13, 2025. All repurchased shares were cancelled on February 20, 2025 (execution date of cancellation by Korea Securities Depository) following a resolution of the Board.

## C. Types of registered stock

SEC has two types of registered equity securities: 1) common stock; 2) non-voting and non-cumulative preferred stock.

The shareholders of preferred stock are entitled to dividend payments of an additional 1% of par value compared to shareholders of common stock. As of December 31, 2024, the number of issued non-cumulative and non-voting preferred stock totaled 822,886,700.

(KRW)

Date of issue	Aug 25, 1989	
Per-share price at issue   Per-share par value	576	100
Total shares issued   Shares issued	119,467,135,000	1,194,671,350
Amount to date   Total number of shares issued to date	82,288,670,000	822,886,700
<b>Stock details</b>		
Duration (validity period of preferred share rights)	-	
Dividend matters	Entitled to dividend payments of an additional 1% of par value compared to common shares	
Matters on residuary distribution	-	
Matters on redemption	Redemption right holder	None
	Redemption conditions	-
	Redemption method	-
	Redemption period	-
	Redemption value per share	-
	Redemption expected within a year	-
Matters on conversion	Conversion right holder	None
	Conversion conditions (including change in conversion ratio)	-
	History of exercised conversion rights after issuance	N/A
	Conversion period	-
	Types of shares to be issued with the conversion	-
	Number of shares to be issued after the conversion	-
Matters on voting rights	No voting rights	

Other factors to consider when making investment decisions (matters on shareholders' agreement and financial covenants, etc.)	
---	--

The issued date and issued price per share are based on the initial issuance date (issued price per share is based on post-stock split)

Due to the cancellation of shares, the total par value of issued stocks is KRW 82,289 million and is thus different from the paid-in capital (KRW 119,467 million).

The total number of shares issued to date and the number of shares to date above reflect the changes in the number of shares due to the stock split in 2018

Preferred stock, by issue date (KRW, shares)

Date	Change	Details of increase/decrease					
		Type	Number of shares	Par value per share	Total par value	Issue price per share	Total issue value
Aug 25, 1989	Rights issue	Preferred	3,400,000	5,000	17,000,000,000	28,800	97,920,000,000
Aug 25, 1989	Bonus issue	Preferred	340,000	5,000	1,700,000,000	5,000	1,700,000,000
Oct 29, 1990	Exercise of conversion rights	Preferred	371,620	5,000	1,858,100,000	29,600	10,999,952,000
Mar 19, 1991	Exercise of conversion rights	Preferred	40,898	5,000	204,490,000	29,341	1,199,988,218
Mar 30, 1991	Exercise of conversion rights	Preferred	5,112	5,000	25,560,000	29,341	149,991,192
Apr 8, 1991	Exercise of conversion rights	Preferred	1,704	5,000	8,520,000	29,341	49,997,064
May 17, 1991	DR issuance	Preferred	1,907,671	5,000	9,538,355,000	37,973	72,439,990,883
Jul 24, 1991	Exercise of conversion rights	Preferred	34,081	5,000	170,405,000	29,341	999,970,621
Jul 30, 1991	Exercise of conversion rights	Preferred	20,449	5,000	102,245,000	29,341	599,994,109
Jul 31, 1991	Exercise of conversion rights	Preferred	64,754	5,000	323,770,000	29,341	1,899,947,114
Aug 30, 1991	Exercise of conversion rights	Preferred	214,716	5,000	1,073,580,000	29,341	6,299,982,156
Sep 30, 1991	Exercise of conversion rights	Preferred	20,448	5,000	102,240,000	29,341	599,964,768
Jun 17, 1993	DR issuance	Preferred	2,542,372	5,000	12,711,860,000	47,312	120,284,704,064
Oct 29, 1993	Exercise of conversion rights	Preferred	105,999	5,000	529,995,000	28,302	2,999,983,698
Nov 12, 1993	DR issuance	Preferred	2,158,273	5,000	10,791,365,000	55,975	120,809,331,175
Nov 29, 1993	Exercise of conversion rights	Preferred	58,295	5,000	291,475,000	28,302	1,649,865,090
Nov 30, 1993	Exercise of conversion rights	Preferred	19,079	5,000	95,395,000	28,302	539,973,858
Apr 6, 1994	DR issuance	Preferred	1,086,956	5,000	5,434,780,000	74,502	80,980,395,912

Date	Change	Details of increase/decrease					
		Type	Number of shares	Par value per share	Total par value	Issue price per share	Total issue value
Jun 3, 1994	Exercise of conversion rights	Preferred	16,027	5,000	80,135,000	25,809	413,640,843
Jun 6, 1994	Exercise of conversion rights	Preferred	9,072	5,000	45,360,000	25,809	234,139,248
Jun 13, 1994	Exercise of conversion rights	Preferred	17,236	5,000	86,180,000	25,809	444,843,924
Jun 22, 1994	Exercise of conversion rights	Preferred	1,209	5,000	6,045,000	25,809	31,203,081
Jun 27, 1994	Exercise of conversion rights	Preferred	16,632	5,000	83,160,000	25,809	429,255,288
Jun 28, 1994	Exercise of conversion rights	Preferred	54,131	5,000	270,655,000	25,809	1,397,066,979
Jun 29, 1994	Exercise of conversion rights	Preferred	292,127	5,000	1,460,635,000	25,809	7,539,505,743
Jun 30, 1994	Exercise of conversion rights	Preferred	52,922	5,000	264,610,000	25,809	1,365,863,898
Jul 1, 1994	Exercise of conversion rights	Preferred	232,854	5,000	1,164,270,000	25,809	6,009,728,886
Jul 4, 1994	Exercise of conversion rights	Preferred	116,426	5,000	582,130,000	25,809	3,004,838,634
Jul 5, 1994	Exercise of conversion rights	Preferred	188,401	5,000	942,005,000	25,809	4,862,441,409
Jul 6, 1994	Exercise of conversion rights	Preferred	686,164	5,000	3,430,820,000	25,809	17,709,206,676
Jul 7, 1994	Exercise of conversion rights	Preferred	270,349	5,000	1,351,745,000	25,809	6,977,437,341
Jul 8, 1994	Exercise of conversion rights	Preferred	977,068	5,000	4,885,340,000	25,809	25,217,148,012
Jul 12, 1994	Exercise of conversion rights	Preferred	6,048	5,000	30,240,000	25,809	156,092,832
Jul 19, 1994	Exercise of conversion rights	Preferred	68,040	5,000	340,200,000	25,809	1,756,044,360
Jul 20, 1994	Exercise of conversion rights	Preferred	4,232	5,000	21,160,000	25,809	109,223,688
Aug 12, 1994	Exercise of conversion rights	Preferred	944	5,000	4,720,000	25,502	24,073,888
Mar 13, 1995	Bonus issue	Preferred	3,028,525	5,000	15,142,625,000	5,000	15,142,625,000

Date	Change	Details of increase/decrease					
		Type	Number of shares	Par value per share	Total par value	Issue price per share	Total issue value
Mar 13, 1996	Bonus issue	Preferred	5,462,593	5,000	27,312,965,000	5,000	27,312,965,000
Apr 14, 2003	Share cancellation	Preferred	-470,000	5,000	-2,350,000,000	-	-
Jan 15, 2004	Share cancellation	Preferred	-330,000	5,000	-1,650,000,000	-	-
May 4, 2004	Share cancellation	Preferred	-260,000	5,000	-1,300,000,000	-	-
Jan 15, 2016	Share cancellation	Preferred	-1,240,000	5,000	-6,200,000,000	-	-
Apr 20, 2016	Share cancellation	Preferred	-530,000	5,000	-2,650,000,000	-	-
Jul 19, 2016	Share cancellation	Preferred	-320,000	5,000	-1,600,000,000	-	-
Sep 28, 2016	Share cancellation	Preferred	-230,000	5,000	-1,150,000,000	-	-
Apr 12, 2017	Share cancellation	Preferred	-255,000	5,000	-1,275,000,000	-	-
May 2, 2017	Share cancellation	Preferred	-1,614,847	5,000	-8,074,235,000	-	-
Jul 24, 2017	Share cancellation	Preferred	-225,000	5,000	-1,125,000,000	-	-
Oct 25, 2017	Share cancellation	Preferred	-168,000	5,000	-840,000,000	-	-
Jan 30, 2018	Share cancellation	Preferred	-178,000	5,000	-890,000,000	-	-
May 3, 2018	Stock split	Preferred	885,556,420	100	-	-	-
Dec 4, 2018	Share cancellation	Preferred	-80,742,300	100	-8,074,230,000	-	-
Preferred stock total			822,886,700		82,288,670,000		642,261,376,652

## 5. Changes to Articles of Incorporation

### A. History of Articles of Incorporation

The Articles of Incorporation were amended at the 55th AGM held on March 20, 2024.

- For details of the changes to Articles of Incorporation, please refer to the “Announcement of Shareholders’ Meeting” for the 55<sup>th</sup> AGM disclosed on Financial Supervisory Service’s DART (<http://dart.fss.or.kr>).

Date of change	AGM	Key changes	Reasons for change
Mar 20, 2024	55th AGM	<ul style="list-style-type: none"> <li>- Types of share certificates has been deleted</li> <li>- Administrative procedure for the transfer agent has been modified; provision requiring the reporting of shareholder information to the transfer agent has been deleted; provisions such as preparing the register of shareholders based on particulars of shareholders have been established</li> <li>- Provisions related to the closing of register have been deleted</li> <li>- Article for electronic registration of rights to be indicated on the share, bonds, and subscription warrants has been introduced</li> <li>- Compensation Committee, Sustainability Committee, and Related Party Transactions Committee have been specified to operate under the Board of Directors</li> <li>- Notice period for convening a Meeting of the Board has been changed from “at least 24 hours prior” to “7 days prior” to the meeting, provided that this notification period can be shortened to “at least 24 hours prior” in urgent circumstances.</li> <li>- Revision of other articles: Article 38 (Disposition of Profits), Article 40 (Approval of Transaction with Specially Related Parties, etc.)</li> </ul>	<p>Revision of Articles related to the electronic securities</p> <ul style="list-style-type: none"> <li>- Addition of Committees established under the Board of Directors</li> <li>- Changes in the notice period for convening Board of Directors meeting</li> </ul>

### B. Purpose of Business

[Purpose of Business]

No.	Business purpose	Status
1	Manufacture, sale, collection service, lease and maintenance service of electronic and electrical machines and appliances, other related equipments and their components	Operating
2	Manufacture, sale, collection service, lease and maintenance service of communication machines & appliance, other related equipment and their components	Operating
3	Manufacture and sale of medical equipment	Operating
4	Manufacture, sale and maintenance service of luminous disk, luminous source-applied machines and appliances and their components	Operating
5	Manufacture, sale, lease and maintenance service of optical fiber, cable and other related equipment	Operating
6	Manufacture, sale, collection service, lease and maintenance service of electronic computer system and other related products	Operating
7	Manufacture, sale and lease of copyright works and computer programs, etc.	Operating
8	Sale and lease of know-how and technology	Operating
9	Construction, operation and engineering service of information communication systems	Operating
10	Manufacture, sale, lease and maintenance service of automatic control systems and applied equipment	Operating
11	Manufacture, sale, lease and maintenance service of machine tools and their components	Operating

No.	Business purpose	Status
12	Manufacture and sale of semiconductors and other related products	Operating
13	Manufacture and sale of manufacturing facilities for semiconductors	Operating
14	Manufacture and sale of raw and accompanying materials for semiconductor manufacturing	Operating
15	Manufacture and sale of other machines and appliances	Operating
16	Manufacture, processing and sale of synthetic resins	Operating
17	Refining, processing and sale of metals other than gold	Operating
18	Export, import and its agency business	Operating
19	Cultivation and sale of cash crop	Inactive
20	Real estate business	Operating
21	Offer business	Operating
22	Manufacture, sale and test of gauge and measuring instruments, etc.	Operating
23	Technology service for the above items, construction of information communication and construction of electric connection system	Operating
24	Lease and sale of residential lots	Operating
25	Sports, games and other related businesses	Operating
26	Manufacture of electric motor, power generator and electric converter apparatus	Operating
27	Manufacture of electricity supply and control devices	Operating
28	Educational service and other services related to business	Operating
29	Business and investment incidental to any of the foregoing	Operating

## II Businesses Overview

### 1. Overview

In addition to our headquarters in Korea, Samsung Electronics Co., Ltd. (Samsung Electronics, SEC, or the Company) consists of 228 subsidiaries across the world responsible for sales and production, which include 9 regional headquarters for the 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 form a two-pronged framework consisting of finished products businesses and component businesses. For finished products, the DX Division is responsible for the production and sales of TVs, monitors, refrigerators, washing machines, air conditioners, smartphones, computers, network systems, and PC. For components, the DS Division manufactures and sells DRAM, NAND flash, and mobile APs; and SDC manufactures and sells panels, including mobile OLED panels. Harman manufactures and sells automotive products such as digital cockpits; car-audio products; and consumer audio products such as portable speakers and soundbars.

☞ 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—and 31 consolidated subsidiaries are located in Korea. The 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 197 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 47 subsidiaries in the Americas, including SEA, which is in charge of US sales (New Jersey; sales of finished products including TV and smartphones), 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 Europe and CIS, we operate 68 subsidiaries, including SEUK (UK), SEG (Germany), SEF (France), SEI (Italy) for sales of finished products; SEH (Hungary) for manufacturing TVs, and SEPM (Poland) for manufacturing home appliances.

We have 21 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.

There are 32 subsidiaries in Asia (excluding 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 smartphones, SEHC (Vietnam) for TVs, SDV (Vietnam) for display panels, and SIEL (India) for multiple products.

We operate 29 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 semiconductor and display panel sales. Production sites for finished products include SSEC (Suzhou) and semiconductor production facilities are located in SCS (Xian) among others.

In 2024, the Company recorded total revenue of KRW 300,870.9 billion, an increase of 16.2% year-on-year. Major customers (listed in alphabetical order) included Apple, Deutsche Telekom, Hong Kong Techtronics, 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, smartphones, and components such as semiconductors (e.g., DRAM, NAND flash, mobile APs) and mobile OLED panels. Through Harman, the Company also produces and sells digital cockpits, car audio products, portable speakers, and more.

In 2024, reported revenue was KRW 174,887.7 billion (58.1% of total net sales) for DX; KRW 111,066.0 billion (36.9%) for DS; KRW 29,157.8 billion (9.7%) for SDC; and KRW 14,274.9 billion (4.7%) for Harman.

(KRW 100 mil)

Organization	Major products	Revenue	Portion
DX Division	TVs, monitors, refrigerators, washing machines, air conditioners, smartphones, network systems, PC, etc.	1,748,877	58.1%
DS Division	DRAM, NAND flash, mobile APs, etc.	1,110,660	36.9%
SDC	OLED smartphone panels, etc.	291,578	9.7%
Harman	Digital cockpits, car audio products, portable speakers, etc.	142,749	4.8%
Others	Overlapping internal transactions between Divisions	-285,155	-9.5%
Total		3,008,709	100.0%

Includes inter-divisional transactions.

☞ See **『4. Revenue and long-term contracts』** for information by each product.

### **B. Changes in average selling price**

In 2024, on a year-on-year basis, the average selling price (ASP) of TVs decreased by approximately 2% and the ASP of smartphones increased by around 2%. Memory-product ASP rose by approximately 63%, and the ASP of OLED panels for smartphones decreased by approximately 29%, while the digital cockpit ASP increased by approximately 1%.

## **3. Production materials and production facilities**

### **A. Key production materials**

For the DX Division, key materials include mobile AP solutions 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 chemicals and wafers, supplied by Soulbrain, SUMCO, etc., and for SDC, key materials include FPCAs and cover glass, with suppliers such as BH, Apple, etc. For Harman, key materials include system-on-chip (SoC) products, including microcontroller units, communication modules, etc., which are supplied by Nvidia and WNC, etc.

Organization	Item	Specific usage	Purchase price	Portion	Main supplier(s)
DX Division	Mobile AP solutions	CPU	109,326	16.1%	Qualcomm, MediaTek, etc.
	Display panel	Color picture signaler for TV, monitor	75,825	11.2%	CSOT, AUO, etc.
	Camera module	Camera for smartphone	55,356	8.2%	Semco, Partron , etc.
	Others	-	437,451	64.5%	
	Sub total		677,958	100.0%	
DS Division	Chemical	Disk processing	27,234	16.7%	Soulbrain, DongWoo Fine-Chem, etc.
	Wafer	Semiconductor disk	21,363	13.1%	SUMCO , Siltronic, etc.
	Others	-	114,876	70.2%	
	Sub total		163,473	100.0%	
SDC	FPCA	Circuit	25,342	20.3%	BH, CU-Tech, etc.
	Cover glass	Tempered glass	16,248	13.0%	Apple, LENS, etc.
	Others	-	83,376	66.7%	
	Sub total		124,966	100.0%	
Harman	SoC	CPU	7,157	9.4%	Nvidia, Intel, Renesas, Arrow
	Communication module	Vehicular communication	4,322	5.6%	Wistron Neweb Corp, Compal
	Others	-	65,068	85.0%	
	Sub total		76,547	100.0%	
Others	-	-	420	-	
Total			1,043,364	-	

Purchase price does not include sales between Divisions.

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

Semco (Samsung Electro-Mechanics) is a subsidiary.

## B. Production material price trends

On a year-on-year basis, mobile APs—a major production material for the DX Division—saw a price increase of approximately 7%, while the prices of camera modules and TV- and monitor-use display panels increased in the region of 4% and 11%, respectively. The price of wafers for semiconductor disks decreased by approximately 4%, and the price of FPCAs for SDC declined by approximately 21%. The price of tempered glass cover glass fell by approximately 23%. For Harman, the price of SoCs decreased by about 5%, and the price of communication modules decreased by approximately 8%.

※ Data include internal transactions between Divisions, etc.

## C. Production capacity, output, utilization rate

### (Capacity)

Organization	Item	Capacity			(1,000 units)
		2024	2023	2022	
DX Division	TV, monitor, etc.	51,795	53,552	55,747	
	Smartphone, etc.	265,700	284,700	332,170	
DS Division	Memory	2,238,240,405	1,926,651,546	1,905,731,836	
SDC	Display panel	2,264	2,320	2,700	
Harman	Digital cockpit	8,520	10,912	11,257	

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 (×) the average output per hour (×) the average operation hours per day (×) 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 (×) the production capacity per hour by production cell (×) the standard operation hours per day (×) standard days of operation

### (Output)

In 2024, the DX Division's output of TVs, monitors, etc., was 41,354 thousand units (major production sites: Mexico, Vietnam, Brazil, and Hungary), and smartphone output was 193,500 thousand units (major production sites: Korea [Gumi], Vietnam, India, and Brazil). The DS Division's memory output in 1Gb equivalents was 2,238,240 million (major production sites: Korea [Hwaseong, Pyeongtaek, etc.] and China). SDC's display panel output in 8th generation glass equivalents was 1,759 thousand units (major production sites in Korea [Cheonan, Asan]). Harman's Digital cockpit output was 5,814 thousand units (major production sites in Mexico, Hungary, and China).

Organization	Item	Output			(1,000 units)
		2024	2023	2022	
DX Division	TV, monitor, etc	41,354	40,085	41,802	
	Smartphone, etc	193,500	189,991	229,180	
DS Division	Memory	2,238,240,405	1,926,651,546	1,905,731,836	
SDC	Display panel	1,759	1,407	2,008	
Harman	Digital cockpit	5,814	7,658	8,334	

Output for major product categories on a consolidated basis.

### (Utilization rate)

DX utilization rates in 2024 were calculated as actual output relative to production capacity. The utilization rates were 79.8% for TVs, monitors, etc. and 72.8% for smartphones, etc.

Organization	Item	2024		
		Production capacity	Output	Utilization rate
DX Division	TV, monitor, etc	51,795	41,354	79.8%
	Smartphone, etc	265,700	193,500	72.8%

The DS Division and SDC respectively operate memory and display panel production in three shifts covering 24 hours a day. Cumulative operating days including holidays were 366 days in 2024. The utilization rate was calculated as the actual production time relative to the potential production capacity [operating days ( $\times$ ) number of production lines ( $\times$ ) 24 hours].

Organization	Item	2024		
		Potential production time	Actual production time	Utilization rate
DS Division	Memory	87,840	87,840	100.0%
SDC	Display panel	43,920	43,920	100.0%

In 2024, Harman's utilization rate was 68.2% and was calculated as actual output relative to production capacity.

Organization	Item	2024		
		Production capacity	Output	Utilization rate
Harman	Digital cockpit	8,520	5,814	68.2%

## 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
	Seocho	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	Riyadh , KSA
	Africa	Johannesburg, South Africa
	Latin America	Sao Paolo, Brazil
Overseas (DS Division – 5 regional headquarters)	Americas	San Jose, US
	Europe	Munich, Germany
	China	Shanghai, China
	Southeast Asia	Singapore, Singapore
	Japan	Tokyo, Japan
Harman	North America HQ	Connecticut, US
	Harman Becker Automotive Systems, Inc.	Michigan, USA
	Harman Becker Automotive Systems GmbH	Karlsbad, Germany
	Harman Consumer Nederland B.V.	Amsterdam, Netherlands

The Company's property, plant and equipment include land, buildings and structures, machinery and equipment, and construction in progress. As of December 31, 2024, the total book value was KRW 205,945.2 billion, which is an increase of KRW 18,688.9 billion from year-end 2023.

Classification		Land	Buildings and structures	Machinery and equipment	Under construction	Other tangible assets	Total
Dec 31, 2023	Book value	99,994	432,381	833,092	467,203	39,893	1,872,563
	- Acquisition cost	101,580	736,899	3,285,615	467,203	140,587	4,731,884
	- Accumulated depreciation (including impairment loss)	-1,586	-304,518	-2,452,523	-	-100,694	-2,859,321
Change*	General acquisition and capital expenditure	2,449	70,576	402,196	50,731	23,470	549,422
	Acquisition through M&A	-	-	-	-	2	2
	Depreciation	-500	-42,683	-337,447	-	-15,870	-396,500
	Disposal/discard/Impairment	-273	-5,250	-1,578	-504	-318	-7,923
	Others	812	15,295	12,803	13,743	-765	41,888
Dec 31, 2024	Book value	102,482	470,319	909,066	531,173	46,412	2,059,452
	- Acquisition cost	104,350	824,153	3,732,764	531,173	158,521	5,350,961
	- Accumulated depreciation (including impairment loss)	-1,868	-353,834	-2,823,698	-	-112,109	-3,291,509

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.

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

### (Capex)

The Company's capex in 2024 was approximately KRW 53.6 trillion, with investments concentrating on capacity expansions and migration to advanced nodes; and directing at infrastructure for the DS Division and SDC. The Company continued to invest to strengthen competitiveness for next-generation Memory technology and prepare for mid- to long-term demand. For system semiconductors, we are also investing to secure capacity for advanced technologies. Furthermore, we will focus on enhancing our investment efficiency by fortifying fundamentals.

#### Capex, by organization

(KRW 100 mil)

Organization	Purpose	Period	Assets	Investment
DS division	Establishment, addition, upgrade	January–December 2024	Buildings, facilities, etc.	462,792
SDC	Establishment, addition, upgrade	January–December 2024	Buildings, facilities, etc.	48,351
Other	Establishment, addition, upgrade	January–December 2024	Buildings, facilities, etc.	25,318
Total				536,461

## 4. Revenue and long-term contracts

### A. Revenue

In 2024, the Company recorded total revenue of KRW 300,870.9 billion, an increase of 16.2% year-on-year. By organization, when compared to the same period last year, revenue increased by a respective 2.9% and 66.8% in the DX Division and DS Division; and decreased by a respective 5.9% and 0.8% in SDC and Harman.

(KRW 100 mil)

Organization	Revenue types	Product categories	2024	2023	2022
DX Division	Goods, products, services, other	TVs, monitors, refrigerators, washing machines, air conditioners, smartphones, Network systems, computers, etc.	1,748,877	1,699,923	1,824,897
DS Division	Goods, products, services, other	DRAM, NAND flash, mobile APs, etc.	1,110,660	665,945	984,553
SDC	Goods, products, services, other	OLED panels for smartphones, etc.	291,578	309,754	343,826
Harman	Goods, products, services, other	Digital cockpit, car-audios, portable-speakers, etc.	142,749	143,885	132,137
Others	Overlapping internal transactions between Divisions		-285,155	-230,152	-263,099
Total			3,008,709	2,589,355	3,022,314

Includes inter-divisional transactions.

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

(KRW 100 mil)

Classification	2024	2023	2022
TVs, monitors, etc.	309,316	303,752	332,795
Smartphones, etc.	1,144,249	1,086,325	1,154,254
Memory	844,630	441,254	685,349
Display panels	291,578	309,754	343,826

Includes inter-divisional transactions.

#### (2) Revenue, by type

(KRW 100 mil)

Classification	2024	2023	2022
Products	2,933,617	2,461,380	2,903,461
Services and other revenue	75,092	127,975	118,853
Total	3,008,709	2,589,355	3,022,314

Other revenue consists of royalty income, etc.

### (3) Revenue, by region (on a separate basis)

(KRW 100 mil)

Classification	2024	2023	2022
Domestic	202,978	205,196	221,799
Export	Americas	613,533	510,934
	Europe	290,967	239,342
	Asia and Africa	333,769	326,262
	China	649,275	422,007
Total	2,090,522	1,703,741	2,118,675

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, etc.)	

### (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	Retailer	

### (3) Sales ratio (global), by channel

Channel	Wholesale	Retail	Special/direct sales	Others
Ratio	16%	25%	50%	9%

## 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 2024, major customers (listed alphabetically) included Apple, Deutsche Telekom, Hong Kong Techtronics, Supreme Electronics, and Verizon. Sales to the five major customers accounted for approximately 14% of total sales.

## F. Long-term contracts

As of December 31, 2024, 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 focuses on minimizing market risk, credit risk, and liquidity risk arising from operating activities. To mitigate these risks, the Company monitors each risk factor and operates corresponding financial risk management policies and programs.

The Company manages financial risks by establishing global financial risk management policies and periodically assessing risks associated with our customers and business partners; and via monitoring foreign exchange hedging and balance of funds.

Meanwhile, the Company manages exchange rate risk via monitoring exchange rates and executing 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, etc.

### **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, and others.

The Company focuses on minimizing the impact of foreign exchange fluctuation by maintaining an equal amount of assets and liabilities denominated in each foreign currency. To minimize foreign exchange positions, the Company's foreign exchange management policy requires transactions for normal business (including imports and exports) and for financing (such as deposits/borrowings) to be in the functional currency or for the cash-in currency to match the cash-out currency. If foreign exchange positions arise, the Company uses bond sales, forward exchanges, etc., to mitigate impacts of exchange-rate fluctuations. While such measures can reduce foreign exchange risk, they cannot remove the risk entirely. The Company efficiently manages foreign exchange risk through regular monitoring and assessments, and speculative foreign exchange transactions are strictly forbidden.

The impacts of a 5% change in currency rates on the profits or losses (before income tax) arising from financial assets and liabilities denominated in foreign currencies other than functional currency as of the reporting date are as follows:

Classification	December 31, 2024		December 31, 2023	
	Increase	Decrease	Increase	Decrease
	365,273	-365,273	418,776	-418,776
USD				
EUR	88,649	-88,649	151,740	-151,740

##### **(Interest rate risk)**

Interest rate risk arises from changes in the market interest rate and subsequent fluctuations in cash flows from interest income and expenses from investment and financial activities, mainly in deposits and variable-rate borrowings. The

Company employs internal fund sharing to minimize external borrowings and minimize financial costs and uncertainties associated with interest rate changes.

The impacts of a 1% p change in interest rates on profit or loss (before income tax) arising from floating-rate financial assets and liabilities as of the reporting date are as follows:

Classification	December 31, 2024		December 31, 2023		(KRW mil)
	Increase	Decrease	Increase	Decrease	
Financial assets	141,671	-141,671	210,617	-210,617	
Financial liabilities	-5,702	5,702	-6,197	6,197	
Net effect	135,969	-135,969	204,420	-204,420	

### (Stock 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 December 31, 2024, a price fluctuation of marketable equity securities (listed stocks) of 1% changes 'other comprehensive income' (before income tax) by KRW 76,865 million and profit or loss (before income tax) by KRW 862 million. The figures as of the same date in 2023 were KRW 52,510 million and KRW 3,472 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 that have a strong international credit rating (S&P A and above), and all new transactions with financial institutions with no prior transaction history are carried out after a soundness evaluation, etc. 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.

### (3) Liquidity risk

Liquidity risk refers to the possibility of a company having difficulties in fulfilling its obligations related to financial liabilities. Our main sources of liquidity are cash generated by business operations and funds procured from capital market and financial institutions. The main demands on our liquidity include investment for production and R&D, working capital, and dividend payouts.

The nature of our business requires making large investments, so maintaining an adequate liquidity is crucial. We maintain and manage our liquidity by estimating required cash, managing income and expenses, etc.

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 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 potential large liquidity needs. As of the reporting period end date, our investment ratings from international rating

agencies Moody's and S&P are Aa2 and AA-, respectively, allowing us to raise capital in the capital market in a timely manner.

The following table is an undiscounted cash flow analysis for financial liabilities according to their remaining contractual maturity from the end of the reporting date to the contractual maturity date.

1) As of December 31, 2024

	<b>Less than 3 months</b>	<b>~6 months</b>	<b>~12 months</b>	<b>1–5 years</b>	<b>More than 5 years</b>	(KRW mil)
Financial liabilities	55,955,211	1,369,038	1,819,044	7,654,816	1,802,556	

2) As of December 31, 2023

	<b>Less than 3 months</b>	<b>~6 months</b>	<b>~12 months</b>	<b>1–5 years</b>	<b>More than 5 years</b>
Financial liabilities	43,302,421	589,743	1,529,785	7,811,246	2,337,792

#### (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 December 31, 2024, the figures for total liabilities and total equity are as follows:

	<b>Dec 31, 2024</b>	<b>Dec 31, 2023</b>	(KRW mil)
Total liabilities	112,339,878	92,228,115	
Total equity	402,192,070	363,677,865	
Total liabilities to equity ratio	27.9%	25.4%	

#### 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 December 31, 2024, the Company had 5,862 currency forward contracts involving 32 foreign currencies, such as USD and EUR, etc., and the book value of assets and liabilities as well as related gain and loss were as follows:

	<b>Assets</b>	<b>Liabilities</b>	<b>Valuation gain</b>	<b>Valuation loss</b>	(KRW mil)
Currency forwards	89,982	94,559	911,628	700,046	

According to the shareholders' agreement signed with Rainbow Robotics, its major shareholder, etc., the Company has the right, within a specific time period, to demand that the major shareholder, etc., sell all or part of their Rainbow Robotics

shares to the Company or the third party designated by the Company. Moreover, the major shareholder, etc., of Rainbow Robotics has the right to demand that the Company sell all or part of the Company's Rainbow Robotics shares back to the major shareholder, etc., under certain conditions. On December 31, 2024, the Board of Directors resolved to exercise a call option to acquire 3.94 million shares held by six shareholders, including the major shareholder of Rainbow Robotics. The acquisition price of 267.463 billion won will be paid when the necessary administrative procedures regarding the equity acquisition are completed, which have been underway since the end of 2024.

The fair value of the call option as of end-2024 was evaluated by Anjin Accounting Corporation.

Furthermore, 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 dated April 8, 2021.

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 dated April 1, 2021.

Fair value of the above put option as of December 31, 2024 was evaluated by Earnest & Young Global Limited.

## **6. Major contracts and research and development activities**

### **A. Major contracts**

Account	Contract information	Contents
Google	Type	Patent cross-license agreement
	Date	Jan 25, 2014
	Purpose and contents	Secure business flexibility 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
Google	Type	EMADA
	Date	Feb 27, 2019–Mar 31, 2025 (extended)
	Purpose and contents	Licensing agreement for using Google apps (Play Store, YouTube, etc.) in 32 European countries (EEA)
Ericsson	Type	Patent cross-license agreement
	Date	May 7, 2021
	Purpose and contents	Secure business flexibility through mutual patent licensing
Qualcomm	Type	Patent cross-license agreement
	Date	Jul 6, 2022
	Purpose and contents	Secure business flexibility through mutual patent licensing and signing of covenant not to sue
Huawei	Type	Patent cross-license agreement
	Date	Jul 13, 2022

	Purpose and contents	Secure business flexibility through mutual patent licensing
Nokia	Type	Patent cross-license agreement
	Date	Jan 19, 2023
	Purpose and contents	Secure business flexibility through mutual patent licensing

Information that are trade secrets, such as contract amounts, etc., are not stated herein.

## B. Summary of R&D activities and expenditures

The Company is leading the global market by continuously developing creative and innovative products and industry-leading 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 December 31, 2024, the Company's year-to-date R&D expenses were KRW 35,021.5 billion. Among this, KRW 34,998.1 billion was recognized as expenditures, excluding government subsidies and capitalized expenses.

### (R&D expenses)

(KRW mil)

		2024	2023	2022
Total R&D expenditures		35,021,531	28,352,769	24,929,171
(Government subsidies)		-23,389	-13,045	-9,973
R&D expenditures		34,998,142	28,339,724	24,919,198
Accounting	Capitalization of development expenses (intangible asset)	-	-	-
	R&D costs (expenses)	34,998,142	28,339,724	24,919,198
R&D expenses/revenue ratio		11.6%	10.9%	8.2%

Consolidated basis.

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

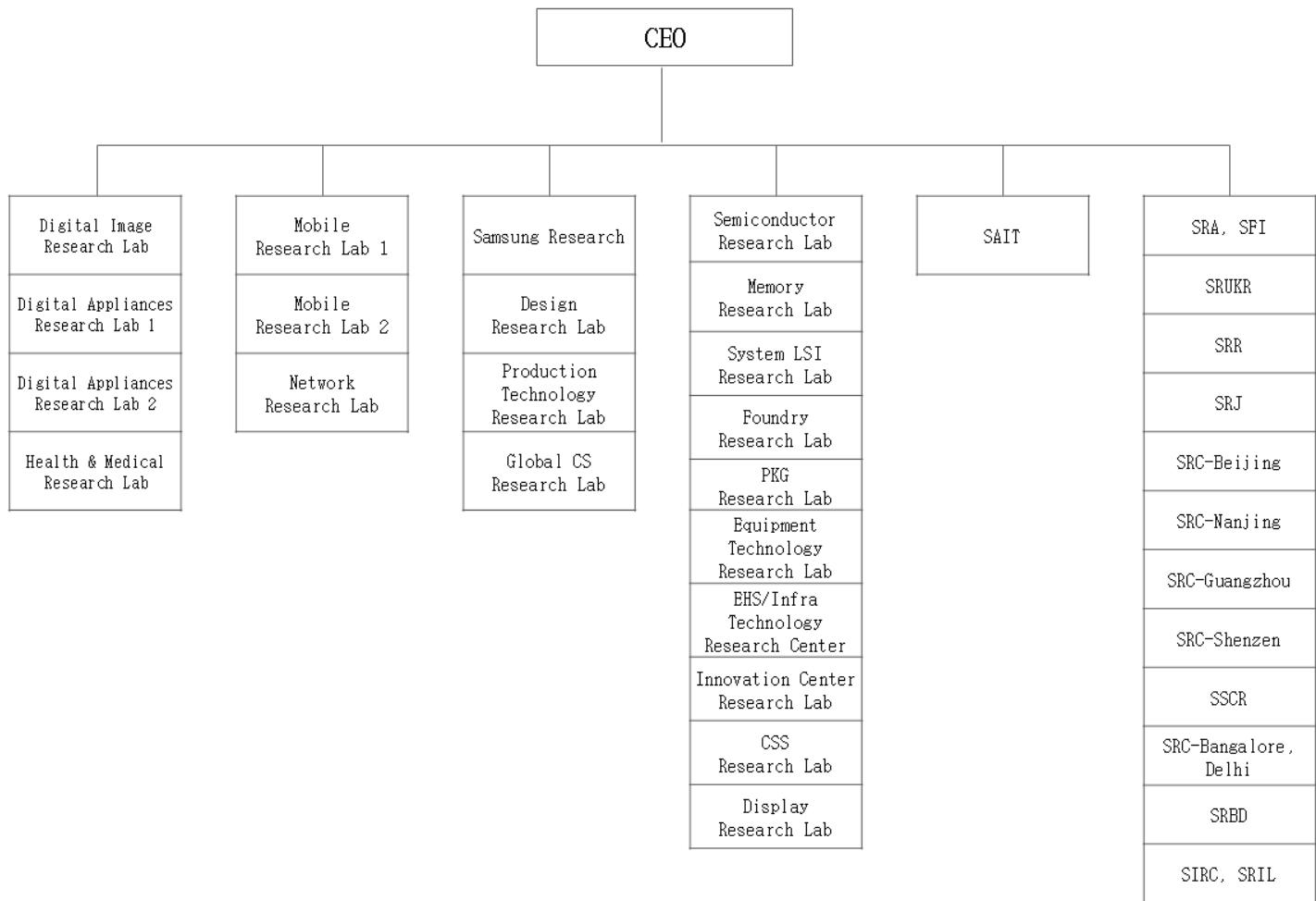
## C. R&D organization and operations

### (Domestic)

The Company's R&D organizations are systematically structured into three levels based on the timing of technological commercialization. R&D teams of business units under each Division develop market-ready technologies with a 1–2 year outlook, while research institutes under each Division, such as Samsung Research and semiconductor research centers, drive development of promising technologies with a mid- to long-term outlook of 3–5 years. Also, Samsung Advanced Institute of Technology (SAIT), our comprehensive research institute, pioneers the development of core technology as seeds for future growth engines. SAIT operates at a company level and offers direction for R&D related to promising growth areas, strengthens technological competitiveness for our main businesses, and performs R&D activities to establish a creative R&D framework.

### (Overseas)

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



As of December 31, 2024.

## D. R&D results

The Company's key R&D results by organization in 2024 are as follows:

DX Division	
Research project	Details
Galaxy Foldable	<ul style="list-style-type: none"> <li>Release of Galaxy Z Fold6</li> <li>Release of Galaxy Z Flip6</li> </ul>
Galaxy S24	<ul style="list-style-type: none"> <li>Release of Galaxy S24 · S24+ · S24 Ultra</li> </ul>
Galaxy A	<ul style="list-style-type: none"> <li>Rollout of A55 5G</li> <li>Release of A35 5G</li> <li>Release of A25 5G</li> <li>Launch of A15 LTE · 5G</li> </ul>
Galaxy Book	<ul style="list-style-type: none"> <li>Release of Galaxy Book4 Ultra</li> <li>Release of Galaxy Book4 Pro 360</li> <li>Release of Galaxy Book4 Pro</li> <li>Release of Galaxy Book4 Edge</li> </ul>

Neo QLED 8K	<ul style="list-style-type: none"> <li>Release of mini LED-based UHD &amp; Slim 8K TV</li> </ul>
Neo QLED 4K	<ul style="list-style-type: none"> <li>Release of mini LED-based TV with 4 series, featuring 7 different sizes</li> </ul>
Refrigerator	<ul style="list-style-type: none"> <li>Launch of Bespoke AI hybrid models with energy-efficient power saving mode with application of Peltier elements</li> <li>Release of Bespoke AI Kimchi Plus with constant temperature function</li> </ul>
Washing machine	<ul style="list-style-type: none"> <li>Launch of Bespoke Grande AI "OneBody Top-Fit" washer/dryer</li> </ul>
Vacuum cleaner	<ul style="list-style-type: none"> <li>Launch of wet &amp; dry robot vacuum cleaner Bespoke AI Steam for Korean market</li> </ul>
RAN S/W package	<ul style="list-style-type: none"> <li>Completed functional test of vRAN-based 5G RedCap energy-saving technology, an industry's first</li> <li>Completed demonstration of quality optimization technology for AI-based 5G base station (AI-RAN Parameter Recommender)</li> </ul>
Base station	<ul style="list-style-type: none"> <li>Development of a new high-power-high-efficiency MMU (base station capable of large-scale data transmission using multiple antennas)</li> </ul>

### DS Division

Research project	Details
Mobile DRAM	<ul style="list-style-type: none"> <li>Achieved verification of industry's fastest LPDDR5X operation</li> </ul>
HBM	<ul style="list-style-type: none"> <li>Developed the industry's first 36GB HBM3E 12H DRAM</li> </ul>
NAND	<ul style="list-style-type: none"> <li>Mass produced the industry's first 9th-generation V-NAND</li> </ul>
Automotive	<ul style="list-style-type: none"> <li>Developed the industry's first 8th generation V-NAND-based SSDs for automobiles</li> </ul>
Image sensor	<ul style="list-style-type: none"> <li>Unveiled HP9, the industry's first 200-megapixel mobile image sensor for telephoto cameras</li> </ul>
Exynos	<ul style="list-style-type: none"> <li>Unveiled Exynos W1000, a wearable SoC based on state-of-the-art technology</li> </ul>

### SDC

Research project	Details
OLED	<ul style="list-style-type: none"> <li>Developed Galaxy S24 AMOLED</li> <li>Deployed the 13.4" Round OLED Display in BMW Mini</li> <li>Release of Surface Pro 10</li> <li>Developed foldable OLED for Galaxy Z Fold6</li> <li>Developed OLED for Google Pixel 9 Pro XL</li> </ul>
QD-Display	<ul style="list-style-type: none"> <li>Developed 31.5"UHD, 27"QHD, QD-OLED</li> </ul>

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 265,410 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 December 31, 2024] (Unit: No. of patents)						
	Korea	US	Europe	China	Japan	Others	Total

Number	62,315	99,070	47,597	28,542	8,836	19,050	265,410
--------	--------	--------	--------	--------	-------	--------	---------

In 2024, the Company invested KRW 35 trillion in R&D and registered 7,804 domestic and 9,228 US patents.

#### (Number of patent registrations per year)

(Unit: No. of patents)

	2024	2023	2022
Korea	7,804	8,908	9,136
US	9,228	8,958	8,500

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 licensing agreements with Google (signed in January 2014), Ericsson (May 2021), Qualcomm (July 2022), Huawei (July 2022), and Nokia (January 2023) through which the Company has secured an extensive patent protection in mainstay businesses as well as in the fields of new businesses.

The Company has also been focusing on securing design patents to protect its original design applied to smartphones and smart TVs. In 2024, the Company acquired 460 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 (e.g., EU WEEE Directive)
2. limit on the use of harmful substances (e.g., EU RoHS Directive, REACH Regulation)
3. regulation on energy efficiency (e.g., 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 Carbon Neutrality and Green Growth for Coping with Climate Crisis
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)**

According to Article 27 (Greenhouse Gas Target Control of Controlled Emitter) of the Framework Act on Carbon Neutrality and Green Growth for Coping with Climate Crisis, the Company falls under the category of “controlled emitter,” which is an entity designated for greenhouse gas target management. Therefore, in accordance with Article 27 (3) of the above mentioned Act and Article 24 (Reporting and Verification of Amounts of Emissions) of the Act on the Allocation and Trading of Greenhouse-gas Emission Permits, the Company’s greenhouse gas emissions and energy usage, verified by a third-party, have been reported since May 2011 to the relevant authorities and opened to stakeholders. The reported amount of domestic greenhouse gas emission and energy use are provided below:

	2024	2023	2022
Greenhouse gas (tCO <sub>2</sub> -eq)	18,070,212	17,337,196	19,285,537
Energy (TJ)	326,800	301,616	290,024

Amounts include those reported by HQ and subsidiaries to the government

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, etc. 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**

##### **1) TV Industry**

The TV industry has produced continual innovations in picture quality. The black-and-white TV was first developed in 1926 and the color TV in 1954. Further developments in the industry led to the creation of flat panel TVs (LCD), Smart TVs, super-large TVs (QLED/OLED/Neo QLED/8K), Micro LED, and more.

TVs incorporate technologies such as chip design, circuit development, image/signal processing, and AI picture quality improvement as well as operating systems and various software to ensure smooth operation of platforms and applications. With the rapid advancement of AI technology, users can search for information about products airing on TVs in real-time or receive recommendations for related content. Furthermore, AI enables the creation of artistic images based on individual preferences, as well as device control through conversational interfaces.

The TV industry is competing fiercely to achieve the highest picture quality by integrating technologies such as Micro LED, Neo QLED and OLED. The TV market, previously dominated by 55- to 65-inch models, is now driven by the growth of super-large 85-, 98-, 100-, and 115-inch models, going beyond the previous 75- to 83-inch range and fueling overall market expansion.

Surpassing the previous 4K standard, 8K TVs are opening new markets, and TVs are now implementing technologies capable of automatically upscaling HD and FHD to higher levels.

TVs are transforming into a futuristic digital appliance as the industry adopts AI technologies. Firms, working to incorporate AI technologies into TVs, are adopting AI SoCs, optimizing picture and sound quality, and further strengthen the AI function that upscales content from lower definitions. With such technologies, TVs are able to connect digital appliances and conduct real-time monitoring while also offering new services such as maximizing energy efficiency providing an emergency alarm system.

Meanwhile, the way people perceive TV has changed dramatically following the COVID pandemic. Customers use their TVs to not only watch movies, news, or other traditional content, but also to download and enjoy images of artwork that feature in museums throughout the world. Moreover, using TVs for gaming, health-care, online meetings and education services, and other services is also gaining positive feedback from users. We release Lifestyle product lines every year that emphasize design, connectivity, and convenient, flexible installability to meet the evolving needs of customer who value individuality in this rapidly expanding niche market.

## 2) Mobile phone industry

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 devices that used 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 commonplace. In early 2019, the fifth generation mobile communication service, known as 5G, was launched in Korea and the US and has since been commercialized globally. The sales of 5G smartphones increased from 270 million units in 2020 to 870 million units in 2024, and the spread of 5G communications has accelerated the ecosystem of 5G convergent services, including AI, XR, and the autonomous vehicle and infrastructure industry. (TechInsights, February 2025)

The smartphone industry has grown significantly since 2007. In 2024, the smartphone portion of total HHP sales volume was approximately 85%, and the feature phone portion of the total was approximately 15%, with the latter related to demand in emerging markets. Also, as the smartphone market shows high saturation, the importance of competitiveness of the overall experience based on software for applications, UX, games, media, digital wallets, AI, security, etc., is rising alongside that of competitive hardware, which includes high-performance APs, high-definition displays, foldable form factors, multiple cameras, sensors, waterproof & dustproof features, biometric recognition, and more. (TechInsights, February 2025)

## Market condition

### 1) TV Industry

TV demand slightly decreased from 203.28 million units in 2022 to 201.39 million units in 2023 due to impacts from weak consumer sentiment caused by global uncertainties. In 2024, with growing expectations for a demand increase from sport events such as Paris 2024 Olympics, volume is forecast to grow by 3.7% year on year, resulting in a projected annual volume of approximately 208.83 million units (Omdia, February 2025).

#### TV market share

Product	2024	2023	2022
TV	28.3%	30.1%	29.7%

Global market share in revenue; from Omdia

## 2) Mobile industry

The smartphone market is expected to increase from 1.15 billion units in 2023 to 1.22 billion units in 2024 due to strengthened consumer sentiment backed by an economic recovery and increased demand for foldable phones. In 2025, even though we expect to see greater uncertainties in the global economic environment, the smartphone market, backed by increased demand of AI smartphones, is forecast to grow slightly and reach 1.24 billion units. The tablet market grew from 140 million units in 2023 to 150 million in 2024, and it is anticipated to grow even further and reach 160 million units in 2025. (TechInsights, February 2025)

### Smartphone market share

Product	2024	2023	2022
Smartphone	18.3%	19.7%	21.7%

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

## Business condition

### 1) TV Industry

We have maintained the number one position in global TV sales for the 19th consecutive year, a streak that began in 2006. Throughout this time, we consistently strengthened our marketing and sales strategies, resulting in a doubling of our market share from 14.2% at end-2006 to approximately 28% at end-2024. Furthermore, we have proactively launched innovative, premium products that align with the evolving preferences of our global consumers and distribution partners, fortifying our reputation as a trendsetter in the TV market.

In the TV market this year, super big TVs of 75 inches or more and premium TVs priced over USD 1,500 are driving market growth. The demand for such products are especially increasing in North America, Europe, Korea, Southeast Asia, and China, but intensifying competition and ongoing increases in panel prices is pressuring profitability.

However, using product technologies to break through the current challenges, Samsung is incorporating cutting-edge AI technologies into numerous segments, including Neo QLED, OLED, and QLED flagship TVs—with a particular focus on 98-inch super big 8K TVs—as well as Lifestyle TVs and soundbars. Through this, we are significantly widening the technological gap with competitors.

Neo QLED 8K TVs for 2024 feature 8K Upscaling Pro to improve low-resolution content (e.g., SD/HD/Full HD) to 8K levels by using Samsung's semiconductor and AI technologies. We also actively integrate AI technologies for sound quality, enabling TVs to recognize and separate dialogue from background sounds for clearer speaking while delivering immersive 3D sounds that track the movement of objects.

Furthermore, TVs featuring AI can conveniently connect to various home appliances such as smartphones and soundbars, offering new value and user experiences beyond traditional TV services. AI-enabled TVs can also adjust and optimize energy usage of connected appliances; and they can also monitor its surroundings with sensors and cameras and notify users who are out of the house. At the same time, all personal information and device security are thoroughly protected by Knox, Samsung's security solution.

With adoption of AI core technologies, we have further established product lineups that are needed to keep expanding the super-big TV market. To lead market growth in 90-inch and over TVs, we expanded our 98-inch lineup to include UHD models, following Neo QLED 8K/4K, QLED. We also strengthened our 85-inch Neo QLED, 83-inch OLED, and 77-inch OLED lineups for the global market.

Moreover, we are also extending our future-technology, next-generation micro LED TVs to 114-inch products, following the 89-inch and 101-inch TVs, while commercializing AI-driven text-to-speech technology that converts captions to voice in real time using optical character recognition. In addition, we enhanced Relumino Mode, which amplifies contrast, brightness, and contours for greater accessibility. Through this, we are giving our best efforts to offer TVs for all.

### 2) Mobile industry

SEC has always been at the forefront of the smartphone market, and we led the global market in shipments for fourteen consecutive years. (TechInsights, February 2025).

To solidify our status in the overall mobile market, we continue to bolster the competitiveness of our products, including tablets, wearables (smart watches, wireless earphones, etc.), and accessories as well as our content and services businesses, such as digital health and digital wallet.

For smartphones, we establish optimal portfolios for each region, accounting for varying market conditions and the competitive environment, to offer 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 functions supported by generative AI, such as searches, real-time interpretation/translation, automatic summarization, and photo editing, Dynamic AMOLED 2X (120Hz) displays, digital key and content sharing using UWB (ultra wideband), ultrasonic fingerprint-on-display (FoD), and cameras specialized for night mode and 8K video recording.

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 Z Fold, enabled by foldable displays. In 2020, we launched Galaxy Z Flip, a vertically folding smartphone. The Z Flip series, characterized by its iconic design and high portability, has played a significant role in boosting preference for Galaxy products among women and the younger generation. We continued enhancing unique foldable experiences by leveraging our technology leadership and focusing usability centering on customer values. Thus, we subsequently released the fifth and sixth generations of the Galaxy Z series, continuing to lead the foldable market.

In January 2024, Samsung unveiled the Galaxy S24 series featuring the introduction of Samsung's Galaxy AI, a technology that offers a whole new experience by transforming how users interact with the world and provides boundless potential through functions such as enhanced search experiences, creative photo editing, real-time translation, and convenient text summarization.

In July 2024, we launched the Galaxy Z Fold6 and Galaxy Z Flip6, offering a new level of foldable productivity with Galaxy AI features optimized for large displays and foldable form factors. In addition to the outstanding portability as the thinnest and lightest models among the Galaxy Z series to date, we further enhanced performance and durability to bring product completeness to an even higher level.

In addition, we provide richer mobile experiences for our smartphone users with Galaxy Ecosystem products, including tablets that help boost productivity via virtual meetings, multitasking, and note-taking with large-screen display and S Pen; Smart watches that offer advanced fitness and wellness features with biometric sensor technology; smart rings that provide customized health information with comfortable wearability; and wireless earbuds that deliver rich, superior sound experiences.

Not content to dwell on our achievements in hardware, we have been focusing on delivering practical and helpful services such as Samsung Wallet (formerly Samsung Pay) and Samsung Health. We are evolving Samsung Wallet into a service that can replace physical wallets through functionalities that can be used for ID cards, tickets, and more, going well beyond a mere payment system. Samsung Health will strengthen its position as a comprehensive health management platform through new form factors and AI features.

We continue to innovate eco-friendly technologies, including those aimed at expanding adoption of recycled materials in our products. A prime example is the adoption of repurposed materials from discarded fishing nets in various projects, starting from the Galaxy S22 series. The Galaxy S24 series incorporates recycled cobalt and rare earth elements, while the Galaxy Z Fold6 and Galaxy Z Filp6 models also use recycled gold and copper.

In addition, Samsung in May 2023 introduced a self-repair program, and we are expanding the program's target models and countries, adding to our efforts to preserve the environment by minimizing e-waste.

Going forward, we will use our industry-leading R&D capabilities to keep providing our customers with new values via continual technological innovations and our thorough preparations for the future.

## 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 any stored 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 APs for smartphones and tablets, and image sensors.

The Foundry Business makes customized semiconductors for fabless 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. Many integrated device manufacturers have transitioned to fabless players due to the advancement of semiconductor processing technologies and an increased investment burden. Consequently, only a few companies (approximately five) with large capex dominate the overall foundry market.

### Market condition

In the memory market in the fourth quarter, mobile and PC customers scaled up their inventory adjustments, but the demand focusing on HBM and server DRAM remained strong with major datacenter and tech companies continuing to invest in AI. However, server SSD demand was partially impacted by postponed projects at some datacenter customers. Under this situation, we focused on expanding sales by targeting the demand momentum for HBM and high-density DDR5.

In the 1Q25 memory market, for mobile and PC applications, we expect customers to continue with inventory adjustments throughout the quarter. Demand for AI is likely to continue its momentum in server, but that for datacenter and OEM customers seems poised to change, depending on the GPU supply situation. In HBM, demand is likely to stay volatile under effects of export controls on AI chips. In this situation, we continue to shift our business portfolio toward high-value-added products and accelerate the migrations to cutting-edge nodes to respond to the demand for high-density/high-performance products. Based on such efforts, we will focus on addressing demand for server DDR5, PC/mobile LPDDR5x, and server QLC SSD.

In the Foundry market in 2024, despite persistently weak demand due to a delayed market recovery in mobile and PC applications, we saw continued growth mainly backed by HPC (high-performance computing) and AI applications, which use advanced nodes.

Despite concerns about slowed growth momentum in 2025 due to customer inventory adjustments, we anticipate achieving double-digit growth, driven mainly by the advanced-node market as demand in HPC/AI applications should remain strong, similar to trends seen in 2024.

#### DRAM market share

Product	2024	2023	2022
DRAM	41.5%	42.2%	43.1%

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

### Business condition

For the memory business in the first quarter, AI demand momentum for servers remains strong. However, we also both risks and opportunities in supply constraints for new GPUs, increased inventory adjustments by some customers, and geopolitical issues. For PC and mobile, despite expectations for improvements in demand, overall market demand is expected to decline due to weakened consumer sentiment and ongoing inventory adjustments. Our flexible production and product mix strategies will focus on legacy products aligned with product/application demand. Also, we are accelerating migration to

advanced technology to meet the increasing demand for high-value-added products such as HBM and DDR5. In this environment, we will actively respond to customer needs for server DDR5 and high-density server QLC SSDs, to name a few.

In System LSI, demand has declined slightly amid end-year inventory normalization at major customers. Although macroeconomic uncertainties in 2025 may weigh on growth, we will mitigate effects by expanding our high-value-added product portfolio and diversifying applications, leveraging the strong performance in premium markets driven by on-device AI. In the SOC business, strong smartphone sales of the Galaxy S24/FE and A series (A55/35) have led to sales to expand. Moreover, we are increasing the supply of high-spec products based on on-device AI while laying the groundwork for future growth by securing a 2-nano Exynos sample. For image sensors, we are strengthening the 200-megapixel market by enhancing wide-angle and zoom functionalities and showcasing the superiority of new image sensor products used in smartphones outside flagship models, which will help expand our market share. Additionally, in the automotive sensor market, orders are rising for new high-resolution sensors from major global automakers. For smartphone OLED mDDIs, we maintain a high market share by leveraging our technological competitiveness and supplying global top-tier customers. In pDDIs, we have secured a foundation for mid- to long-term growth by winning projects at major clients. The Power segment continues to grow as we expand applications in new mobile-related projects and enhance our product portfolio for memory applications. In Security, we expect growth through the timely commercialization of high-spec products tailored to the increasing security needs for smartphones and other consumer applications.

In the Foundry business, we are realizing strategies in line with the changing market for each technology and application while strengthening the competitiveness of our technological development, manufacturing, and business capabilities. For advanced technologies, we saw an increase in mobile and HPC demand based on the stable yields in 4nm technology. Preparations are underway to mass produce mobile-use products in the first half of 2025, leveraging our expertise and experience in ramping up GAA 3nm technology in 2022. For mature nodes, we are concentrating on expanding applications and diversifying our portfolio through investments in and the development of specialty processes, including for RF and Automotive, to simultaneously improve profitability and enhance node longevity. We will expand our business opportunities in line with the evolving markets by enhancing collaboration with customers and strengthening competitiveness across the board, including development, orders, production, and supply.

## 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), QD-OLED (quantum dot organic light emitting diode), 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 increasingly adopted into variable applications in foldables, IT (tablet/notebook PCs), automotives, etc. The OLED market is forecast to keep growing. QD-OLED, a self-emissive display with quantum dots (semiconductor particles a few nanometers in size) in the panel to maximize color gamut and viewing angle, is capturing attention under expectations that it will lead the premium TV and monitor markets.

### Market condition

The market for smartphone display panels in 2024 is anticipated to grow to 1.55 billion units, a 1.44 billion units year-on-year increase. For smartphone-use OLED panels, the market is forecast to reach 0.78 billion units in 2024, up from 0.61 billion units in 2023, and the OLED portion of smartphone panels is expected to increase to 50.7% in 2024 from 42.7% in 2023 (Omdia, January 2025).

The market for large display panels is expected to grow to 0.87 billion units in 2024 from 0.81 billion units in 2023 (Omdia, December 2024).

#### Smartphone panel market share

Product	2024	2023	2022
Smartphone panels	41.3%	50.1%	56.7%

Global market share in revenue; figure for 2024 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 IT (tablet/Note PC) products with differentiated technologies and designs.

In 2024, demand for mobile panels for smartphones and other IT products recovered slightly, and the OLED penetration rate continued to rise. With competition intensifying among panel makers, we continued to develop our differentiated technologies—such as power efficiency, high definition, and design—thus strengthening our competitive advantages and promoting the expansion of sales.

Furthermore, we are diversifying our mobile panel business—which concentrates on smartphones—by ramping up investment in 8.6G IT OLED lines in order to expand into IT, AUTO, gaming, and auto products and further solidify our business leadership.

For large panel business, we centered capacity on premium TVs and monitors and strengthen business competitiveness by enhancing stability by improving yield and reducing losses.

#### Harman

#### Industry overview

Harman competes in the automotive and lifestyle audio industries. The automotive component business accounts for the largest portion of Harman's business, and it operates business in areas such as digital cockpits, car audio, and telematics.

Consumers view vehicles not only as a mode of transportation, but also as an opportunity to enjoy in-cabin experiences. In response to such consumer needs, the market is shifting toward software defined vehicles (SDVs) that can be upgraded with software, similar to IT products. Automakers are working to introduce a centralized automotive architecture and strengthen software functionality, which has led to numerous innovations. As a result, the products supplied by automotive component manufacturers are undergoing rapid technological changes, and competition in this area seems poised to intensify. Accordingly, Harman will strengthen its software technology capabilities to align with the shift to SDVs, nurture core automotive components for in-cabin experiences, and develop new products with high growth potential such as AR HUD, display and driver monitoring. Meanwhile, we are focused on offering differentiated user experiences that increase convenience by applying Samsung's software and service capabilities to vehicles.

The Lifestyle audio business has two segments: consumer audio and professional audio solutions. Consumer audio products (e.g., true wireless stereo, portable speakers, headphones) were formerly confined to audio playback devices, but thanks to the recent adoption of wireless technologies and increasing integration of AI, they are transforming into technology-centric IT devices. Such changes have brought IT companies into the consumer audio market, and they are now competing with traditional audio-focused firms that possess sound engineering technologies.

The consumer audio market is expected to see high growth in segments such as TWS headphones, home audio products, and gaming headphones, and consumer desire is continuing to grow for premium audio experiences such as high-quality and lossless sound. In response to such trends, Harman is enhancing its business capabilities and competitiveness in high-growth areas and continuously launching new products to address market demands. To cater to consumer needs for premium audio experiences, Harman in 4Q23 acquired Roon Labs LLC, a US company that specializes in high-quality and lossless audio playback technology, offering our consumers with high quality audio experiences. We plan to differentiate our lineup and strengthen market competitiveness by integrating Roon's technology into products in other divisions.

## Market condition

Despite persistent economic uncertainties, such as rising raw material prices caused by recent geopolitical issues in Europe and the Middle East coupled with intensifying U.S-China trade tensions, a majority of the instabilities in the global automotive supply chain have been resolved. Moreover, it is anticipated that high interest rates and inflation are likely to gradually normalize. Against this backdrop, global automobile production in 2025 is projected to stay similar year-on-year. (S&P Global Light Vehicle Production Forecast, December 2024).

Digital cockpit market share

Product	2024	2023	2022
Digital cockpits	12.5%	16.5%	17.9%

Digital cockpits refer to the digital automotive component which enables safe driving environment via infotainment system, etc.

Figures based on the data (by value) from TechInsights

## Business condition

Harman is positioned to stay at the forefront in the digital cockpit and car audio markets, which are key markets for in-cabin experiences in the automotive component industry. To fortify Harman's position, we will continue to actively address the ongoing IT transformation in vehicles by integrating our technologies, including wireless communication and display, into Harman's automotive business. Amid the shift toward software-defined vehicles, Harman remains committed to elevating customer in-cabin experiences by consistently pursuing the development of distinctive, innovative technologies.

Through its proprietary sound engineering capabilities and multi-brand strategies targeting diverse consumer groups, Harman has expanded its brand recognition and influence as professional audio company among consumers and audiophiles alike. We will further fortify our reputation and position in the audio industry by enhancing collaboration with other divisions and launching new products.

## D. Financial summary, by organization

In 2024 by organization, DX accounted for 58.1% of revenue with reported revenue of KRW 174,887.7 billion; DS contributed approximately 36.9% with revenue of KRW 111,066.0 billion; SDC was responsible for 9.7% with revenue of KRW 29,157.8 billion; and Harman contributed 4.7% with revenue of KRW 14,274.9 billion.

In 2024, DX accounted for an operating profit of KRW 12,439.9 billion; DS with KRW 15,094.5 billion; SDC with KRW 3,733.4 billion; and Harman with KRW 1,307.6 billion.

(KRW 100 mil)

Organization	Classification	2024		2023		2022	
		Amount	Portion of corresponding total	Amount	Portion of corresponding total	Amount	Portion of corresponding total
DX Division	Revenue	1,748,877	58.1%	1,699,923	65.7%	1,824,897	60.4%
	Operating profit	124,399	38.0%	143,847	219.0%	127,461	29.4%
	Total assets	2,596,713	36.2%	2,342,534	37.2%	2,279,669	38.6%
DS Division	Revenue	1,110,660	36.9%	665,945	25.7%	984,553	32.6%
	Operating profit	150,945	46.1%	-148,795	-226.6%	238,158	54.9%
	Total assets	3,430,454	47.8%	2,871,411	45.6%	2,620,558	44.3%
SDC	Revenue	291,578	9.7%	309,754	12.0%	343,826	11.4%
	Operating profit	37,334	11.4%	55,665	84.8%	59,530	13.7%
	Total assets	821,980	11.4%	792,752	12.6%	737,798	12.5%
Harman	Revenue	142,749	4.7%	143,885	5.6%	132,137	4.4%
	Operating profit	13,076	4.0%	11,737	17.9%	8,805	2.0%
	Total assets	209,347	2.9%	179,566	2.9%	171,023	2.9%

Includes inter-divisional transactions.

### 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-revenue 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-revenue ratio, pre-tax profit, etc.).

### III Financial Affairs

#### 1. Condensed Financial Statements

##### A. Consolidated financial statements

Classification	56th	55th	54th
	December 31, 2024	December 31, 2023	December 31, 2022
<b>Current assets</b>	227,062,266	195,936,557	218,470,581
- Cash and cash equivalents	53,705,579	69,080,893	49,680,710
- Short-term financial instruments	58,909,334	22,690,924	65,102,886
- Other current financial assets	36,877	635,393	443,690
- Trade receivables	43,623,073	36,647,393	35,721,563
- Inventories	51,754,865	51,625,874	52,187,866
- Others	19,032,538	15,256,080	15,333,866
<b>Non-current assets</b>	287,469,682	259,969,423	229,953,926
- Other non-current financial assets	11,756,681	8,912,691	12,802,480
- Investment in associates and joint ventures	12,592,117	11,767,444	10,893,869
- Property, plant, and equipment	205,945,209	187,256,262	168,045,388
- Intangible assets	23,738,566	22,741,862	20,217,754
- Others	33,437,109	29,291,164	17,994,435
<b>Total assets</b>	514,531,948	455,905,980	448,424,507
<b>Current liabilities</b>	93,326,299	75,719,452	78,344,852
<b>Non-current liabilities</b>	19,013,579	16,508,663	15,330,051
<b>Total liabilities</b>	112,339,878	92,228,115	93,674,903
<b>Equity attributable to owners of the parent company</b>	391,687,603	353,233,775	345,186,142
- Capital stock	897,514	897,514	897,514
- Share premium	4,403,893	4,403,893	4,403,893
- Retained earnings	370,513,188	346,652,238	337,946,407
- Others	15,873,008	1,280,130	1,938,328
<b>Non-controlling interests</b>	10,504,467	10,444,090	9,563,462
<b>Total Equity</b>	402,192,070	363,677,865	354,749,604
	Jan–Dec 2024	Jan–Dec 2023	Jan–Dec 2022
<b>Revenue</b>	300,870,903	258,935,494	302,231,360
<b>Operating profit</b>	32,725,961	6,566,976	43,376,630

<b>Profit for the period</b>	34,451,351	15,487,100	55,654,077
- Owners of the parent company	33,621,363	14,473,401	54,730,018
- Non-controlling interests	829,988	1,013,699	924,059
<b>Basic earnings per share (KRW)</b>	4,950	2,131	8,057
<b>Diluted earnings per share (KRW)</b>	4,950	2,131	8,057
Number of companies subject to consolidation accounting	229	233	233

Data shown in conformity with K-IFRS.

Please refer to the footnotes of the 54th–56th Consolidated Audit Report for the calculation of basic earnings per share (ordinary shares).

## B. Separate financial statements

(KRW mil)

Classification	56th	55th	54th
	December 31, 2024	December 31, 2023	December 31, 2022
<b>Current assets</b>	82,320,322	68,548,442	59,062,658
- Cash and cash equivalents	1,653,766	6,061,451	3,921,593
- Short-term financial instruments	10,187,991	50,071	137
- Trade receivables	33,840,357	27,363,016	20,503,223
- Inventories	29,154,115	29,338,151	27,990,007
- Others	7,484,093	5,735,753	6,647,698
<b>Non-current assets</b>	242,645,805	228,308,847	201,021,092
- Other non-current financial assets	2,176,346	1,854,504	1,364,608
- Subsidiary, associate, and joint venture investments	57,427,196	57,392,438	57,397,249
- Property, plant and equipment	151,446,870	140,579,161	123,266,986
- Intangible assets	10,496,956	10,440,211	8,561,424
- Others	21,098,437	18,042,533	10,430,825
<b>Total assets</b>	324,966,127	296,857,289	260,083,750
<b>Current liabilities</b>	80,157,976	41,775,101	46,086,047
<b>Non-current liabilities</b>	8,411,494	30,294,414	4,581,512
<b>Total liabilities</b>	88,569,470	72,069,515	50,667,559
- Capital stock	897,514	897,514	897,514
- Share premium	4,403,893	4,403,893	4,403,893
- Retained earnings	233,734,316	219,963,351	204,388,016
- Others	-2,639,066	-476,984	-273,232
<b>Total Equity</b>	236,396,657	224,787,774	209,416,191

Evaluation method of subsidiary, associate, and joint venture investment securities	Cost methods	Cost methods	Cost methods
	Jan-Dec 2024	Jan–Dec 2023	Jan–Dec 2022
<b>Revenue</b>	209,052,241	170,374,090	211,867,483
<b>Operating profit</b>	12,361,034	-11,526,297	25,319,329
<b>Profit for the period</b>	23,582,565	25,397,099	25,418,778
<b>Basic earnings per share (KRW)</b>	3,472	3,739	3,742
<b>Diluted earnings per share (KRW)</b>	3,472	3,739	3,742

Data shown in conformity with K-IFRS.

Please refer to the footnotes of the 54th–56th Audit Report 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 2.18))

	Notes	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
		KRW	KRW	USD	USD
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	4, 28	53,705,579	69,080,893	39,399,770	50,679,489
Short-term financial instruments	4, 28	58,909,334	22,690,924	43,217,376	16,646,635
Short-term financial assets at amortized cost	4, 28	-	608,281	-	446,250
Short-term financial assets at fair value through profit or loss	4, 6, 28	36,877	27,112	27,054	19,890
Trade receivables	4, 5, 7, 28	43,623,073	36,647,393	32,002,989	26,885,454
Non-trade receivables	4, 7, 28	9,622,974	6,633,248	7,059,657	4,866,318
Prepaid expenses		3,362,824	3,366,130	2,467,053	2,469,478
Inventories	8	51,754,865	51,625,874	37,968,677	37,874,046
Other current assets	4, 28	6,046,740	5,038,838	4,436,043	3,696,620
Assets held-for-sale	33	-	217,864	-	159,831
		<b>227,062,266</b>	<b>195,936,557</b>	<b>166,578,619</b>	<b>143,744,011</b>
<b>Non-current assets</b>					
Financial assets at fair value through other comprehensive income	4, 6, 28	10,580,932	7,481,297	7,762,439	5,488,469
Financial assets at fair value through profit or loss	4, 6, 28	1,175,749	1,431,394	862,559	1,050,107
Investments in associates and joint ventures	9	12,592,117	11,767,444	9,237,895	8,632,894

Property, plant and equipment	10	205,945,209	187,256,262	151,086,611	137,375,927
Intangible assets	11	23,738,566	22,741,862	17,415,212	16,684,005
Net defined benefit assets	14	3,089,571	4,905,219	2,266,587	3,598,593
Deferred income tax assets	25	14,236,468	10,211,797	10,444,233	7,491,632
Other non-current assets	4, 7, 28	16,111,070	14,174,148	11,819,488	10,398,513
		<b>287,469,682</b>	<b>259,969,423</b>	<b>210,895,024</b>	<b>190,720,140</b>
<b>Total assets</b>		<b>514,531,948</b>	<b>455,905,980</b>	<b>377,473,643</b>	<b>334,464,151</b>

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 2.18))

	Notes	December 31,		December 31,	
		2024	2023	2024	2023
		KRW	KRW	USD	USD
<b>Liabilities and Equity</b>					
<b>Current liabilities</b>					
Trade payables	4, 28	12,370,177	11,319,824	9,075,075	8,304,509
Short-term borrowings	4, 5, 12, 28	13,172,504	7,114,601	9,663,682	5,219,451
Other payables	4, 28	18,547,365	15,324,119	13,606,816	11,242,161
Advances received	17	1,841,420	1,492,602	1,350,912	1,095,011
Withholdings	4, 28	991,812	892,441	727,618	654,717
Accrued expenses	4, 17, 28	29,613,258	26,013,273	21,725,035	19,083,995
Current income tax liabilities		4,340,171	3,358,715	3,184,059	2,464,038

Current portion of long-term liabilities	4, 12, 13, 28	2,207,290	1,308,875	1,619,324	960,224
Provisions	15	8,216,469	6,524,876	6,027,809	4,786,814
Other current liabilities	4, 17, 28	2,025,833	2,308,472	1,486,202	1,693,553
Liabilities held-for-sale	33	-	61,654	-	45,231
		<b>93,326,299</b>	<b>75,719,452</b>	<b>68,466,532</b>	<b>55,549,704</b>
<b>Non-current liabilities</b>					
Debentures	4, 13, 28	14,530	537,618	10,660	394,410
Long-term borrowings	4, 12, 28	3,935,860	3,724,850	2,887,446	2,732,644
Long-term other payables	4, 28	5,510,455	5,488,283	4,042,609	4,026,343
Net defined benefit liabilities	14	521,410	456,557	382,520	334,942
Deferred income tax liabilities	25	528,231	620,549	387,524	455,250
Long-term provisions	15	3,120,044	2,878,450	2,288,943	2,111,704
Other non-current liabilities	4, 17, 28	5,383,049	2,802,356	3,949,141	2,055,879
		<b>19,013,579</b>	<b>16,508,663</b>	<b>13,948,843</b>	<b>12,111,172</b>
<b>Total liabilities</b>		<b>112,339,878</b>	<b>92,228,115</b>	<b>82,415,375</b>	<b>67,660,876</b>

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 2.18))

	Notes	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
		KRW	KRW	USD	USD
<b>Equity attributable to owners of the parent company</b>					
Preference shares	18	119,467	119,467	87,644	87,644
Ordinary shares	18	778,047	778,047	570,795	570,795
Share premium		4,403,893	4,403,893	3,230,807	3,230,807
Retained earnings	19	370,513,188	346,652,238	271,817,840	254,312,844
Other components of equity	20, 33	15,873,008	1,280,130	11,644,840	939,136
		<b>391,687,603</b>	<b>353,233,775</b>	<b>287,351,926</b>	<b>259,141,226</b>
Non-controlling interests	31	10,504,467	10,444,090	7,706,342	7,662,049
<b>Total equity</b>		<b>402,192,070</b>	<b>363,677,865</b>	<b>295,058,268</b>	<b>266,803,275</b>
<b>Total liabilities and equity</b>		<b>514,531,948</b>	<b>455,905,980</b>	<b>377,473,643</b>	<b>334,464,151</b>

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 2.18))*

	Notes	For the years ended December 31,			
	2024	2023	2024	2023	
	KRW	KRW	USD	USD	
<b>Revenue</b>	29	300,870,903	258,935,494	220,726,499	189,961,623
<b>Cost of sales</b>	21	186,562,268	180,388,580	136,866,795	132,337,621
<b>Gross profit</b>		<b>114,308,635</b>	<b>78,546,914</b>	<b>83,859,704</b>	<b>57,624,002</b>
Selling and administrative expenses	21, 22	81,582,674	71,979,938	59,851,112	52,806,302
<b>Operating profit</b>	29	<b>32,725,961</b>	<b>6,566,976</b>	<b>24,008,592</b>	<b>4,817,700</b>
Other non-operating income	23	1,960,338	1,180,448	1,438,154	866,006
Other non-operating expense	23	1,625,229	1,083,327	1,192,309	794,757
Share of net profit of associates and joint ventures	9	751,044	887,550	550,985	651,129
Financial income	24	16,703,304	16,100,148	12,253,966	11,811,476
Financial expense	24	12,985,684	12,645,530	9,526,626	9,277,080
<b>Profit before income tax</b>		<b>37,529,734</b>	<b>11,006,265</b>	<b>27,532,762</b>	<b>8,074,474</b>
Income tax expense (benefit)	25	3,078,383	(4,480,835)	2,258,380	(3,287,254)
<b>Profit for the year</b>		<b>34,451,351</b>	<b>15,487,100</b>	<b>25,274,382</b>	<b>11,361,728</b>
<b>Profit attributable to</b>					
Owners of the parent company		33,621,363	14,473,401	24,665,482	10,618,053
Non-controlling interests		829,988	1,013,699	608,900	743,675
<b>Earnings per share</b>					
<i>(in Korean won, in US dollars)</i>	26				
- Basic		4,950	2,131	3.63	1.56
- Diluted		4,950	2,131	3.63	1.56

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 2.18))

	Notes	2024 KRW	2023 KRW	2024 USD	2023 USD
<b>For the years ended December 31,</b>					
<b>Profit for the year</b>		<b>34,451,351</b>	<b>15,487,100</b>	<b>25,274,382</b>	<b>11,361,728</b>
<b>Other comprehensive income</b>					
<b>Items that will not be reclassified subsequently to profit or loss:</b>					
Gain on valuation of financial assets at fair value through other comprehensive income, net of tax	6, 20	2,300,166	1,481,091	1,687,460	1,086,566
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	9, 20	(71,581)	13,150	(52,514)	9,647
Remeasurement of net defined benefit liabilities (assets), net of tax	14, 20	(766,078)	(828,298)	(562,014)	(607,659)
<b>Items that may be reclassified subsequently to profit or loss:</b>					
Share of other comprehensive income of associates and joint ventures, net of tax	9, 20	305,327	61,962	223,996	45,457
Foreign currency translation differences for foreign operations, net of tax	20	15,116,099	2,621,479	11,089,552	1,923,183
Gain (loss) on valuation of cash flow hedge derivatives	20	(38,946)	927	(28,572)	679
<b>Other comprehensive income for the year, net of tax</b>		<b>16,844,987</b>	<b>3,350,311</b>	<b>12,357,908</b>	<b>2,457,873</b>
<b>Total comprehensive income for the year</b>		<b>51,296,338</b>	<b>18,837,411</b>	<b>37,632,290</b>	<b>13,819,601</b>
<b>Comprehensive income attributable to:</b>					
Owners of the parent company		50,048,199	17,845,661	36,716,624	13,092,028
Non-controlling interests		1,248,139	991,750	915,666	727,573

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)*

For the year ended December 31, 2024	Notes	Prefere nce shares	Ordina ry shares	Share premiu m	Retain ed earnin gs	Other compo nents of equity	Equity attribut able to owners of the parent compa ny	Non- control ling interest	Total
<b>Balance as of January 1, 2024</b>		<b>119,467</b>	<b>778,04 7</b>	<b>4,403,8 93</b>	<b>346,65 2,238</b>	<b>1,280,1 30</b>	<b>353,23 3,775</b>	<b>10,444, 090</b>	<b>363,677, 865</b>
Profit for the year	-	-	-	-	33,621, 363	-	33,621, 363	829,98 8	34,451,3 51
Gain on valuation of financial assets at fair value through other comprehensive income, net of tax	6, 20	-	-	-	49,024	1,960,8 96	2,009,9 20	290,24 6	2,300,16 6
Share of other comprehensive income (loss) of associates and joint ventures, net of tax	9, 20	-	-	-	-	239,43 1	239,43 1	(5,685)	233,746
Foreign currency translation differences for foreign operations, net of tax	20	-	-	-	-	14,963, 848	14,963, 848	152,25 1	15,116,0 99
Remeasurement of net defined benefit liabilities (assets), net of tax	14, 20	-	-	-	-	(747,41 7)	(747,41 7)	(18,661 )	(766,078)
Loss on valuation of cash flow hedge derivatives	20	-	-	-	-	(38,946 )	(38,946 )	-	(38,946)
<b>Total comprehensive income for the year</b>		-	-	-	<b>33,670, 387</b>	<b>16,377, 812</b>	<b>50,048, 199</b>	<b>1,248,1 39</b>	<b>51,296,3 38</b>
Dividends declared	19	-	-	-	(9,809, 437)	-	(9,809, 437)	(1,102, 625)	(10,912,0 62)
Capital transactions under common control	-	-	-	-	-	-	-	(8,511)	(8,511)

Changes in consolidated entities	-	-	-	-	-	-	(76,626 )	(76,626)
Treasury shares purchased	20	-	-	-	-	(1,811, 775)	(1,811, 775)	- (1,811,77 5)
Others	-	-	-	-	-	26,841	26,841	- 26,841
<b>Total transactions with owners</b>	-	-	-	(9,809, 437)	(1,784, 934)	(11,594, 371)	(1,187, 762)	(12,782,1 33)
<b>Balance as of December 31,</b>	<b>119,467</b>	<b>778,04 7</b>	<b>4,403,8 93</b>	<b>370,51 3,188</b>	<b>15,873, 008</b>	<b>391,68 7,603</b>	<b>10,504, 467</b>	<b>402,192, 070</b>

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 2.18))

For the year ended December 31, 2024	Note s	Prefere nce shares	Ordina ry shares	Share premiu m	Retaine d earning s	Other compon ents of equity	Equity attribut able to owners of the parent compan y	Non-controll ing interest	Total
<b>Balance as of January 1, 2024</b>		<b>87,644</b>	<b>570,795</b>	<b>3,230,8 07</b>	<b>254,312 ,844</b>	<b>939,136</b>	<b>259,141 ,226</b>	<b>7,662,0 49</b>	<b>266,803 ,275</b>
Profit for the year		-	-	-	24,665, 482	-	24,665, 482	608,900	25,274, 382
Gain on valuation of financial assets at fair value through other comprehensive income, net of tax	6,20	-	-	-	35,965	1,438,5 63	1,474,5 28	212,932	1,687,4 60

Share of other comprehensive income (loss) of associates and joint ventures, net of tax	9, 20	-	-	-	-	175,653	175,653	(4,171)	171,482	
Foreign currency translation differences for foreign operations, net of tax	20	-	-	-	-	10,977, 857	10,977, 857	111,695	11,089, 552	
Remeasurement of net defined benefit liabilities (assets), net of tax	14, 20	-	-	-	-	(548,32 4)	(548,32 4)	(13,690)	(562,01 4)	
Loss on valuation of cash flow hedge derivatives	20	-	-	-	-	(28,572)	(28,572)	-	(28,572)	
<b>Total comprehensive income for the year</b>						<b>24,701, 447</b>	<b>12,015, 177</b>	<b>36,716, 624</b>	<b>915,666</b>	<b>37,632, 290</b>
Dividends declared	19	-	-	-	-	(7,196,4 51)	-	(7,196,4 51)	(808,91 4)	(8,005,3 65)
Capital transactions under common control		-	-	-	-	-	-	-	(6,244)	(6,244)
Changes in consolidated entities		-	-	-	-	-	-	-	(56,215)	(56,215)
Treasury shares purchased		-	-	-	-	-	(1,329,1 64)	(1,329,1 64)	-	(1,329,1 64)
Others		-	-	-	-	-	19,691	19,691	-	19,691
<b>Total transactions with owners</b>						<b>(7,196,4 51)</b>	<b>(1,309,4 73)</b>	<b>(8,505,9 24)</b>	<b>(871,37 3)</b>	<b>(9,377,2 97)</b>
<b>Balance as of December 31, 2024</b>	<b>87,644</b>	<b>570,795</b>	<b>3,230,8 07</b>	<b>271,817 ,840</b>	<b>11,644, 840</b>	<b>287,351 ,926</b>	<b>7,706,3 42</b>	<b>295,058 ,268</b>		

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)

For the year ended December 31, 2023	Note	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Equity attributable to owners of the parent company		Non-controlling interests	Total
							Attributable to owners of the parent company	Attributable to non-controlling interests		
<b>Balance as of January 1, 2023</b>		<b>119,467</b>	<b>778,047</b>	<b>4,403,893</b>	<b>337,946,407</b>	<b>1,938,328</b>	<b>345,186,142</b>	<b>9,563,462</b>	<b>354,749,604</b>	
Profit for the year		-	-	-	14,473,401	-	14,473,401	1,013,699	15,487,100	
Gain (loss) on valuation of financial assets at fair value through other comprehensive income, net of tax	6, 20	-	-	-	4,041,867	(2,554,690)	1,487,177	(6,086)	1,481,091	
Share of other comprehensive income of associates and joint ventures, net of tax	9, 20	-	-	-	-	70,157	70,157	4,955	75,112	
Foreign currency translation differences for foreign operations translation, net of tax	20	-	-	-	-	2,611,915	2,611,915	9,564	2,621,479	
Remeasurement of net defined benefit liabilities	14, 20	-	-	-	-	(797,916)	(797,916)	(30,382)	(828,298)	

(assets), net of tax								
Gain on valuation of cash flow hedge derivatives	20	-	-	-	-	927	927	-
<hr/>								
<b>Total comprehensive income (loss) for the year</b>		-	-	-	<b>18,515,268</b>	<b>(669,607)</b>	<b>17,845,661</b>	<b>991,750</b>
								<b>18,837,411</b>
Dividends declared	19	-	-	-	(9,809,437 )	-	(9,809,437 )	(101,984) (9,911,421)
Capital transactions under common control		-	-	-	-	-	-	(9,368) (9,368)
Changes in consolidated entities		-	-	-	-	-	-	230 230
Others		-	-	-	-	11,409	11,409	-
<b>Total transactions with owners</b>		-	-	-	<b>(9,809,437 )</b>	<b>11,409</b>	<b>(9,798,028 )</b>	<b>(111,122) (9,909,150 )</b>
<b>Balance as of December 31, 2023</b>	<b>119,467</b>	<b>778,047</b>	<b>4,403,89 3</b>	<b>346,652,23 8</b>	<b>1,280,130</b>	<b>353,233,77 5</b>	<b>10,444,09 0</b>	<b>363,677,86 5</b>

---

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 2.18))*

For the year ended December 31, 2023	Note	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Equity attributable to owners of the parent company		Non-controlling interests	Total
							of the parent company	Non-controlling interests		
<b>Balance as of January 1, 2023</b>		<b>87,644</b>	<b>570,795</b>	<b>3,230,807</b>	<b>247,926,026</b>	<b>1,422,007</b>	<b>253,237,279</b>	<b>7,015,997</b>	<b>260,253,276</b>	
Profit for the year		-	-	-	10,618,053	-	10,618,053	743,675	11,361,728	
Gain (loss) on valuation of financial assets at fair value through other comprehensive income, net of tax	6, 20	-	-	-	2,965,216	(1,874,185)	1,091,031	(4,465)	1,086,566	
Share of other comprehensive income of associates and joint ventures, net of tax	9, 20	-	-	-	-	51,469	51,469	3,635	55,104	
Foreign currency translation differences for foreign operations, net of tax	20	-	-	-	-	1,916,167	1,916,167	7,016	1,923,183	
Remeasurement of net defined benefit liabilities	14, 20	-	-	-	-	(585,371)	(585,371)	(22,288)	(607,659)	

(assets), net of tax								
Gain on valuation of cash flow hedge derivatives	20	-	-	-	-	679	679	-
<b>Total comprehensive income (loss) for the year</b>		-	-	-	<b>13,583,269</b>	<b>(491,241)</b>	<b>13,092,028</b>	<b>727,573</b>
Dividends declared	19	-	-	-	(7,196,451)	-	(7,196,451)	(74,818)
Capital transaction under common control		-	-	-	-	-	-	(6,873)
Changes in consolidated entities		-	-	-	-	-	-	170
Others		-	-	-	-	8,370	8,370	-
<b>Total transactions with owners</b>		-	-	-	<b>(7,196,451)</b>	<b>8,370</b>	<b>(7,188,081)</b>	<b>(81,521)</b>
<b>Balance as of December 31, 2023</b>	<b>87,644</b>	<b>570,795</b>	<b>3,230,807</b>	<b>254,312,844</b>		<b>939,136</b>	<b>259,141,226</b>	<b>7,662,049</b>
								<b>266,803,275</b>

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 2.18))

	Notes	For the years ended December 31,			
		2024	2023	2024	2023
		KRW	KRW	USD	USD
<b>Operating activities</b>					
Profit for the year		34,451,351	15,487,100	25,274,382	11,361,728
Adjustments	27	42,947,079	36,519,534	31,507,063	26,791,653
Changes in assets and liabilities arising from operating activities	27	(1,567,557)	(5,458,745)	(1,150,000)	(4,004,673)
<b>Cash generated from operations</b>		<b>75,830,873</b>	<b>46,547,889</b>	<b>55,631,445</b>	<b>34,148,708</b>
Interest received		4,008,359	4,786,010	2,940,633	3,511,138
Interest paid		(675,049)	(844,691)	(495,233)	(619,687)
Dividends received		268,482	269,169	196,965	197,469
Income tax paid		(6,450,044)	(6,620,950)	(4,731,914)	(4,857,296)
<b>Net cash provided by operating activities</b>		<b>72,982,621</b>	<b>44,137,427</b>	<b>53,541,896</b>	<b>32,380,332</b>
 <b>Investing activities</b>					
Net decrease (increase) in short-term financial instruments		(32,976,756)	39,421,565	(24,192,582)	28,920,657
Net decrease (increase) in short-term financial assets at amortized cost		620,858	(195,616)	455,477	(143,509)
Net decrease (increase) in short-term financial assets at fair value through profit or loss		(9,735)	2,718	(7,142)	1,994
Disposal of long-term financial instruments		4,100,008	4,565,426	3,007,870	3,349,312
Acquisition of long-term financial instruments		(3,987,279)	(5,307,770)	(2,925,169)	(3,893,914)
Disposal of financial assets at fair value through other comprehensive income		389,680	6,521,568	285,879	4,784,387
Acquisition of financial assets at fair value through		(185,876)	(124,488)	(136,363)	(91,328)

other comprehensive income

Disposal of financial assets at fair value through profit or loss	309,970	63,962	227,402	46,924
Acquisition of financial assets at fair value through profit or loss	(70,982)	(130,459)	(52,074)	(95,708)
Disposal of investment in associates and joint ventures	33,178	33,457	24,340	24,545
Acquisition of investment in associates and joint ventures	(11,710)	(78,690)	(8,591)	(57,729)
Disposal of property, plant and equipment	156,191	98,341	114,586	72,145
Acquisition of property, plant and equipment	(51,406,355)	(57,611,292)	(37,713,001)	(42,265,100)
Disposal of intangible assets	15,869	11,744	11,642	8,616
Acquisition of intangible assets	(2,335,284)	(2,922,875)	(1,713,223)	(2,144,295)
Cash outflow from business combination	(142,156)	(356,511)	(104,289)	(261,545)
Cash inflow from disposal of held-for-sale assets	101,563	-	74,509	-
Cash inflow (outflow) from other investing activities	17,114	(913,897)	12,554	(670,458)
<b>Net cash used in investing activities</b>	<b>(85,381,702)</b>	<b>(16,922,817)</b>	<b>(62,638,175)</b>	<b>(12,415,006)</b>

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 2.18))

		For the years ended December 31,			
	Notes	2024	2023	2024	2023
		KRW	KRW	USD	USD
<b>Financing activities</b>					
Net increase in short-term borrowings	27	5,871,346	2,145,400	4,307,368	1,573,920
Increase in long-term borrowings	27	404,954	354,712	297,084	260,226
Repayment of debentures and long-term borrowings	27	(1,364,508)	(1,219,579)	(1,001,038)	(894,714)
Dividends paid		(10,888,749)	(9,864,474)	(7,988,261)	(7,236,827)
Treasury shares purchased		(1,811,775)	-	(1,329,164)	-
Transactions with non-controlling interests		(8,511)	(9,118)	(6,244)	(6,690)
<b>Net cash used in financing activities</b>		<b>(7,797,243)</b>	<b>(8,593,059)</b>	<b>(5,720,255)</b>	<b>(6,304,085)</b>
Reclassification to assets held-for-sale	32	-	(14,153)	-	(10,383)
Effect of foreign exchange rate changes		4,821,010	792,785	3,536,815	581,607
<b>Net increase (decrease) in cash and cash equivalents</b>		<b>(15,375,314)</b>	<b>19,400,183</b>	<b>(11,279,719)</b>	<b>14,232,465</b>
<b>Cash and cash equivalents</b>					
Beginning of the year		69,080,893	49,680,710	50,679,489	36,447,024
<b>End of the year</b>		<b>53,705,579</b>	<b>69,080,893</b>	<b>39,399,770</b>	<b>50,679,489</b>

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

### **3. Notes to consolidated financial statements**

#### **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 comprises businesses for digital televisions, refrigerators, smartphones and network systems. DS (Device Solutions) division comprises businesses for memory, foundry, and system Large Scale Integration (LSI). SDC includes display panels products. Harman division includes connected car systems, audio and visual products, enterprise automation solutions and connected services. SEC 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 228 subsidiaries, including Samsung Display and Samsung Electronics America. The Company also applies the equity method of accounting for its 35 associates and joint ventures, including Samsung Electro-Mechanics Co., Ltd.

##### **1.2 Consolidated Subsidiaries**

The consolidated subsidiaries as of December 31, 2024 are as follows:

Region	Subsidiaries	Business	Percentage of ownership (%) (*)
America	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)	Research and Development (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 Lennox HVAC North America, LLC	Sale of air conditioning products	50.1
	Joyent, Inc.	Cloud services	100.0
	SmartThings, Inc.	Sale of smart home electronics	100.0
	TeleWorld Solutions, Inc. (TWS)	Deployment and optimization of network devices	100.0
	Samsung Semiconductor, Inc. (SSI)	Sale of semiconductor and display panels	100.0

Samsung Federal, Inc. (SFI)	R&D	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.	Maintenance of semiconductor equipment	100.0
Samsung Display America Holdings, Inc. (SDAH)	Management of overseas subsidiaries	100.0
eMagin Corporation	Development and manufacture of display panels	100.0
Samsung Electronics Canada, Inc. (SECA)	Sale of electronic devices	100.0
AdGear Technologies Inc.	Digital advertising platforms	100.0
Sonio Corporation	Sale of medical software	100.0

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	Percentage of ownership (%) (*)
America	Samsung Eletronica 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, SAdCV(SEDAM)	Manufacture of home appliances	100.0
	Samsung Electronics Latinoamerica(Zona Libre), S. A. (SEL)A	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 and 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 and R&D	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 and R&D	100.0
Roon Labs, LLC.	Sale of audio products	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

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	Percentage of ownership (%) <sup>(*)</sup>
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 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 (SND)C	R&D	100.0
Samsung Denmark Research Center ApS (SDRC)	R&D	100.0
Samsung Cambridge Solution Centre Limited (SCSC)	R&D	100.0
SAMSUNG Zhilabs, S.L.	Development and sale of network solutions	100.0
FOODIENT LTD.	R&D	100.0
Oxford Semantic Technologies Limited (OST)	R&D	100.0
Sonio SAS	Sale of software and 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 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

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	Percentage of ownership (%) <sup>(e)</sup>
Europe/CIS	AKG Acoustics GmbH	Manufacture and sale of audio products	100.0
	Apostera UA, LLC	Connected Service Provider	100.0
	Harman Audio Iberia Espana Sociedad Limitada	Sale of audio products	100.0
	Harman Becker Automotive Systems GmbH	Manufacture and sale of audio products and 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 and 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
	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 and R&D	100.0
	Harman International Romania SRL	R&D	100.0
	Harman Management GmbH	Management of overseas subsidiaries	100.0
	Harman Professional Kft	Manufacture of audio products and R&D	100.0
	Harman Professional Denmark ApS	Sale of audio products and R&D	100.0
	Red Bend Software SAS	Software design	100.0
	Studer Professional Audio GmbH	Sale of audio products and R&D	100.0
	Harman Connected Services OOO	Connected service provider	100.0

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	Percentage of ownership (%) <sup>(*)</sup>
Middle East & Africa	Samsung Gulf Electronics Co., Ltd. (SGE)	Sale of electronic devices	100.0
	Samsung Electronics Turkiye (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 Middle East and North Africa (SEMENA)	Management of overseas subsidiaries	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
	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	
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	
Asia (Excluding China)	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-Bangalore)	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

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	Percentage of ownership (%) <sup>(*)</sup>
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 Connected Services Corp. India Pvt. Ltd.	Connected service provider	100.0
	Harman International (India) Private Limited	Sale of audio products and R&D	100.0
	Harman International Industries PTY Ltd.	Management of overseas subsidiaries	100.0
	Harman International (Thailand) Co., Ltd.	Manufacture and sale of audio products	100.0
	Harman International Japan Co., Ltd.	Sale of audio products and R&D	100.0
China	Harman Singapore Pte. Ltd.	Sale of audio products	100.0
	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
	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)	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/FPD 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 and 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 and R&D	100.0
Harman Technology (Shenzhen) Co., Ltd.	Sale of audio products and R&D	100.0

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	Percentage of o wnership
			(%) <sup>(*)</sup>
Domestic	Samsung Display Co., Ltd.	Manufacture and sale of display panels	84.8
	SU Materials	Manufacture of display panel 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
	Stella Forest of Hope	Manufacture of food	100.0
	Mirero System Co., Ltd.	Development and supply of semiconductor pr ocess defect and quality control software	99.9
	Harman International Korea	Software development and supply	100.0
	Samsung Venture Capital Union #21	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #22	Technology business, Venture capital investments	99.0
	Samsung Venture Capital Union #26	Venture capital investments in technology business	99.0

Samsung Venture Capital Union #28	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #32	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #33	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #37	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #42	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #43	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #45	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #52	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #55	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #56	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #57	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #62	Venture capital investments in technology business	99.0
Samsung Venture Capital Union #67	Venture capital investments in technology business	99.0
Growth Type Private Equity Trust Specialized in Semiconductors	Investment in semiconductor industry	66.7
System LSI Mutual Benefit Private Equity Trust	Investment in semiconductor industry	62.5
Semiconductor Ecosystem Private Equity Trust	Investment in semiconductor industry	66.7

(\*) 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) 2024

*(In millions of Korean won)*

Major subsidiaries <sup>(*)1</sup>	As of December 31, 2024		For the year ended December 31, 2024	
	Assets	Liabilities	Sales	Profit (loss) for the year
Samsung Display Co., Ltd.	67,541,382	8,305,660	25,401,419	5,989,037
Samsung Electronics America, Inc. (SEA)	50,777,503	18,653,435	40,650,074	1,628,652
Samsung Asia Pte. Ltd. (SAPL)	31,226,978	353,722	-	5,326,248
Samsung Austin Semiconductor LLC. (SAS)	27,546,958	16,107,374	4,998,707	1,171,180

Samsung Semiconductor, Inc. (SSI)	21,719,875	13,462,128	46,873,584	779,010
Harman and its subsidiaries(*2)	20,934,732	6,714,174	14,257,130	1,003,560
Samsung (China) Semiconductor Co., Ltd. (SCS)	18,796,411	900,205	11,180,211	1,195,361
Samsung (CHINA) Investment Co., Ltd. (SCIC)	16,111,528	15,246,946	2,754,791	300,719
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	13,497,264	3,802,597	32,962,634	2,078,833
Samsung India Electronics Private Ltd. (SIEL)	9,561,708	3,226,735	17,048,976	1,408,392
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	9,093,393	3,452,430	-	195,012
Samsung Electronics Vietnam Co., Ltd. (SEV)	7,819,080	2,167,121	21,294,696	1,359,308
Samsung Display Vietnam Co., Ltd. (SDV)	7,724,664	1,955,376	20,394,839	841,058
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	6,467,878	5,635,634	30,068,460	468,408
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	4,863,158	807,341	7,003,325	381,576
Samsung Eletronica da Amazonia Ltda. (SEDA)	4,679,383	1,486,272	7,935,236	208,102
Samsung Electronics (UK) Ltd. (SEUK)	3,267,763	2,042,914	6,158,787	181,457
Thai Samsung Electronics Co., Ltd. (TSE)	2,637,138	502,266	4,513,870	166,928
Samsung International, Inc. (SII)	2,484,711	646,678	7,473,309	138,140
Samsung Electronics Taiwan Co., Ltd. (SET)	2,411,145	1,642,510	5,744,458	62,255
SEMES Co., Ltd.	2,365,712	705,818	2,432,656	144,665
Samsung Electronics GmbH (SEG)	2,118,638	2,049,463	6,259,384	(1,661)
Samsung Electronics Mexico S.A. De C.V. (SEM)	2,017,910	845,480	4,086,721	125,857
Samsung Electronics Europe Logistics B.V. (SELS)	1,928,760	1,710,124	15,682,546	(12,249)
Samsung Electronics Benelux B.V. (SEBN)	1,894,968	726,412	2,918,779	12,514

(\*1) Summary of condensed financial information is based on separate financial statements of each subsidiary.

(\*2) Consolidated financial data of an intermediate company, Harman International Industries, Inc. and its subsidiaries.

(2) 2023

*(In millions of Korean won)*

Major subsidiaries <sup>(*)1</sup>	As of December 31, 2023		For the year ended December 31, 2023	
	Assets	Liabilities	Sales	Profit (loss) for the year
Samsung Display Co., Ltd.	65,328,568	7,266,213	27,083,336	8,268,314
Samsung Electronics America, Inc. (SEA)	41,926,899	15,322,780	39,551,809	477,338
Samsung Asia Pte. Ltd. (SAPL)	22,234,942	282,614	-	14,140,195
Harman and its subsidiaries <sup>(*)2</sup>	17,956,557	6,009,675	14,367,766	896,384
Samsung Austin Semiconductor LLC. (SAS)	16,714,945	7,791,914	4,109,744	301,778
Samsung (China) Semiconductor Co., Ltd. (SCS)	15,808,283	870,453	8,693,788	877,892
Samsung Semiconductor, Inc. (SSI)	12,796,440	6,276,293	23,465,031	136,458
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	12,554,481	3,593,527	30,639,349	2,240,480
Samsung (CHINA) Investment Co., Ltd. (SCIC)	10,222,557	8,797,991	3,148,858	189,887
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	9,660,481	4,585,806	-	103,387
Samsung India Electronics Private Ltd. (SIEL)	7,738,259	3,373,730	15,216,331	1,153,256
Samsung Display Vietnam Co., Ltd. (SDV)	7,383,485	1,570,459	24,200,246	1,143,824
Samsung Electronics Vietnam Co., Ltd. (SEV)	7,301,860	2,215,062	20,154,119	1,476,382
Samsung Eletronica da Amazonia Ltda. (SEDA)	5,542,627	1,587,911	7,222,304	333,812
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	5,262,086	4,552,030	15,649,307	244,210
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	4,043,677	843,736	6,152,983	402,418
Thai Samsung Electronics Co., Ltd. (TSE)	3,039,379	640,512	4,213,492	150,510
Samsung Electronics (UK) Ltd. (SEUK)	2,902,722	1,976,067	5,859,133	185,113
SEMES Co., Ltd.	2,187,919	659,607	2,502,143	58,754
Samsung Electronics Mexico S.A. De C.V. (SEM)	2,153,032	1,038,115	3,638,080	148,873
Samsung Electronics GmbH (SEG)	2,097,706	2,033,152	6,374,670	(3,157)
Samsung International, Inc. (SII)	1,879,442	383,763	6,553,383	141,226
Samsung Electronics Taiwan Co., Ltd. (SET)	1,797,627	1,139,056	4,108,479	56,467
Samsung Electronics Benelux B.V. (SEBN)	1,794,552	639,120	2,833,717	140,313
Samsung Electronics Europe Logistics B.V. (SELS)	1,639,004	1,443,005	15,462,852	4,984

<sup>(\*)1</sup> Summary of condensed financial information is based on separate financial statements of each subsidiary.

<sup>(\*)2</sup> Consolidated financial data of an intermediate company, Harman International Industries, Inc. and its subsidiaries.

## 1.4 Changes in Consolidation Scope

Changes in consolidation scope during the year ended December 31, 2024 are as follows:

Change	Region	Subsidiary	Description
Newly included	America	Sonio Corporation	Acquisition
	Europe • CIS	Oxford Semantic Technologies Limited (OST)	Acquisition
	Middle East • Africa	Sonio SAS	Acquisition
	Asia (Excluding China)	Samsung Electronics Middle East and North Africa (SEMENA)	Establishment
	Domestic	Harman International (Thailand) Co., Ltd.	Establishment
		Samsung Venture Capital Union #67	Establishment
Excluded	America	Harman Financial Group LLC	Liquidation
	Europe • CIS	Samsung Display Slovakia, s.r.o., v likvidacii (SDSK)	Liquidation
	Asia (Excluding China)	Samsung Electronics Overseas B.V. (SEO)	Liquidation
	China	DOWOOINSYS VINA COMPANY LIMITED	Sale
		Tianjin Samsung Electronics Co., Ltd. (TSEC)	Liquidation
		Dowooinsys Co., Ltd.	Sale
		Gf-System Co., Ltd.	Sale
	Domestic	Samsung Venture Capital Union #29	Liquidation
		Samsung Venture Capital Union #40	Liquidation
		Samsung Venture Capital Union #48	Liquidation

## 2. Material Accounting Policies

The followings are material accounting policies applied on the consolidated financial statements. Unless mentioned otherwise, these policies are consistent throughout the accounting periods denoted.

### 2.1 Basis of Presentation

The Company's consolidated financial statements have been written in accordance with the Korean International Financial Reporting Standards ("Korean IFRS"). The Korean IFRS refers to standards selected by the Republic of Korea among accounting standards and interpretations published by International Accounting Standards Board (IASB).

The Korean IFRS permits application of material accounting estimates on the financial statements and requires management's judgements in applying accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are material to the financial statements are disclosed in Note 3.

## 2.2 Changes in Accounting Policies and Disclosures

### (A) New and amended standards adopted by the Company

The Company applied the following amended standards for the first time for the annual reporting period commencing on January 1, 2024:

#### Amendments to Korean IFRS 1001, *Presentation of Financial Statements*

The amendments to Korean-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 management's intentions or expectations about 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 includes the transfer to the counterparty of the entity's own equity instruments, however, it would be excluded if an option to settle the liability by the transfer of the entity's own equity instruments is recognized separately from the liability as an equity component of a compound financial instrument. The adoption of the amendments does not have a significant impact on the Company's consolidated financial statements.

#### Amendments to Korean IFRS 1116, *Leases*

The amendments add requirements for the subsequent measurement of sale-and-leaseback transactions that are accounted for as sales in accordance with Korean IFRS 1115, *Revenue from Contracts with Customers*. The amendments require the seller-lessee to calculate the 'lease payments' or 'revised lease payments' in a way that does not result in the seller-lessee recognizing any gain or loss for the rights of use that the seller-lessee continues to retain after the lease commences. The adoption of the amendments does not have a significant impact on the Company's consolidated financial statements.

#### Amendments to Korean IFRS 1007, *Statement of Cash Flows*, and 1107, *Financial Instruments: Presentation*

The amendments to Korean IFRS 1007, Statement of Cash Flows, introduce new disclosures, such as terms and conditions, balance payment due dates and the effects on cash flows, to help users of the financial statements to assess the effects of supplier financing arrangements on an entity's liabilities and cash flows. The amendments to Korean IFRS 1107, Financial Instruments: Presentation, requires disclosure of information about an entity's exposure to concentrations of liquidity related to supplier financing arrangement. The adoption of the amendments does not have a significant impact on the Company's separate financial statements.

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

The amended accounting standard that has been issued but not yet effective for the annual reporting period commencing on January 1, 2024 and has not been early adopted by the Company is as follows:

#### Amendments to Korean IFRS 1021, *The Effects of Changes in Foreign Exchange Rates*

The amendments to Korea IFRS 1021 clarify how the Company estimates a spot rate, which is used for translation of foreign transaction into functional currency or translation of foreign operation's financial statements into reporting currency, when a currency lacks exchangeability. The amendments are applied for annual periods beginning on or after January 1, 2025, with early application permitted.

## **2.3 Consolidation**

The Company prepares its consolidated financial statements in accordance with Korean IFRS 1110, *Consolidated Financial Statements*.

(A) Non-controlling interests

Each component of profit or loss and other comprehensive income is attributable to the owners of the parent and the non-controlling interests, and total comprehensive income is attributable to the owners of the parent and the non-controlling interests, even if the non-controlling interests have a negative balance.

(B) Elimination of intercompany transactions

Intercompany transactions, balances, income and expenses and unrealized gains and losses (excluding foreign exchange gains and losses) are eliminated on consolidation. The Company's share of unrealized losses on transactions with associates accounted for using the equity method are eliminated in the same way as unrealized gains unless there is evidence of impairment of the asset.

## **2.4 Functional and Presentation Currency**

(A) Functional and presentation currency

The Company measures the items included in the financial statements of each component using the currency of the primary economic environment in which each it operates ("functional currency"). The functional currency of the parent company is Korean won (KRW) and the consolidated financial statements are presented in Korean won (KRW).

(B) Translation into the presentation currency

The results and financial position of all entities subjected to consolidation that have a functional currency different from the parent's presentation currency are translated into the parent's presentation currency as follows:

(1) Assets and liabilities are translated at the closing rate at the end of the reporting date.

(2) Income and expenses in the statement of profit or loss are translated at average exchange rates for the period.

However, if this average rate is not a reasonable approximation of the cumulative effect of the exchange rates at the dates of the transactions, the transactions are translated at the exchange rates at the dates of transactions.

(3) Exchange differences arising on translation in (1) and (2) above are recognized in other comprehensive income.

## **2.5 Cash and Cash Equivalents**

Cash and cash equivalents include cash on hand, deposits held at call with banks, and highly liquid short-term investment assets that are readily convertible to known amounts of cash at the date of acquisition and which are subject to an insignificant risk of changes in value.

\

## **2.6 Financial Assets**

### (A) Classification

Financial instruments are classified based on the business model for managing the financial assets and the contractual cash flow characteristics of the financial asset. The Company considers the contractual terms of the relevant financial instrument and assesses whether the contractual cash flows consist solely of payments of principal and interest on the principal amount outstanding.

### (B) Impairment

The Company assesses the expected credit losses of debt instruments carried at amortized cost or fair value through other comprehensive income on a forward-looking basis. However, the Company applies the simplified approach for trade receivables, which requires expected credit losses to be recognized over the life of the receivable from initial recognition.

## **2.7 Trade Receivables**

Trade receivables are recognized at initial transaction price, unless they contain a significant financing component, and are subsequently measured at amortized cost using the effective interest method less any allowance for impairment.

## **2.8 Inventories**

The Company determines the unit cost of inventories, except for materials in transit, using the average cost method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related production overheads based on normal operating capacity, excluding the cost of idle production equipment and scrapping costs.

The Company measures inventories at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the applicable variable selling expenses, and reflects the decrease in selling price, the increase in costs to completion, or decrease in value due to excess or obsolete inventory.

## **2.9 Property, Plant and Equipment**

Depreciation of property, plant and equipment begins when assets are considered by management to be available for their intended use, such as in the production of products.

The Company's property, plant and equipment is depreciated on a straight-line method over the estimated useful lives of the assets, less any residual values. Land is not depreciated. Costs that are directly attributable to the acquisition, construction of a qualifying asset, including capitalized interest costs, are depreciated over the estimated useful lives.

The estimated useful lives of property, plant and equipment used by the Company for each asset category are as follows:

	<b>Estimated useful lives</b>
Buildings and structures	15, 30 years
Machinery and equipment	5 years
Other	5 years

## **2.10 Intangible Assets**

Goodwill represents the excess of the cost of an acquisition over the fair value of the identifiable net assets of subsidiaries, associates and joint ventures, businesses and other entities acquired at the date of acquisition and is recognized as an intangible assets in respect of acquisitions of businesses of subsidiaries and as an investment in associates and joint ventures in respect of acquisitions of interests in associates and joint ventures.

Intangible assets, other than goodwill, are initially recognized at their historical cost and are subsequently stated at cost less accumulated amortization and accumulated impairment losses.

Membership rights are regarded as intangible assets with indefinite useful life and not amortized as there are no foreseeable restrictions on their use. However, whenever there is an indication of impairment, such as a decline in the market value of membership rights, a reasonable estimate is made to reflect the impairment. Intangible assets with finite useful lives, such as patents, trademarks and other intangible assets, are amortized on a straight-line method over their estimated useful lives.

The estimated useful lives of intangible assets used by the Company are as follows:

	<b>Estimated useful lives</b>
Patents, trademarks and other intangible assets	3 - 25 years

## **2.11 Financial Liabilities**

The Company classifies financial liabilities into financial liabilities at fair value through profit or loss and other financial liabilities and recognizes them on the consolidated statement of financial position when the Company becomes a party to a contract, depending on the substance of the contractual terms.

## **2.12 Employee Benefits**

The Company operates various types of post-employment benefit plans, including defined benefit plans and defined contribution plans. The defined benefit liability (asset) recognized in the consolidated statement of financial position in respect of defined benefit plans is the present value of the defined benefit obligation at the reporting date less the fair value of plan assets, less any deficit (excess of plan assets over the asset recognition threshold) and is calculated annually by an independent actuary using the projected unit credit method.

## **2.13 Income Tax Expense**

The global minimum top-up tax in accordance with the Pilar Two tax legislation is subject to Korean IFRS 1012, Corporate Income Tax. The Company accounts for the amount of global minimum top-up tax as a current tax when it is incurred, and applies the exception for the recognition and disclosure of deferred income tax related to the global minimum top-up tax.

The Company recognizes deferred tax liabilities for taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, except where the Company is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets are recognized for deductible temporary differences arising on these assets only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

## **2.14 Derivative Instruments**

The Company recognizes its rights and obligations under derivative contracts as assets and liabilities at fair value and records gains and losses on these contracts in the statement of profit or loss. However, effective portion of changes in the fair value of cash flow hedges are deferred in equity.

The Company applies cash flow hedge accounting for hedges of risks including changes in the price of inventories. The effective portion of the change in fair value of a derivative that is designated as a cash flow hedge is recognized in other comprehensive income, while the ineffective portion is recognized in ‘financial income’ or ‘financial expense’.

## **2.15 Revenue Recognition**

The Company's revenue primarily represents the fair value of the consideration received or receivable for the sale of goods in the ordinary course of the Company's activities. Revenue is net of value-added tax, returns, sales incentives, discounts and others.

(A) Identification of performance obligations

The Company is required to transfer control of goods and services under contracts with customers. For the export of products and goods under Incoterms Group C terms (such as CIF), the Company recognizes the transportation services (including insurance) provided after the control of the goods has passed to the customer as a separate performance obligation.

(B) Performance obligations satisfied at a point of time

The Company's revenue is primarily derived from the sale of goods and is recognized when control of the goods passes to the customer.

(C) Performance obligations satisfied over time

The Company recognizes revenue over time for sales of software, transportation services, installation services, and etc. where the customer has direct control over the outcome during the performance of the service.

(D) Variable consideration

The Company provides a variety of sales promotions including incentives, promotion and sales allowances. Where these sales promotion policies result in variability in the consideration promised to customers, the Company estimates the variable consideration using either the expected value or the most likely amount whichever method the Company expects to better predict the amount of consideration to which it will be entitled. The estimate of variable consideration is included in transaction price only to the extent that it is highly probable that a significant portion of the cumulative revenue already recognized will not be reversed when the related uncertainties are resolved. Revenue and contract liabilities are recognized when the related revenue is earned or when the decision to pay the variable consideration to the customer is made, whichever is later.

The Company recognizes contract liabilities (refund liabilities) after the sale of products to customers by estimating the return rate using the expected value methods based on historical experience. When the customer exercises its right to return the product, the Company recognizes the asset as a refund asset and adjusts cost of sales by the amount of the right to collect the product from the customer. The right to collect the product is measured by deducting the cost of collecting the product from the historical carrying amount of the product.

## **2.16 Leases**

### (A) Lessee accounting

The Company applies the practical expedient of Korean IFRS 1116, *Leases*, and does not separate the non-lease elements from the lease elements and accounts for the non-lease elements relating to each lease element as a single lease element.

At the commencement date of a lease, the Company recognizes a right-of-use asset (the lease asset) representing the right to use the underlying asset and a lease liability representing the obligation to make lease payments. The right-of-use asset is presented in the consolidated statement of financial position as ‘property, plant and equipment’ and the lease liability is presented as ‘current portion of long-term liabilities’ or ‘long-term borrowings.’

Lease liabilities are measured at the inception of the lease at the present value of the lease payments outstanding at that date, discounted at the Company’s incremental borrowing rate.

For short-term leases (lease terms of 12 months or less at the inception of the lease) and low value assets (underlying assets of USD 5,000 or less), lease payments are recognized as expenses on a straight-line basis over the lease term applying the simplified practical expedient.

### (B) Lessor accounting

The Company, as a lessor, determines whether a lease is a finance or an operating lease at the inception of the lease.

Leases that transfer substantially all the risk and rewards of ownership of the leased assets are classified as finance leases and all leases other than finance leases are classified as operating leases. Lease income from operating leases is recognized on a straight-line basis over the lease term, while initial direct costs incurred during the negotiation and contracting phase of an operating lease are added to the carrying amount of the leased asset and expensed over the lease term against the lease income.

## **2.17 Government Grants**

Government grants relating to revenues are deferred and recognized in the consolidated statement of profit or loss in the same period in which they are matched with revenues or expenses related to the purpose for which the grant was made. Government grants received related to the acquisition of assets are treated as deferred income and credited to the consolidated statement of profit or loss over the useful lives of the related assets.

## **2.18 Convenience Translation into United States Dollar Amounts**

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 dollar at the rate of ₩1,363.09 to \$1, the average exchange rate for the year ended December 31, 2024. 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 any other rate.

## **2.19 Approval of the Consolidated Financial Statements**

The consolidated financial statements of the Company were approved by the Board of Directors on January 31, 2025, and may be approved as amended at the Annual General Shareholders' Meetings.

## **3. Material Accounting Estimates and Assumptions**

The Company makes estimates and assumptions concerning the future. Estimates and assumptions are continuously evaluated and are based on historical experience and future events that are reasonably foreseeable under the circumstances. These estimates may differ from actual results. The estimates and assumptions that have the most significant risk of causing a material adjustment to the carrying amounts of assets and liabilities in the next financial year are as follows.

### **(A) Revenue recognition**

The Company recognizes a liability for a product return and a right to the returned goods that are expected to be returned by customers following the sale of products to customers. At the point of sale, the Company estimates the return using the expected value method based on accumulated experience at the portfolio level and the Company's revenue is affected by changes in the expected return.

Revenue from the sale of goods recognized at the point of transfer of control is the contractual consideration less consideration paid to customers in relation to certain sales promotion activities. Based on the historical experience and terms of contracts, the Company makes reasonable estimates of the sales deductions which affect the Company's revenue

### **(B) Provision for warranty**

The Company provides warranties for products sold. At the end of each reporting period, the Company recognizes a provision for warranties based on its best estimate of the amount it believes is necessary to provide for future and current warranty obligations. These best estimates are based on historical experience.

(C) Fair value of financial instruments

The fair value of financial instruments that are not traded in an active market is determined by using various valuation techniques and assumptions based on market conditions prevailing at the end of each reporting period.

(D) Impairment of financial assets

In measuring the allowance for impairment losses on financial assets, the Company makes assumptions about the risk of default and expected credit rates. In making these assumptions and selecting the inputs for the impairment calculations, the Company makes judgment based on past experience and current and forecast of future economic conditions at the reporting date.

(E) Lease

In determining the lease term, the Company considers all relevant facts and circumstances that provide an economic incentive to exercise a renewal option, or not to exercise a termination option. The period covered by the renewal option (or the period covered by the termination option) is included in the lease term only if it is reasonably certain that the lessee will exercise (or not exercise) the renewal option.

The lease term is reassessed when the option is actually exercised (or not exercised) or when the Company becomes committed to exercise (or not exercise) the option. The Company only changes its assessment of whether it is reasonably certain the renewal option will be exercised (or not) if there is a significant event or change in circumstances within the lessee's control that affects the calculation of the lease term.

(F) Net defined benefit liabilities (assets)

The net defined benefit liabilities (assets) are dependent on a number of factors which are determined using actuarial methods based on a number of assumptions. Among the assumptions used to determine the net defined benefit liabilities (assets) is the discount rate, and changes in these assumptions will affect the carrying amount of the net defined benefit liability (asset). At the end of each year the Company determines an appropriate discount rate, taking into account the interest rates on high-quality corporate bonds, which represents the interest rate that should be used to determine the present value of the estimated future cash outflows expected to be required to settle the net defined benefit liability (asset). Some other key assumptions relating to the net defined benefit liability (asset) are based on current market conditions.

(G) Impairment of goodwill and intangible assets that have indefinite useful life

The Company tests goodwill and intangible assets with indefinite useful life for impairment annually. The recoverable amount of a cash-generating unit or asset, including goodwill, is determined based on a value-in-use calculation. These calculations are based on estimates.

## (H) Income taxes

Income taxes on the Company's taxable income are calculated by applying tax laws and decisions of tax authorities in various countries, and, therefore, there is uncertainty in determining the final tax effect. The Company has recognized current and deferred tax based on its best estimate of the tax consequences expected to be payable in future periods as a result of the Company's operating activities up to the reporting date. However, the actual future final tax liability may not be consistent with the related assets and liabilities recognized, and such differences may affect the current and deferred tax assets and liabilities when the final tax effect is determined.

The Company is subject to additional income taxes, calculated in accordance with the method prescribed by tax laws, when a certain amount is not used for investment, wage growth, etcetera, in a given period. The related tax effect is reflected in the measurement of current and deferred income taxes for the period, and the amount of income tax payable by the Company depends on the level of investment, wage growth, etcetera in each year, resulting in uncertainty in determining the final tax effects.

The Company assesses uncertainty over its tax positions and, if the Company concludes that it is not probable that the tax authorities will accept an uncertain tax position, the effect of the uncertainty is recognized in the consolidated financial statements for each uncertain tax position using the method that is expected to provide a better estimate of the resolution of the uncertainty, which is more likely of the following methods.

- (1) Most likely amount: the single most probable amount within a range of possible outcomes.
- (2) Expected value: the sum of the probability-weighted amounts in a range of possible outcomes.

#### 4. Financial Instruments by Category

(A) Categorizations of financial assets and liabilities as of December 31, 2024 and 2023 are as follows:

(1) As of December 31, 2024

<i>(In millions of Korean won)</i>	Financial assets measured at fair value through other comprehen- sive income	Financial assets measured at fair value through profit or loss	Other financial assets <sup>(*)</sup>	Total
<b>Financial assets</b>				
Cash and cash equivalents	53,705,579	-	-	53,705,579
Short-term financial instruments	58,909,334	-	-	58,909,334
Short-term financial assets at fair value through profit or loss	-	-	36,877	36,877
Trade receivables	43,623,073	-	-	43,623,073
Financial assets at fair value through other comprehensive income	-	10,580,932	-	10,580,932
Financial assets at fair value through profit or loss	-	-	1,175,749	1,175,749
Other	14,378,224	-	476,394	44,262
<b>Total</b>	<b>170,616,210</b>	<b>10,580,932</b>	<b>1,689,020</b>	<b>44,262</b>
				<b>182,930,424</b>

<sup>(\*)</sup>Other financial assets include derivatives designated as hedging instruments.

<i>(In millions of Korean won)</i>	Financial liabilities measured at fair value through profit or loss	Other financial liab- ilities <sup>(*)</sup>	Total
<b>Financial liabilities</b>			
Trade payables	12,370,177	-	12,370,177
Short-term borrowings	338,058	-	12,834,446
			<b>13,172,504</b>

Other payables	17,390,861	-	-	17,390,861
Current portion of long-term liabilities	1,106,764	-	1,100,526	2,207,290
Debentures	14,530	-	-	14,530
Long-term borrowings	6,537	-	3,929,323	3,935,860
Long-term other payables	4,779,141	-	-	4,779,141
Other	13,698,485	36,795	57,764	13,793,044
<b>Total</b>	<b>49,704,553</b>	<b>36,795</b>	<b>17,922,059</b>	<b>67,663,407</b>

(\*) Other financial liabilities include lease liabilities, which are not subject to categorization, collateralized borrowings and derivatives designated as hedging instruments.

(2) As of December 31, 2023

<i>(In millions of Korean won)</i>	<b>Financial assets measured at amortized cost</b>	<b>Financial assets measured at fair value through other comprehensive income</b>	<b>Financial assets measured at fair value through profit or loss</b>	<b>Other financial assets<sup>(*)</sup></b>	<b>Total</b>
<b>Financial assets</b>					
Cash and cash equivalents	69,080,893	-	-	-	69,080,893
Short-term financial instruments	22,690,924	-	-	-	22,690,924
Short-term financial assets at amortized cost	608,281	-	-	-	608,281
Short-term financial assets at fair value through profit or loss	-	-	27,112	-	27,112
Trade receivables	36,647,393	-	-	-	36,647,393
Financial assets at fair value through other comprehensive income	-	7,481,297	-	-	7,481,297
Financial assets at fair value through profit or loss	-	-	1,431,394	-	1,431,394
Other	14,294,254	-	475,244	70,777	14,840,275
<b>Total</b>	<b>143,321,745</b>	<b>7,481,297</b>	<b>1,933,750</b>	<b>70,777</b>	<b>152,807,569</b>

(\*) Other financial assets include derivatives designated as hedging instruments.

<i>(In millions of Korean won)</i>	<b>Financial liabilities measured at amortized cost</b>	<b>Financial liabilities measured at fair value through profit or loss</b>	<b>Other financial liabilities<sup>(*)</sup></b>	<b>Total</b>
<b>Financial liabilities</b>				
Trade payables	11,319,824	-	-	11,319,824
Short-term borrowings	504,552	-	6,610,049	7,114,601
Other payables	13,996,395	-	-	13,996,395
Current portion of long-term liabilities	310,436	-	998,439	1,308,875
Debentures	537,618	-	-	537,618
Long-term borrowings	-	-	3,724,850	3,724,850
Long-term other payables	4,907,875	-	-	4,907,875
Other	11,330,545	49,904	33,559	11,414,008
<b>Total</b>	<b>42,907,245</b>	<b>49,904</b>	<b>11,366,897</b>	<b>54,324,046</b>

<sup>(\*)</sup> Other financial liabilities include lease liabilities, which are not subject to categorization, collateralized borrowings and derivatives designated as hedging instruments.

(B) Net gains or losses on each category of financial assets and liabilities for the years ended December 31, 2024 and 2023 are as follows:

(1) 2024

<i>(In millions of Korean won)</i>	<b>Financial assets measured at amortized cost</b>	<b>Financial assets measured at fair value through other comprehensive income</b>	<b>Financial assets measured at fair value through profit or loss</b>	<b>Other financial assets<sup>(*)</sup></b>	<b>Total</b>
<b>Financial assets</b>					
Gain on valuation (other comprehensive income)	-	2,300,166	-	39,303	2,339,469

#### Financial assets

Gain on valuation (other comprehensive income)	-	2,300,166	-	39,303	2,339,469
---	---	-----------	---	--------	-----------

Gain (loss) on valuation/disposal (profit or loss)	(111,124)	-	144,453	(4,524)	28,805
Reclassification from other comprehensive income to profit or loss	-	-	-	(4,590)	(4,590)
Interest income	4,818,923	-	205	-	4,819,128
Foreign exchange differences (profit or loss)	1,415,673	-	-	-	1,415,673
Dividend income	-	133,681	1,271	-	134,952
Impairment (profit or loss)	(64,352)	-	-	-	(64,352)

(\*) Other financial assets include derivatives designated as hedging instruments.

<i>(In millions of Korean won)</i>	<b>Financial liabilities measured at amortized cost</b>	<b>Financial liabilities measured at fair value through profit or loss</b>	<b>Other financial liabilities<sup>(*)</sup></b>	<b>Total</b>
<b>Financial liabilities</b>				
Loss on valuation	-	-	(48,540)	(48,540)
(other comprehensive income)				
Gain on valuation/disposal	-	66,514	5,587	72,101
(profit or loss)				
Reclassification from				
other comprehensive income	-	-	5,669	5,669
to profit or loss				
Interest expense	(176,503)	-	(727,415)	(903,918)
Foreign exchange differences (profit or loss)	(1,169,716)	-	(161,064)	(1,330,780)

(\*) Other financial liabilities include lease liabilities, which are not subject to categorization, collateralized borrowings and derivatives designated as hedging instruments.

(2) 2023

<i>(In millions of Korean won)</i>	<b>Financial assets</b>	<b>Financial assets measured at fair value through other comprehensive income</b>	<b>Financial assets measured at fair value through profit or loss</b>	<b>Other financial assets<sup>(*)</sup></b>	<b>Total</b>
	<b>measured at amortized cost</b>				
<b>Financial assets</b>					
Gain on valuation  (other comprehensive income)	-	1,481,091	-	58,290	1,539,381
Gain (loss) on valuation/disposal  (profit or loss)	(64,758)	-	213,308	436	148,986
Reclassification from other comprehensive income to profit or loss	-	-	-	1,169	1,169
Interest income	4,357,792	-	230	-	4,358,022
Foreign exchange differences  (profit or loss)	(98,522)	-	-	-	(98,522)
Dividend income	-	161,509	2,694	-	164,203
Impairment (profit or loss)	(74,594)	-	-	-	(74,594)

<sup>(\*)</sup>Other financial assets include derivatives designated as hedging instruments.

<i>(In millions of Korean won)</i>	<b>Financial liabilities</b>	<b>Financial liabilities measured at fair value through</b>	<b>Other financial liabilities<sup>(*)</sup></b>	<b>Total</b>
	<b>measured at amortized cost</b>			
<b>Financial liabilities</b>				

**profit or loss**

---

**Financial liabilities**

Loss on valuation	-	-	(16,809)	(16,809)
(other comprehensive loss)				
Loss on valuation/disposal	-	(116,167)	(126)	(116,293)
(profit or loss)				
Reclassification from				
other comprehensive income	-	-	(337)	(337)
to profit or loss				
Interest expense	(510,865)	-	(419,388)	(930,253)
Foreign exchange differences	162,844	-	61,920	224,764
(profit or loss)				

---

(\*) Other financial liabilities include lease liabilities, which are not subject to categorization, collateralized borrowings and derivatives designated as hedging instruments

**5. Transfer of Financial Assets**

The Company discounted trade receivables through factoring arrangements with banks during the years ended December 31, 2024 and 2023. Trade receivables provided as collaterals in factoring transactions have not been derecognized as they do not meet the requirements for derecognition of financial assets as the Company retains substantially all the risks and rewards, including the recourse in the event of default by the debtor. Financial liabilities recognized in these transactions are classified as ‘short-term borrowings’ on the consolidated statement of financial position (refer to Note 12).

The carrying amount of the discounted trade receivables and the associated liabilities as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Carrying amount of the discounted trade receivables (*)	12,834,446	6,610,049
Carrying amount of the associated liabilities	12,834,446	6,610,049

(\*) Discounted trade receivables includes trade receivables between consolidated entities.

**6. Financial Assets at Fair Value**

(A) Details of financial assets at fair value as of December 31, 2024 and 2023 are as follows:

(1) Financial assets at fair value through other comprehensive income <i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
<hr/>		
Non-current		
<hr/>		
Equity instruments	10,580,932	7,481,297
<hr/>		
(2) Financial assets at fair value through profit or loss <i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
<hr/>		
Current		
Debt instruments	36,877	27,112
Non-current		
Equity instruments	544,374	812,358
Debt instruments	631,375	619,036
Subtotal	1,175,749	1,431,394
<b>Total</b>	<b>1,212,626</b>	<b>1,458,506</b>
<hr/>		

(B) Changes in financial assets at fair value for the years ended December 31, 2024 and 2023 are as follows:

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

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
<hr/>		
Balance as of January 1	7,481,297	11,397,012
Acquisition	182,655	124,897
Disposal	(409,434)	(5,918,616)
Fair value valuation gain	3,106,853	1,548,022
Other	219,561	329,982
<b>Balance as of December 31</b>	<b>10,580,932</b>	<b>7,481,297</b>
<hr/>		

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

(In millions of Korean won)

2024

2023

Balance as of January 1	1,431,394	1,405,468
Acquisition	74,699	146,392
Disposal	(343,374)	(81,113)
Fair value valuation loss	(26,515)	(38,110)
Other	39,545	(1,243)
<b>Balance as of December 31</b>	<b>1,175,749</b>	<b>1,431,394</b>

- (C) Changes in gain (loss) on valuation of financial assets at fair value through other comprehensive income for the years ended December 31, 2024 and 2023 are as follows:

(In millions of Korean won)	2024	2023
Balance as of January 1	249,121	3,636,478
Fair value valuation gain	2,571,076	1,548,022
Reclassification to retained earnings due to disposals	(49,887)	(4,935,379)
<b>Balance as of December 31</b>	<b>2,770,310</b>	<b>249,121</b>
Income tax effects on equity	(614,995)	(54,702)
<b>Total</b>	<b>2,155,315</b>	<b>194,419</b>

- (D) Details of listed equity securities of financial assets at fair value as of December 31, 2024 and 2023 are as follows:

(In millions of Korean won, number of shares and percentage)	December 31, 2024			December 31, 2023	
	Number of sh ares owned	Percentage of ownership <sup>(*)</sup> (%)	Acquisition cost	Carrying amount (Market value)	Carrying amount (Market value)
Samsung Heavy Industries Co., Ltd.	134,027,281	15.2	932,158	1,514,508	1,038,711
Hotel Shilla Co., Ltd.	2,004,717	5.1	13,957	73,974	131,108
iMarketKorea Inc.	647,320	1.9	324	5,179	5,560
Wonik Holdings Co., Ltd.	3,518,342	4.6	30,821	8,972	11,857
Wonik IPS Co., Ltd.	3,701,872	7.5	32,428	82,737	125,679
Wacom Co., Ltd.	8,398,400	5.8	62,013	57,021	50,358

Corning Incorporated	74,000,000	8.6	3,831,362	5,169,226	3,140,978
Other			557,554	861,115	1,093,963
<b>Total</b>			<b>5,460,617</b>	<b>7,772,732</b>	<b>5,598,214</b>

(\*) Ownership represents the Company's ownership of the ordinary shares issued by each entity.

## 7. Trade and Non-Trade Receivables

(A) Trade and non-trade receivables as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2024		December 31, 2023	
	Trade	Non-trade	Trade	Non-trade
Receivables	44,071,714	10,491,746	37,026,738	7,474,967
Less: Loss allowance	(421,000)	(84,945)	(355,456)	(82,224)
<b>Subtotal</b>	<b>43,650,714</b>	<b>10,406,801</b>	<b>36,671,282</b>	<b>7,392,743</b>
Less: Non-current	(27,641)	(783,827)	(23,889)	(759,495)
<b>Current</b>	<b>43,623,073</b>	<b>9,622,974</b>	<b>36,647,393</b>	<b>6,633,248</b>

(B) Movements in the loss allowance for receivables for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	2024		2023	
	Trade	Non-trade	Trade	Non-trade
Balance as of January 1	355,456	82,224	312,221	78,101
Bad debt expense (reversal)	61,705	1,413	62,964	(297)
Write-off	(9,404)	(3,458)	(18,875)	(124)
Other	13,243	4,766	(854)	4,544
<b>Balance as of December 31</b>	<b>421,000</b>	<b>84,945</b>	<b>355,456</b>	<b>82,224</b>

(C) The details of trade and non-trade receivables classified by past due date for the purpose of measuring expected credit losses as of December 31, 2024 and 2023 are as follows:

	December 31, 2024		December 31, 2023	
<i>(In millions of Korean won)</i>	Trade	Non-trade	Trade	Non-trade
Receivables not past due	40,986,584	10,089,887	33,633,006	7,077,413
Past due:				
Less than 31 days past due <sup>(*)</sup>	2,619,575	253,962	2,262,296	269,390
31 days to 90 days past due	124,204	24,623	478,371	15,369
More than 90 days past due	341,351	123,274	653,065	112,795
Subtotal	3,085,130	401,859	3,393,732	397,554
<b>Total</b>	<b>44,071,714</b>	<b>10,491,746</b>	<b>37,026,738</b>	<b>7,474,967</b>

<sup>(\*)</sup> The Company does not consider the credit risk of non-trade receivables that are overdue for less than or equal to 31 days has been significantly increased.

(D) The maximum exposure to current credit risk is equivalent to the carrying amount of receivables as of December 31, 2024. The Company has entered into insurance contracts with insurers for its major receivables.

## 8. Inventories

Inventories as of December 31, 2024 and 2023 are as follows:

	December 31, 2024			December 31, 2023		
<i>(In millions of Korean won)</i>	Gross amount	Valuation allowance	Carrying amount	Gross amount	Valuation allowance	Carrying amount
Finished goods	15,061,526	(1,219,250)	13,842,276	16,120,367	(1,567,353)	14,553,014
Work in process	24,808,183	(2,467,701)	22,340,482	26,501,664	(4,303,216)	22,198,448
Raw materials and supplies	15,442,327	(1,296,048)	14,146,279	15,222,937	(1,525,583)	13,697,354
Materials in transit	1,425,828	-	1,425,828	1,177,058	-	1,177,058
<b>Total</b>	<b>56,737,864</b>	<b>(4,982,999)</b>	<b>51,754,865</b>	<b>59,022,026</b>	<b>(7,396,152)</b>	<b>51,625,874</b>

Inventories recognized as an expense for the year ended December 31, 2024 amount to ₩181,242,363 million and 2023: ₩177,539,372 million, respectively. The amount includes a loss on the valuation of inventories.

## 9. Investments in Associates and Joint Ventures

(A) Changes in investments in associates and joint ventures for the years ended December 31, 2024 and 2023 are as follows:

(In millions of Korean won)	2024	2023
Balance as of January 1	11,767,444	10,893,869
Acquisition	11,710	78,690
Disposal	(33,208)	(33,464)
Share of profit	751,044	887,550
Other <sup>(*)</sup>	95,127	(59,201)
<b>Balance as of December 31</b>	<b>12,592,117</b>	<b>11,767,444</b>

<sup>(\*)</sup> Other consists of dividends, (reversal of) impairment, and reclassification.

(B) Major investments in associates and joint ventures as of December 31, 2024 are as follows:

(1) Investments in associates

Investee	Nature of relationship with associate	Percentage of ownership (%) <sup>(*)</sup>	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 Information Technology services including computer programming, system integration and management and logistical services	22.6	Korea	December
Samsung Biologics Co., Ltd.	Investment in new business	31.2	Korea	December
Samsung SDI Co., Ltd. <sup>(*)</sup>	Manufacture and supply electronic parts including secondary cell batteries	19.6	Korea	December
Cheil Worldwide, Inc.	Advertising agency	25.2	Korea	December

<sup>(\*)</sup> Ownership represents the Company's ownership of the ordinary shares issued by each entity.

<sup>(\*)</sup> The Company's ownership of ordinary shares outstanding is 20.6%.

(2) Investments in joint ventures

<b>Investee</b>	<b>Nature of relationship with joint venture</b>	<b>Percentage of ownership (%)<sup>(*)</sup></b>	<b>Principal business location</b>	<b>Fiscal period-end</b>
Samsung Corning	Manufacture and supply industrial glass products	50.0	Korea	December
Advanced Glass, LLC				

(\*) Ownership represents the Company's ownership of the ordinary shares issued by each entity.

(C) Details of investments in associates and joint ventures as of December 31, 2024 and 2023 are as follows:

(1) Investments in associates

(In millions of Korean won)

**December 31, 2024**

<b>Investee</b>	<b>Acquisition cost</b>	<b>Net asset value of</b>	
		<b>equity shares<sup>(*)</sup></b>	<b>Carrying amount</b>
Samsung Electro-Mechanics Co., Ltd.	359,237	2,058,412	2,067,669
Samsung SDS Co., Ltd.	147,963	2,108,195	2,120,417
Samsung Biologics Co., Ltd.	1,424,358	3,403,947	3,406,062
Samsung SDI Co., Ltd.	1,242,605	3,979,333	2,923,991
Cheil Worldwide, Inc.	506,162	418,029	718,561
Other	674,721	844,623	1,131,648
<b>Total</b>	<b>4,355,046</b>	<b>12,812,539</b>	<b>12,368,348</b>

(\*) 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, 2023**

<b>Investee</b>	<b>Acquisition cost</b>	<b>Net asset value of</b>	
		<b>equity shares<sup>(*)</sup></b>	<b>Carrying amount</b>
Samsung Electro-Mechanics Co., Ltd.	359,237	1,837,925	1,841,393
Samsung SDS Co., Ltd.	147,963	1,955,699	1,966,206
Samsung Biologics Co., Ltd.	1,424,358	3,068,636	3,073,595
Samsung SDI Co., Ltd.	1,242,605	3,726,675	2,912,564
Cheil Worldwide, Inc.	506,162	368,875	669,363
Other	690,481	844,645	1,093,799

<b>Total</b>	<b>4,370,806</b>	<b>11,802,455</b>	<b>11,556,920</b>
--------------	------------------	-------------------	-------------------

(\*) The Company's portion of net asset value of associates is based on the Company's percentage of ownership.

(2) Investments in joint ventures

<i>(In millions of Korean won)</i>		<b>December 31, 2024</b>	
<b>Investee</b>	<b>Acquisition cost</b>	<b>Net asset value of</b>	
		<b>equity shares (*)</b>	<b>Carrying amount</b>
Samsung Corning Advanced Glass LLC	215,000	143,198	143,178
Other	259,994	74,075	80,591
<b>Total</b>	<b>474,994</b>	<b>217,273</b>	<b>223,769</b>

(\*) The Company's portion of net asset value of joint ventures is based on the Company's percentage of ownership.

<i>(In millions of Korean won)</i>		<b>December 31, 2023</b>	
<b>Investee</b>	<b>Acquisition cost</b>	<b>Net asset value of</b>	
		<b>equity shares (*)</b>	<b>Carrying amount</b>
Samsung Corning Advanced Glass LLC	215,000	138,939	138,938
Other	259,994	72,215	71,586
<b>Total</b>	<b>474,994</b>	<b>211,154</b>	<b>210,524</b>

(\*) The Company's portion of net asset value of joint ventures is based on the Company's percentage of ownership.

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

(1) For the year ended December 31, 2024

<i>(In millions of Korean won)</i>	<b>Balance as of January 1</b>	<b>Share of profit</b>	<b>Share of other comprehensive income (loss)</b>	<b>Other<sup>(*)</sup></b>	<b>Balance as of December 31</b>
Samsung Electro-Mechanics Co., Ltd.	1,841,393	164,841	81,782	(20,347)	2,067,669
Samsung SDS Co., Ltd.	1,966,206	172,708	28,678	(47,175)	2,120,417
Samsung Biologics Co., Ltd.	3,073,595	336,256	(3,789)	-	3,406,062
Samsung SDI Co., Ltd.	2,912,564	(37,454)	62,344	(13,463)	2,923,991
Cheil Worldwide, Inc.	669,363	59,476	21,954	(32,232)	718,561
Samsung Corning Advanced Glass LLC	138,938	4,389	(130)	(19)	143,178

Other	1,165,385	50,828	42,908	(46,882)	1,212,239
<b>Total</b>	<b>11,767,444</b>	<b>751,044</b>	<b>233,747</b>	<b>(160,118)</b>	<b>12,592,117</b>

(\*) Other includes acquisitions, disposals, and dividends.

(2) For the year ended December 31, 2023

<i>(In millions of Korean won)</i>	<b>Balance as of January 1</b>	<b>Share of profit</b>	<b>Share of other comprehensive income (loss)</b>	<b>Other<sup>(*)</sup></b>	<b>Balance as of December 31</b>
Samsung Electro-Mechanics Co., Ltd.	1,764,249	106,455	7,844	(37,155)	1,841,393
Samsung SDS Co., Ltd.	1,870,338	154,282	(2,503)	(55,911)	1,966,206
Samsung Biologics Co., Ltd.	2,808,673	267,614	(2,692)	-	3,073,595
Samsung SDI Co., Ltd.	2,691,223	214,702	20,506	(13,867)	2,912,564
Cheil Worldwide, Inc.	649,161	53,690	(94)	(33,394)	669,363
Samsung Corning Advanced Glass LLC	137,745	1,336	(124)	(19)	138,938
Other	972,480	89,471	52,175	51,259	1,165,385
<b>Total</b>	<b>10,893,869</b>	<b>887,550</b>	<b>75,112</b>	<b>(89,087)</b>	<b>11,767,444</b>

(\*) Other includes acquisitions, disposals, and dividends.

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

- (1) Summary of condensed financial information of major associates and dividends received from associates as of December 31, 2024 and 2023 and for the years then ended are as follows:

	2024				
	Samsung Electro-Mechanics Co., Ltd.	Samsung SDS Co., Ltd.	Samsung Biologics Co., Ltd.	Samsung SDI Co., Ltd.	Cheil Worldwide, Inc.
(In millions of Korean won)					
<b>1. Condensed financial information</b>					
<b>Condensed statements of financial position:</b>					
Current assets	5,891,746	9,003,787	5,518,118	10,334,313	2,754,194
Non-current assets	6,900,656	4,234,543	11,818,179	30,263,032	568,459
Current liabilities	3,056,861	2,495,409	3,853,188	10,855,694	1,594,190
Non-current liabilities	719,688	1,037,472	2,578,432	8,174,413	251,659
Non-controlling interests	226,693	372,330	-	1,800,842	18,806
<b>Condensed statements of comprehensive income:</b>					
Revenue	10,294,103	13,828,232	4,547,322	16,592,249	4,344,257
Profit from continuing operations, net of tax <sup>(*)1</sup>	640,865	756,997	1,083,316	544,239	207,515
Profit from discontinued operations, net of tax <sup>(*)1</sup>	38,265	-	-	55,051	-
Other comprehensive income (loss) <sup>(*)1</sup>	349,340	144,625	(9,132)	722,676	76,571
Total comprehensive income <sup>(*)1</sup>	1,028,470	901,622	1,074,184	1,321,966	284,086
<b>2. Reconciliation to the carrying amount of investments in associates</b>					
Net assets (a)	8,789,161	9,333,119	10,904,676	19,766,396	1,457,998
Ownership percentage (b) <sup>(*)2</sup>	23.4%	22.6%	31.2%	20.1%	28.7%
Net assets of equity shares (a x b)	2,058,412	2,108,195	3,403,947	3,979,333	418,029
Goodwill	7,081	26,801	3,645	-	298,779
Intercompany transactions and other <sup>(*)3</sup>	2,176	(14,579)	(1,530)	(1,055,342)	1,753
Carrying amount of associates	2,067,669	2,120,417	3,406,062	2,923,991	718,561
<b>3. Dividends from associates</b>					
Dividends	20,347	47,175	-	13,463	32,232

<sup>(\*)1</sup> Profit (loss) attributable to owners of the investee.

<sup>(\*)2</sup> Ownership percentage includes ordinary and preference shares.

<sup>(\*)3</sup> Consists of unrealized gains and losses and other differences.

(In millions of Korean won)	<b>Samsung Electr</b>				
	<b>o-</b>				
	<b>Mechanics Co., Ltd.</b>	<b>Samsung SDS Co., Ltd.</b>	<b>Samsung Biologics Co., Ltd.</b>	<b>Samsung SDI Co., Ltd.</b>	<b>Cheil Worldwide, Inc.</b>

### **1. Condensed financial information**

#### **Condensed statements of financial position:**

Current assets	5,208,418	8,160,300	5,521,988	9,187,029	2,372,420
Non-current assets	6,449,453	4,160,724	10,524,209	24,851,831	517,085
Current liabilities	2,900,460	2,391,861	4,157,861	8,518,933	1,375,034
Non-current liabilities	727,087	953,592	2,057,844	5,612,677	216,707
Non-controlling interests	182,613	317,562	-	1,395,877	11,206

#### **Condensed statements of comprehensive income:**

Revenue	8,892,412	13,276,844	3,694,589	21,436,788	4,138,275
Profit from continuing operations, net of tax <sup>(*)1</sup>	449,857	693,422	857,691	1,921,820	187,302
Profit (loss) from discontinued operations,	(26,900)	-	-	87,387	-
net of tax <sup>(*)1</sup>					
Other comprehensive income (loss) <sup>(*)1</sup>	45,053	(11,085)	(11,673)	85,394	3,685
Total comprehensive income <sup>(*)1</sup>	468,010	682,337	846,018	2,094,601	190,987

### **2. Reconciliation to the carrying amount of investments in associates**

Net assets (a)	7,847,711	8,658,009	9,830,492	18,511,373	1,286,558
Ownership percentage (b) <sup>(*)2</sup>	23.4%	22.6%	31.2%	20.1%	28.7%
Net assets of equity shares (a x b)	1,837,925	1,955,699	3,068,636	3,726,675	368,875
Goodwill	7,081	26,801	3,645	-	298,779
Intercompany transactions and other <sup>(*)3</sup>	(3,613)	(16,294)	1,314	(814,111)	1,709
Carrying amount of associates	1,841,393	1,966,206	3,073,595	2,912,564	669,363

### **3. Dividends from associates**

Dividends	37,155	55,911	-	13,867	33,394
-----------	--------	--------	---	--------	--------

(\*) Profit (loss) attributable to owners of the investee.

(\*\*) Ownership percentage includes ordinary and preference shares.

(\*\*\*) Consists of unrealized gains and losses and other differences.

- (2) Summary of condensed financial information of major joint ventures and dividends received from joint ventures as of December 31, 2024 and 2023 and for the years then ended are as follows:

<i>(In millions of Korean won)</i>	<b>Samsung Corning Advanced Glass, LLC</b>	
	<b>2024</b>	<b>2023</b>
<b>1. Condensed financial information</b>		
<b>Condensed statements of financial position:</b>		
Current assets	120,786	116,372
Non-current assets	199,017	185,100
Current liabilities	33,294	22,684
Non-current liabilities	113	911
<b>Condensed statements of comprehensive income:</b>		
Revenue	160,202	122,446
Profit from continuing operations, net of tax (*)	8,778	2,672
Other comprehensive income (loss)(*)	-	-
Total comprehensive income (loss)(*)	-	-
<b>2. Reconciliation to the carrying amount of investments in joint ventures</b>		
Net assets (a)	286,396	277,877
Ownership percentage (b)	50.0%	50.0%
Net assets of equity shares (a x b)	143,198	138,939
Intercompany transactions and other (**)	(20)	(1)
Carrying amount of joint ventures	143,178	138,938
<b>3. Dividends from joint ventures</b>		
Dividends	-	-

(\*) Profit (loss) attributable to owners of the parent company.

(\*\*) Consists of unrealized gains and losses and other differences.

- (1) Profit (loss) attributable to owners of the parent company from associates and joint ventures which are not individually material for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	2024		2023	
	Associates	Joint ventures	Associates	Joint ventures
Profit from continuing operations	48,408	2,420	87,072	2,399
Other comprehensive income	39,152	3,756	50,260	1,915
<b>Total comprehensive income</b>	<b>87,560</b>	<b>6,176</b>	<b>137,332</b>	<b>4,314</b>

- (F) Fair value of marketable investments in associates as of December 31, 2024 and 2023 is as follows:

<i>(In millions of Korean won and number of shares)</i>	December 31, 2024		December 31, 2023
	Number of shares held	Market value	Market value
Samsung Electro-Mechanics Co., Ltd.	17,693,084	2,190,404	2,710,580
Samsung SDS Co., Ltd.	17,472,110	2,232,936	2,970,259
Samsung Biologics Co., Ltd.	22,217,309	21,084,226	16,885,155
Samsung SDI Co., Ltd.	13,462,673	3,332,012	6,354,382
Cheil Worldwide, Inc.	29,038,075	492,195	552,595

(G) Other matters

- (1) 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 W 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, 2020, 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, 2020, the Korea Securities and Futures Commission appealed the decision and the litigation is in progress at Seoul High Court. On August 14, 2024, Seoul Administrative Court announced a decision to cancel the second measure charged by the Korea Securities and Futures Commission, but on August 28, 2024, the Korea Securities and Futures Commission appealed the decision 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 measures, 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 the 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 to December 31, 2022, 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 consolidated financial statements of the current period.

- (2) The Company's board of directors decided to exercise call options so as to acquire 3.94 million shares of Rainbow Robotics Inc., a Company's associate, from six shareholders including the largest shareholder on December 31, 2024. The aggregate exercise price is ₩267,463 million, and will be paid upon completion of relevant government administrative procedures.

## 10. Property, Plant and Equipment

(A) Changes in property, plant and equipment for the years ended December 31, 2024 and 2023 are as follows:

2024						
(In millions of Korean won)	Land	Buildings and structures	Machinery and equipment	Construction in progress	Other	Total
Balance as of January 1	9,999,377	43,238,115	83,309,168	46,720,328	3,989,274	187,256,262
Acquisition cost	10,157,963	73,689,951	328,561,492	46,720,328	14,058,654	473,188,388
Accumulated depreciation and impairment	(158,586)	(30,451,836)	(245,252,324)	-	(10,069,380)	(285,932,126)
Acquisitions and capital expenditures <sup>(*1)</sup>	244,885	7,057,644	40,219,596	5,073,120	2,346,943	54,942,188
Acquisitions through business combinations	-	49	-	-	131	180
Depreciation	(50,029)	(4,268,335)	(33,744,595)	-	(1,587,023)	(39,649,982)
Disposals/scrap	(27,321)	(293,418)	(44,567)	(21)	(30,537)	(395,864)
Impairment	-	(231,562)	(113,246)	(50,373)	(1,256)	(396,437)
Other <sup>(*2)</sup>	81,316	1,529,452	1,280,217	1,374,201	(76,324)	4,188,862
<b>Balance as of December 31</b>	<b>10,248,228</b>	<b>47,031,945</b>	<b>90,906,573</b>	<b>53,117,255</b>	<b>4,641,208</b>	<b>205,945,209</b>
Acquisition cost	10,435,001	82,415,394	373,276,338	53,117,255	15,852,084	535,096,072
Accumulated depreciation and impairment	(186,773)	(35,383,449)	(282,369,765)	-	(11,210,876)	(329,150,863)

(\*1) Acquisition cost and capital expenditures include amounts reclassified from constructions in progress. Capitalized borrowing costs amount to ₩515,824 million and the capitalization interest rate used to calculate the capitalized borrowing costs ranged from 4.2%~5.9%.

(\*2) Other includes effects of changes in foreign currency exchange rates.

2023						
(In millions of Korean won)	Land	Buildings and structures	Machinery and equipment	Construction in progress	Other	Total
Balance as of January 1	9,892,167	40,706,918	79,714,631	33,607,564	4,124,108	168,045,388

Acquisition cost	10,024,569	67,713,808	303,000,627	33,607,564	13,248,490	427,595,058
Accumulated depreciation and impairment	(132,402)	(27,006,890)	(223,285,996)	-	(9,124,382)	(259,549,670)
Acquisitions and capital expenditures <sup>(*)1</sup>	172,262	6,498,611	33,641,691	13,141,766	1,462,032	54,916,362
Acquisitions through business combinations	-	18,125	20,140	34,698	165	73,128
Depreciation	(49,367)	(3,884,333)	(30,031,617)	-	(1,567,094)	(35,532,411)
Disposals/scrap	(25,934)	(181,700)	(37,681)	(256)	(30,547)	(276,118)
Impairment	-	(30,864)	(47,044)	-	(7,449)	(85,357)
Reclassification to held-for-sale	(6,615)	(54,318)	(37,101)	(6,255)	(14,100)	(118,389)
Other <sup>2</sup>	16,864	165,676	86,149	(57,189)	22,159	233,659
<b>Balance as of December 31</b>	<b>9,999,377</b>	<b>43,238,115</b>	<b>83,309,168</b>	<b>46,720,328</b>	<b>3,989,274</b>	<b>187,256,262</b>
Acquisition cost	10,157,963	73,689,951	328,561,492	46,720,328	14,058,654	473,188,388
Accumulated depreciation and impairment	(158,586)	(30,451,836)	(245,252,324)	-	(10,069,380)	(285,932,126)

(<sup>\*</sup>1) Acquisition cost and capital expenditures include amounts reclassified from constructions in progress. Capitalized borrowing costs amount to ₩204,814 million and the capitalization interest rate used to calculate the capitalized borrowing costs ranged from 3.9%~5.8%.

(<sup>\*</sup>2) Other includes effects of changes in foreign currency exchange rates and effects of the deduction of government grants.

(B) Changes in the right-of-use assets included in the property, plant and equipment for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	2024				
	Land	Buildings and structures	Machinery and equipment	Other	Total
Balance as of January 1	481,610	4,034,052	137,574	795,796	5,449,032
Acquisition	22,407	975,685	89,158	208,838	1,296,088
Depreciation	(49,939)	(940,196)	(59,946)	(166,338)	(1,216,419)
Cancellation of contracts	(8,816)	(175,484)	(184)	(15,893)	(200,377)
Other <sup>(*)</sup>	34,785	261,502	11,578	24,696	332,561
<b>Balance as of December 31</b>	<b>480,047</b>	<b>4,155,559</b>	<b>178,180</b>	<b>847,099</b>	<b>5,660,885</b>

(<sup>\*</sup>) Other includes effects of changes in foreign currency exchange rates.

2023

<i>(In millions of Korean won)</i>	<b>Land</b>	<b>Buildings and structures</b>	<b>Machinery and equipment</b>	<b>Other</b>	<b>Total</b>
Balance as of January 1	503,203	3,451,596	175,151	787,659	4,917,609
Acquisition	38,677	1,594,886	10,058	158,842	1,802,463
Depreciation	(49,367)	(871,275)	(47,174)	(147,178)	(1,114,994)
Cancellation of contracts	(12,461)	(174,426)	(279)	(6,904)	(194,070)
Reclassification to held-for-sale	(4,305)	(17)	-	(414)	(4,736)
Other <sup>(*)</sup>	5,863	33,288	(182)	3,791	42,760
<b>Balance as of December 31</b>	<b>481,610</b>	<b>4,034,052</b>	<b>137,574</b>	<b>795,796</b>	<b>5,449,032</b>

<sup>(\*)</sup> Other includes effects of changes in foreign currency exchange rates.

(C) Details of depreciation of property, plant and equipment for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Cost of sales	35,084,501	31,647,926
Selling and administrative expenses and other	4,565,481	3,884,485
<b>Total</b>	<b>39,649,982</b>	<b>35,532,411</b>

## 11. Intangible Assets

(A) Changes in intangible assets for the years ended December 31, 2024 and 2023 are as follows:

(In millions of Korean won)	2024					
	Intellectual property rights	cost	Membership	Goodwill	Other	Total
Balance as of January 1	4,424,566	-	256,859	6,457,619	11,602,818	22,741,862
Acquisitions	357,137	-	16,763	-	2,262,202	2,636,102
Acquisition through business combinations	-	-	-	145,254	34,572	179,826
Amortization	(289,623)	-	-	-	(2,691,217)	(2,980,840)
Disposals/scrap	(37,376)	-	(209)	-	(16,543)	(54,128)
Impairment	(25,340)	-	(864)	-	-	(26,204)
Other <sup>(*)</sup>	360,002	-	349	565,668	315,929	1,241,948
<b>Balance as of December 31</b>	<b>4,789,366</b>	-	<b>272,898</b>	<b>7,168,541</b>	<b>11,507,761</b>	<b>23,738,566</b>

<sup>(\*)</sup> Other includes the cumulative effect of changes in foreign currency exchange rates and others.

(In millions of Korean won)	2023					
	Intellectual property rights	cost	Membership	Goodwill	Other	Total
Balance as of January 1	4,278,750	85,018	253,554	6,014,422	9,586,010	20,217,754
Acquisitions	401,561	-	6,251	-	4,608,488	5,016,300
Acquisition through business combinations	3,944	-	-	315,136	37,758	356,838
Amortization	(276,781)	(85,018)	-	-	(2,772,349)	(3,134,148)
Disposals/scrap	(41,492)	-	(8,656)	-	(44)	(50,192)
Impairment	(6,265)	-	3,738	-	(2,900)	(5,427)
Reclassification to held-for-sale	(2)	-	-	(58,455)	(4,405)	(62,862)
Other <sup>(*)</sup>	64,851	-	1,972	186,516	150,260	403,599
<b>Balance as of December 31</b>	<b>4,424,566</b>	-	<b>256,859</b>	<b>6,457,619</b>	<b>11,602,818</b>	<b>22,741,862</b>

<sup>(\*)</sup> Other includes the cumulative effect of changes in foreign currency exchange rates and others.

(B) Goodwill

Goodwill is allocated to each cash-generating unit. Details of goodwill as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
DX	1,463,566	1,256,815
DS	176,885	164,607
SDC	380,897	343,967
Harman	5,146,242	4,691,440
Other	951	790
<b>Total</b>	<b>7,168,541</b>	<b>6,457,619</b>

The Company tests goodwill for impairment annually and the recoverable amount of each cash-generating units is determined based on value-in-use calculations. The value-in-use calculation is based on estimates of pre-tax cash flows based on financial budgets approved by management for the next five years (or longer if the medium and long-term plans are reasonable, such as in new technology business). A constant growth rate assumption (but not exceeding the industry average growth rate) has been used to calculate the perpetual cash flows for periods beyond the five-year period.

(C) Details of amortization of intangible assets for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Cost of sales	2,019,693	2,197,662
Selling and administrative expenses and other	961,147	936,486
<b>Total</b>	<b>2,980,840</b>	<b>3,134,148</b>

## 12. Borrowings

(A) Details of the carrying amounts of borrowings as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	Financial institutions	Interest rates (%)		
		as of Dec 31, 2024	December 31, 2024	December 31, 2023
<b>Short-term borrowings</b>				
Collateralized borrowings <sup>(*)1</sup>	Woori Bank and others	0.4~14.9	12,834,446	6,610,049
Non-collateralized borrowings	Citibank and others	0.0~53.0	338,058	504,552
<b>Total</b>			<b>13,172,504</b>	<b>7,114,601</b>
 <b>Current portion of long-term borrowings</b>				
Bank borrowings	BNP and others	0.0~55.3	510,756	304,082
Lease liabilities <sup>(*)2</sup>	CSSD and others	4.6	1,100,526	998,439
<b>Total</b>			<b>1,611,282</b>	<b>1,302,521</b>
 <b>Long-term borrowings</b>				
Bank borrowings	BNP and others	0.0~7.4	6,537	-
Lease liabilities <sup>(*)2</sup>	CSSD and others	4.6	3,929,323	3,724,850
<b>Total</b>			<b>3,935,860</b>	<b>3,724,850</b>

(\*)1 Collateralized borrowings are secured by trade receivables.

(\*)2 Interest expenses arising from the lease liabilities for the years ended December 31, 2024 and 2023 amount to ₩223,938 million and

₩197,202 million, respectively, which were determined using the weighted average incremental borrowing rate. Short-term lease payments and low-valued asset lease payments that are not included in lease liabilities during the years ended December 31, 2024 and 2023 amount to ₩159,262 million and ₩158,395 million, respectively.

(B) Maturities of long-term borrowings outstanding as of December 31, 2024 are as follows:

<i>(In millions of Korean won)</i>	Lease liabilities
<b>Repayment in:</b>	
2025	510,756
2026	1,770
2027	1,953
2028	1,106

2029 and thereafter	1,708
<b>Total</b>	<b>517,293</b>

(C) Maturities of lease liabilities outstanding as of December 31, 2024 are as follows:

<i>(In millions of Korean won)</i>	<b>Lease liabilities</b>
<b>Repayment in:</b>	
2025	1,304,227
2026	1,047,520
2027	828,443
2028	642,638
2029 and thereafter	1,969,015
<b>Total</b>	<b>5,791,843</b>

### 13. Debentures

(A) Details of the carrying amounts of debentures as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>Issue date</b>	<b>Due date</b>	<b>Interest rate (%) as of Dec 31, 2024</b>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
US dollar denominated straight bonds <sup>(*)1</sup>	Oct. 2, 1997	Oct. 1, 2027	7.7  (US \$ 15 million)	22,050  (US \$ 20 million)	25,788
US dollar denominated debenture bonds <sup>(*)2</sup>	May 11, 2015	May 15, 2025	4.2  (US \$ 400 million)	588,000  (US \$ 400 million)	515,760
Less: Discounts				(255)	(370)
Add: Premium				743	2,794
Less: Current portion				(596,008)	(6,354)
<b>Total</b>				<b>14,530</b>	<b>537,618</b>

<sup>(\*)1</sup> 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 in arrears.

<sup>(\*)2</sup> Harman International Industries, Inc. issued US dollar denominated debenture bonds. These debentures are repaid on the maturity and

interest is paid semi-annually in arrears.

(B) Repayment schedule of debentures outstanding as of December 31, 2024 are as follows:

<i>(In millions of Korean won)</i>	<b>Debentures</b>
<b>Repayment in:</b>	
2025	595,350
2026	7,350
2027	7,350
<b>Total</b>	<b>610,050</b>

#### 14. Net Defined Benefit Liabilities (Assets)

(A) Details of net defined benefit liabilities (assets) recognized in the statements of financial position as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Present value of funded defined benefit obligations	16,965,629	15,403,976
Present value of unfunded defined benefit obligations	379,155	319,689
<b>Subtotal</b>	<b>17,344,784</b>	<b>15,723,665</b>
Fair value of plan assets	(19,912,945)	(20,172,327)
<b>Total</b>	<b>(2,568,161)</b>	<b>(4,448,662)</b>

(B) The components of defined benefit costs recognized in profit or loss for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Current service cost	1,400,834	1,294,308
Net interest income	(259,108)	(354,220)
Past service cost	(676)	4,839
Other	47,897	9,491
<b>Total</b>	<b>1,188,947</b>	<b>954,418</b>

The amount recognized as expenses of defined contribution plans for the years ended December 31, 2024 and 2023 are ₩382,391 million and ₩203,004 million, respectively.

(C) The expenses related to the defined benefit plans recognized in the statements of profit or loss for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Cost of sales	462,180	378,104
Selling and administrative expenses and other	726,767	576,314
<b>Total</b>	<b>1,188,947</b>	<b>954,418</b>

(D) Changes in the defined benefit obligations for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	15,723,665	14,010,308
Current service cost	1,400,834	1,294,308
Interest cost	840,271	805,084
Past service cost	(676)	4,839
Remeasurement:		
Actuarial gains or losses arising from changes in demographic assumptions	76,762	62,291
Actuarial gains or losses arising from changes in financial assumptions	595,095	266,505
Other	141,212	123,165
Benefits paid	(1,466,188)	(846,457)
Other <sup>(*)</sup>	33,809	3,622
<b>Balance as of December 31</b>	<b>17,344,784</b>	<b>15,723,665</b>

<sup>(\*)</sup> Other includes effects of changes in foreign currency exchange rates and reclassifications as held for sales.

(E) Changes in the fair value of plan assets for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	20,172,327	19,593,910
Interest income on plan assets	1,099,379	1,159,304

Remeasurement of plan assets	(213,636)	(654,005)
Contributions paid by the employer	114,173	746,068
Benefits paid	(1,267,778)	(687,125)
Other <sup>(*)</sup>	8,480	14,175
<b>Balance as of December 31</b>	<b>19,912,945</b>	<b>20,172,327</b>

<sup>(\*)</sup> Other includes effects of changes in foreign currency exchange rates and reclassifications as held for sales.

The reasonable estimate of the employer contributions expected to be paid in 2024 in respect of the defined benefit plans as of December 31, 2024 is ₩2,081,723 million.

(F) Plan assets as of December 31, 2024 and 2023 consist of the following:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Principal guaranteed fixed income financial instruments and other	15,685,547	18,178,623
Indirect investment instruments	4,128,450	1,908,087
Other	98,948	85,617
<b>Total</b>	<b>19,912,945</b>	<b>20,172,327</b>

(G) The principal actuarial assumptions as of December 31, 2024 and 2023 are as follows:

<i>(In percentage)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Discount rate	4.0~5.1	3.9~5.9
Salary growth rate (including the effects of inflation)	2.0~5.9	3.0~6.3

(H) The sensitivity analysis of the defined benefit obligations as of December 31, 2024 and 2023 to changes in the principal assumptions is as follows:

<b>Defined benefit obligations</b>		
<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>

<b>Discount rate</b>			
1% p increase		15,743,077	14,291,442
1% p decrease		19,203,081	17,385,125
<b>Salary growth rate</b>			
1% p increase		19,173,312	17,365,127
1% p decrease		15,736,900	14,280,988

(I) The weighted average maturity of the defined benefit obligations is 9.98 years as of December 31, 2024.

## 15. Provisions

Changes in provisions for the year ended December 31, 2024 are as follows:

<i>(In millions of Korean won)</i>	<b>Warranty (A)</b>	<b>Royalty expenses (B)</b>	<b>Long-term incentives (C)</b>	<b>Other (D, E)</b>	<b>Total</b>
Balance as of January 1	2,540,212	1,838,052	993,751	4,031,311	9,403,326
Charged to profit or loss	2,090,900	1,315,779	265,696	2,461,978	6,134,353
Payment	(2,035,240)	(532,481)	(458,731)	(1,603,945)	(4,630,397)
Other <sup>(*)</sup>	138,629	172,551	12,295	105,756	429,231
<b>Balance as of December 31</b>	<b>2,734,501</b>	<b>2,793,901</b>	<b>813,011</b>	<b>4,995,100</b>	<b>11,336,513</b>

(\*) Other includes effects of changes in foreign currency exchange rates.

- (A) The Company accrues warranty provisions 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 a three-year management performance criteria and recognizes a provision for the estimated incentive cost.
- (D) The Company records provisions for estimated losses from contracts associated with discontinued products.

(E) The Company makes provisions for the emission in excess of the emission rights held by the Company. Details of emission rights and liabilities as of December 31, 2024 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 December 31, 2024 are as follows:

<i>(In million metric tons)</i>	<b>December 31, 2024</b>
Emission rights allocated free of charge <sup>(*)</sup>	17.95
Estimated volume of emission	18.07

<sup>(\*)</sup>As of December 31, 2024, emission rights allocated free of charge for the remainder of the plan period are 16.29 million metric tons (2025: 16.29 million metric tons).

(2) Changes in the emission rights for the year ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	3,137	19,567
Increase	-	1,272
Utilization	-	(17,702)
<b>Balance as of December 31<sup>(*)</sup></b>	<b>3,137</b>	<b>3,137</b>

<sup>(\*)</sup> The quantity of emission rights is 34.23 million metric tons and there is no emission rights provided as provision of collateral as of December 31, 2024.

(3) Changes in emissions liabilities for the year ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	137	32,838
Charged to profit or loss	37	(15,210)
Utilization	-	(17,491)
<b>Balance as of December 31</b>	<b>174</b>	<b>137</b>

## 16. Commitments and Contingencies

(A) Litigation

As of December 31, 2024, 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.

#### (B) Other commitments

- (1) As of December 31, 2024, the Company has trade financing agreements, trade notes receivable discounting facilities, and loan facilities secured by accounts receivable with 27 financial institutions, including Woori Bank, with a combined limit of ₩23,536,721 million. In addition, the Company has a trade financing agreement with 22 financial institutions, including Shinhan Bank, with a limit of ₩18,172,601 million, and loan facilities with 12 banks, including Woori Bank, with a limit of ₩2,204,609 million.
- (2) As of December 31, 2024, contractual commitments for the acquisition of property, plant and equipment and intangible assets amount to ₩8,596,696 million.

### 17. Contract Liabilities

Contract liabilities from contracts with customers as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Contract liabilities <sup>(*)</sup>	13,523,368	13,327,724

<sup>(\*)</sup> Contract liabilities include advances received, accrued expenses, other current liabilities and others.

The revenue recognized for the year ended December 31, 2024 in relation to the contract liabilities carried forward as of January 1, 2024 amounts to ₩1,314,325 million.

### 18. Share Capital

As of December 31, 2024, the Company's total number of authorized shares is 25,000,000,000 shares (₩100 per share). As well as its ordinary shares, the Company also has non-cumulative preference shares that are eligible for an additional 1% cash dividend over

par value per annum compared to ordinary shares, but without voting rights. The Company has issued 5,969,782,550 shares of ordinary shares and 822,886,700 shares of preference shares as of December 31, 2024, excluding the number of retired shares. The number of shares outstanding is different from the aforementioned number of shares issued due to purchase of treasury shares. Due to the retirement of shares, the total par value of the shares issued which excludes the number of retired shares 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.

<i>(Number of shares)</i>	<b>Ordinary shares outstanding</b>	<b>Preference shares outstanding</b>
As of January 1, 2023	5,969,782,550	822,886,700
Treasury shares purchased	-	-
As of December 31, 2023	5,969,782,550	822,886,700
As of January 1, 2024	5,969,782,550	822,886,700
Treasury shares purchased	(29,700,000)	(4,050,000)
As of December 31, 2024	5,940,082,550	818,836,700

## 19. Retained Earnings

(A) Retained earnings as of December 31, 2024 and 2023 consist of the following:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Discretionary reserve and other	224,424,501	208,198,003
Unappropriated retained earnings	146,088,687	138,454,235
<b>Total</b>	<b>370,513,188</b>	<b>346,652,238</b>

(B) Details of interim and year-end dividends are as follows:

(1) Interim dividends (Record date: March 31, June 30 and September 30, 2024 and 2023)

(In millions of Korean won and number of shares)

		2024	2023
	Number of shares eligible for dividends	Ordinary shares Preference shares	5,969,782,550 822,886,700
1 <sup>st</sup> Quarter	Dividend rate (based on par value)	Ordinary/Preference Ordinary shares	361% 2,155,092
	Dividend amount	Preference shares	297,062
		<b>Total</b>	2,452,154
	Number of shares eligible for dividends	Ordinary shares Preference shares	5,969,782,550 822,886,700
2 <sup>nd</sup> Quarter	Dividend rate (based on par value)	Ordinary/Preference Ordinary shares	361% 2,155,092
	Dividend amount	Preference shares	297,062
		<b>Total</b>	2,452,154
	Number of shares eligible for dividends	Ordinary shares Preference shares	5,969,782,550 822,886,700
3 <sup>rd</sup> Quarter	Dividend rate (based on par value)	Ordinary/Preference Ordinary shares	361% 2,155,092
	Dividend amount	Preference shares	297,062
		<b>Total</b>	2,452,154

(2) Year-end dividends (Record date: December 31, 2024 and 2023)

(In millions of Korean won and number of shares)

		2024	2023
	Number of shares eligible for dividends	Ordinary shares Preference shares	5,940,082,550 818,836,700
	Dividend rate (based on par value)	Ordinary shares Preference shares	363% 364%
Dividend amount		Ordinary shares Preference shares	2,156,250 298,057
			2,155,092 297,884

	<b>Total</b>	2,454,307	2,452,976
--	--------------	-----------	-----------

## 20. Other Components of Equity

(A) Other components of equity as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Gain on valuation of financial assets at fair value through other comprehensive income	2,155,315	194,419
Share of other comprehensive income of associates and joint ventures	424,575	185,144
Foreign currency translation differences for foreign operations	18,614,960	3,651,112
Remeasurement of net defined benefit assets	(3,596,943)	(2,849,526)
Treasury shares	(1,811,775)	-
Other	86,876	98,981
<b>Total</b>	<b>15,873,008</b>	<b>1,280,130</b>

(B) Treasury shares as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won and number of shares)</i>	<b>2024</b>	<b>2023</b>
Number of treasury shares purchased		
Ordinary shares	29,700,000	-
Preference shares	4,050,000	-
Acquisition cost		
Ordinary shares	1,625,252	-
Preference shares	186,523	-

## 21. Expenses by Nature

Expenses by nature for the years ended December 31, 2024 and 2023 are as follows:

(In millions of Korean won)

2024

2023

Changes in finished goods, work in process, and other	571,892	(644,905)
Raw materials used, merchandise purchased, and other	93,861,545	96,219,181
Wages and salaries	32,877,167	30,405,245
Post-employment benefit	1,571,338	1,157,422
Depreciation	39,649,982	35,532,411
Amortization	2,980,840	3,134,148
Welfare	6,823,800	6,472,979
Utilities	8,403,851	7,502,408
Outsourcing	7,822,607	7,058,833
Advertising	5,428,555	5,213,896
Sales promotion	7,300,311	6,894,395
Other	60,853,054	53,422,505
<b>Total<sup>(*)</sup></b>	<b>268,144,942</b>	<b>252,368,518</b>

(\*) Equal to sum of cost of sales and selling and administrative expenses in the consolidated statements of profit or loss.

## 22. Selling and Administrative Expenses

Selling and administrative expenses for the years ended December 31, 2024 and 2023 are as follows:

(In millions of Korean won)

2024

2023

### Selling and administrative expenses

Wages and salaries	8,647,408	8,324,562
Post-employment benefit	453,164	299,369
Commissions	8,807,740	8,753,442
Depreciation	1,689,079	1,649,335
Amortization	716,646	688,786
Advertising	5,428,555	5,213,896

Sales promotion	7,300,311	6,894,395
Transportation	2,960,237	1,721,614
Service	3,843,980	3,968,816
Other	6,737,412	6,125,999
<b>Subtotal</b>	<b>46,584,532</b>	<b>43,640,214</b>
<b>Research and development expenses</b>		
Research and development	34,998,142	28,339,724
<b>Total</b>	<b>81,582,674</b>	<b>71,979,938</b>

### 23. Other Non-Operating Income and Expenses

Details of other non-operating income and expenses for the years ended December 31, 2024 and 2023 are as follows:

(In millions of Korean won)	2024	2023
<b>Other non-operating income</b>		
Dividend income	134,952	164,203
Rental income	155,928	150,273
Gain on disposal of property, plant and equipment	81,647	104,663
Other	1,587,811	761,309
<b>Total</b>	<b>1,960,338</b>	<b>1,180,448</b>

(In millions of Korean won)	2024	2023
<b>Other non-operating expenses</b>		
Loss on disposal of property, plant and equipment	124,018	85,799
Donations	216,219	243,377
Other	1,284,992	754,151
<b>Total</b>	<b>1,625,229</b>	<b>1,083,327</b>

## 24. Financial Income and Expenses

Details of financial income and expenses for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
<b>Financial income</b>		
Interest income	4,819,128	4,358,022
Financial assets measured at amortized cost	4,818,923	4,357,792
Financial assets measured at fair value through profit or loss	205	230
Foreign exchange differences	10,997,621	10,608,661
Gain from derivatives	886,555	1,133,465
<b>Total</b>	<b>16,703,304</b>	<b>16,100,148</b>
<b>Financial expenses</b>		
Interest expenses	903,918	930,253
Financial liabilities measured at amortized cost	176,503	510,865
Other financial liabilities	727,415	419,388
Foreign exchange differences	11,360,618	10,711,058
Loss from derivatives	721,148	1,004,219
<b>Total</b>	<b>12,985,684</b>	<b>12,645,530</b>

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

## 25. Income Tax Expense

(A) Income tax expense for the years ended December 31, 2024 and 2023 consists of the following:

*(In millions of Korean won)*

	2024	2023
<b>Current taxes</b>		
Current tax on profits for the year	6,302,022	5,660,505
Global minimum top-up tax	429,824	-
Adjustments recognized in the current year	642,014	(725,524)
<b>Subtotal</b>	<b>7,373,860</b>	<b>4,934,981</b>
<b>Deferred taxes</b>		
Changes in deferred taxes arising from unused tax credits	(5,228,946)	(5,346,657)
Changes in deferred taxes arising from temporary differences	(196,702)	(3,061,001)
Changes in deferred taxes arising from unused tax losses	1,023,962	(1,041,996)
Other	106,209	33,838
<b>Subtotal</b>	<b>(4,295,477)</b>	<b>(9,415,816)</b>
<b>Income tax expense</b>	<b>3,078,383</b>	<b>(4,480,835)</b>

(B) The difference between the income tax expense on the Company's profit before tax and the theoretical amount computed using the weighted-average tax rate applicable to the profit before tax of each of the Company's entities is as follows:

*(In millions of Korean won)*

	2024	2023
<b>Profit before income tax</b>		
	37,529,734	11,006,265
<b>Tax calculated at weighted average of applicable tax rates<sup>(*)</sup></b>	<b>8,629,708</b>	<b>1,901,195</b>
<b>Adjustments:</b>		
Permanent differences	(220,405)	219,374
Temporary differences for which no deferred income tax was recognized	(14,079)	(12,588)
Tax credits and exemptions	(6,566,360)	(6,706,820)
Results of interest in subsidiaries, etc.	759,731	(389,305)
Impact of changes in tax rates	(12,943)	(3,926)
Global minimum top-up tax	429,824	-
Other	72,907	511,235
<b>Subtotal</b>	<b>(5,551,325)</b>	<b>(6,382,030)</b>
<b>Income tax expense</b>	<b>3,078,383</b>	<b>(4,480,835)</b>

(\*) The statutory tax rate is the weighted average of the statutory tax rates applicable to the Company's year-end profits as of December 31, 2024 and 2023, which vary by tax jurisdictions.

(C) The movement in deferred income tax assets and liabilities for the years ended December 31, 2024 and 2023 are as follows:

	2024			2023		
	Balance		Balance	Balance		Balance
	as of	Increase	as of	as of	Increase	as of
<i>(In millions of Korean won)</i>	<b>January 1</b>	<b>(Decrease)</b>	<b>December 31</b>	<b>January 1</b>	<b>(Decrease)</b>	<b>December 31</b>
<b>Deferred tax arising from temporary differences</b>						
Revaluation of land	(898,687)	1,998	(896,689)	(898,505)	(182)	(898,687)
Investments in subsidiaries, associates and joint ventures <sup>(*)</sup>	(4,902,607)	(975,243)	(5,877,850)	(4,960,247)	57,640	(4,902,607)
Accumulated depreciation and other	(1,883,690)	741,224	(1,142,466)	(2,566,535)	682,845	(1,883,690)
Accrued income	67,722	(29,641)	38,081	39,680	28,042	67,722
Provisions, accrued expenses, and other	7,142,616	249,150	7,391,766	5,219,130	1,923,486	7,142,616
Foreign currency translation	172,903	72,746	245,649	185,900	(12,997)	172,903
Asset impairment losses	235,745	839	236,584	234,734	1,011	235,745
Other	(588,545)	135,629	(452,916)	(969,702)	381,157	(588,545)
<b>Subtotal</b>	<b>(654,543)</b>	<b>196,702</b>	<b>(457,841)</b>	<b>(3,715,545)</b>	<b>3,061,002</b>	<b>(654,543)</b>
<b>Deferred tax arising from tax losses</b>						
Unused tax losses	1,318,354	(1,023,962)	294,392	276,358	1,041,996	1,318,354
<b>Deferred tax arising from unused tax credits</b>						
Unused tax credits	8,093,087	5,228,946	13,322,033	2,746,430	5,346,657	8,093,087
<b>Deferred tax recognized in equity</b>						
Loss on valuation of financial assets at fair value through other comprehensive income and other	(206,835)	(563,985)	(770,820)	(50,392)	(156,443)	(206,835)
Remeasurement of net defined benefit liabilities	1,041,185	279,288	1,320,473	733,135	308,050	1,041,185
<b>Subtotal</b>	<b>834,350</b>	<b>(284,697)</b>	<b>549,653</b>	<b>682,743</b>	<b>151,607</b>	<b>834,350</b>
<b>Net deferred tax assets (liabilities)</b>	<b>9,591,248</b>	<b>4,116,989</b>	<b>13,708,237</b>	<b>(10,014)</b>	<b>9,601,262</b>	<b>9,591,248</b>
Deferred tax assets	10,211,797	4,024,671	14,236,468	5,101,318	5,110,479	10,211,797
Deferred tax liabilities	(620,549)	92,318	(528,231)	(5,111,332)	4,490,783	(620,549)

(\*) Deferred tax assets are not recognized if it is probable that the temporary differences will not reverse in the foreseeable future for investments in subsidiaries, associates and joint ventures.

The Company assessed that it is probable that deferred tax asset will be realized to the extent that the Company's expected average annual taxable losses and tax credits that can be utilized in each accounting period. However, the following temporary differences have not been recognized for tax purposes as it is not probable that they will be realized in the future as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Unused tax losses	583,820	597,176
Unused tax credits	75,679	118,694

Expected expiry dates of unused tax losses and credits for which no deferred tax asset is recognized are as follows:

<i>(In millions of Korean won)</i>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028 and after</b>
Unused tax losses	82,248	5,675	5,675	490,222
Unused tax credits	3,088	1,115	54,628	16,848

(D) Details of the period when the deferred tax assets (liabilities) are expected to be recovered (settled) as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Deferred tax assets		
Deferred tax assets to be recovered within 12 months	219,670	9,392,311
Deferred tax assets to be recovered after 12 months	14,016,798	819,485
Subtotal	<b>14,236,468</b>	<b>10,211,796</b>
Deferred tax liabilities		
Deferred tax liabilities to be settled after 12 months	(528,231)	(620,549)
<b>Total</b>	<b>13,708,237</b>	<b>9,591,247</b>

(E) Global minimum top-up tax

The Company is required to pay additional tax for the difference between global minimum top-up tax rate of 15% and GloBE effective tax rate of each country where its constituent companies are domiciled in accordance with the Pilar Two. As Vietnam's GloBE effective tax rate is less than 15% and Qualified Domestic Minimum Top-up Tax (QDMTT) comes into effect, the Company recognizes the Pilar Two corporate income tax as current tax expense, while subsidiaries in other countries are expected to have no or minimal impact under the Pilar Two. The Company has applied the temporary exemption for recognition and disclosure of the relevant deferred tax assets (liabilities).

## 26. Earnings per Share

(A) Basic earnings per share

Basic earnings per share for the years ended December 31, 2024 and 2023 are calculated as follows:

(1) Ordinary shares

<i>(In millions of Korean won, thousands of number of shares)</i>	<b>2024</b>	<b>2023</b>
Profit for the year attributable to owners of the parent company	33,621,363	14,473,401
Profit for the year available for ordinary shares	29,547,625	12,719,321
Weighted-average number of ordinary shares outstanding	5,969,672	5,969,783
<b>Basic earnings per ordinary share (in Korean won)</b>	<b>4,950</b>	<b>2,131</b>

(2) Preference shares

<i>(In millions of Korean won, thousands of number of shares)</i>	<b>2024</b>	<b>2023</b>
Profit for the year attributable to owners of the parent company	33,621,363	14,473,401
Profit for the year available for preference shares	4,073,738	1,754,080
Weighted-average number of preference shares outstanding	822,871	822,887
<b>Basic earnings per preference share (in Korean won)</b>	<b>4,951</b>	<b>2,132</b>

(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 years ended December 31, 2024 and 2023.

## 27. 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 years ended December 31, 2024 and 2023 are as follows:

- Adjustments

<i>(In millions of Korean won)</i>	2024	2023
Adjustments:		
Income tax expense (income)	3,078,383	(4,480,835)
Financial income	(7,412,419)	(6,156,093)
Financial expenses	3,879,286	3,076,837
Post-employment benefits	1,571,338	1,157,422
Depreciation	39,649,982	35,532,411
Amortization	2,980,840	3,134,148
Bad debt expense	61,705	62,964
Dividend income	(134,952)	(164,203)
Share of profit of associates and joint ventures	(751,044)	(887,550)
Gain on disposal of property, plant and equipment	(81,647)	(104,663)
Loss on disposal of property, plant and equipment	124,018	85,799
(Reversal of) loss on valuation of inventories and others	(527,092)	5,037,579
Other	508,681	225,718
<b>Total</b>	<b>42,947,079</b>	<b>36,519,534</b>

- Changes in assets and liabilities arising from operating activities

(In millions of Korean won)

2024

2023

Changes in assets and liabilities :

Increase in trade receivables	(2,496,105)	(90,243)
Decrease (increase) in other receivables	(642,629)	325,894
Increase in prepaid expenses	(369,269)	(390,636)
Decrease (increase) in inventories	2,541,364	(3,206,615)
Increase (decrease) in trade payables	(2,573,560)	318,432
Increase in other payables	1,035,043	785,534
Increase in advances received	235,827	138,188
Increase (decrease) in withholdings	65,954	(411,028)
Decrease in accrued expenses	(156,596)	(3,704,020)
Increase in provisions	1,503,956	1,566,904
Payment of post-employment benefits	(1,697,139)	(938,691)
Decrease in external reserve assets	1,153,605	100,384
Other	(168,008)	47,152
<b>Total</b>	<b>(1,567,557)</b>	<b>(5,458,745)</b>

(B) Significant non-cash investing and financing transactions for the years ended December 31, 2024 and 2023 are as follows:

(In millions of Korean won)

2024

2023

Valuation of financial assets at fair value through other comprehensive income	3,106,853	1,548,022
Valuation of investments in associates and joint ventures	233,746	75,112
Reclassification of construction in progress to property, plant and equipment	48,452,108	39,749,735
New lease contracts established	1,296,088	1,802,463
Reclassification of current portion of debentures and long-term borrowings	2,207,290	1,308,875

(C) Changes in liabilities arising from financing activities for the years ended December 31, 2024 and 2023 are as follows:

(1) 2024

(In millions of Korean won)	As of January 1	Cash flows from financing activities	Non-cash transactions		As of December 31
			New lease contracts	Other <sup>(*)</sup>	
Short-term borrowings	7,114,601	5,871,346	-	186,557	13,172,504
Debentures and long-term borrowings	5,571,343	(959,554)	1,296,088	249,803	6,157,680
<b>Total</b>	<b>12,685,944</b>	<b>4,911,792</b>	<b>1,296,088</b>	<b>436,360</b>	<b>19,330,184</b>

(\*) Other includes accrued interest and effects of changes in foreign currency exchange rates.

(2) 2023

(In millions of Korean won)	As of January 1	Cash flows from financing activities	Non-cash transactions		As of December 31
			New lease contracts	Other <sup>(*)</sup>	
Short-term borrowings	5,147,315	2,145,400	-	(178,114)	7,114,601
Debentures and long-term borrowings	5,185,927	(864,867)	1,497,058	(246,775)	5,571,343
<b>Total</b>	<b>10,333,242</b>	<b>1,280,533</b>	<b>1,497,058</b>	<b>(424,889)</b>	<b>12,685,944</b>

(\*) Other includes accrued interest and effects of changes in foreign currency exchange rates.

For the years ended December 31, 2024 and 2023, cash outflows from repayment of the principal of lease liabilities (financial activities) amount to W1,184,788 million and W1,098,944 million, respectively, while cash outflows due to interest expenses (operating activities) in relation to the lease liabilities amount to W223,938 million and W197,202 million, respectively.

(D) The Company recorded cash inflows and outflows from short-term financial instruments with frequent transactions, large gross amounts and short-term maturities, as well as from short-term borrowings on a net basis. As of December 31, 2024, most of the Company's cash and cash equivalents consist mainly of bank deposits.

## 28. Financial Risk Management

The Company manages its financial risks with a focus on minimizing market risk, credit risk, liquidity risk and others arising from its operating activities. To this end, the Company closely monitors and responds to each risk factor.

The Company establishes global financial management standards and manages the risks by periodically measuring customer's and counterparties' financial risk, applying currency hedges, and reviewing cash flows.

The Company also manages foreign exchange risk by monitoring foreign exchange rate fluctuations through local financial centers in the major regions (United States, United Kingdom, Singapore, China, Brazil, and Russia), which act as an agent for the subsidiaries in each region to manage foreign exchange transactions. In addition, local finance centers in the major regions respond to liquidity risk through a regionally integrated financial structure.

The Company's financial assets subject to financial risk management consist of cash and cash equivalents, short-term financial instruments, financial assets at amortized cost, trade receivables and others, while its financial liabilities consist 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 through transactions in currencies other than its functional currency. The main currencies in which the Company is exposed to foreign exchange risk are the US dollar and European Euro.

The Company focuses on minimizing the impact of foreign exchange fluctuation by matching levels of assets and liabilities denominated in each foreign currency. To minimize 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 match as closely as possible cash inflows and outflows incurred in the respective foreign currencies. This reduces but does not eliminate the foreign exchange risk to which the Company is exposed. 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.

As of December 31, 2024 and 2023, the impact on profit or loss (before tax) of a 5% change in exchange rates on the Company's financial assets and financial liabilities denominated in a major foreign currency other than the functional currency would be as follows:

*(In millions of Korean won)*

**December 31, 2024**

**December 31, 2023**

	<b>Increase</b>	<b>Decrease</b>	<b>Increase</b>	<b>Decrease</b>
USD	365,273	(365,273)	418,776	(418,776)
EUR	88,649	(88,649)	151,740	(151,740)

(2) Interest rate risk

Interest rate risk for floating interest rate financial instruments can be defined as the risk of changes in the fair value of components of the statements of financial position due to changes in the market interest rates, and the risk of changes in the future cash flows of interest income and expenses arising from investing and financing activities. The Company's exposure to interest rate risk arises primarily from interest-bearing deposits and floating interest rate debt obligations, and the Company manages its exposure to interest rate risk to minimize uncertainty and cost of financing resulting from changes in interest rates.

As of December 31, 2024 and 2023, the effect on profit or loss before tax of a 1% change in interest rates on the Company's variable rate financial assets and liabilities at the reporting date would have been as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>		<b>December 31, 2023</b>	
	<b>Increase</b>	<b>Decrease</b>	<b>Increase</b>	<b>Decrease</b>
Financial assets	141,671	(141,671)	210,617	(210,617)
Financial liabilities	(5,702)	5,702	(6,197)	6,197
<b>Net effect</b>	<b>135,969</b>	<b>(135,969)</b>	<b>204,420</b>	<b>(204,420)</b>

(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 December 31, 2024 and 2023, price fluctuation of marketable equity securities (listed stocks) by 1% would result in changes in other comprehensive income (before income tax) of W76,865 million and W52,510 million, respectively, and changes in profit before tax of W862 million and W3,472 million, respectively.

(B) Credit risk

Credit risk arises during the normal course of transactions and investing activities where customers or other parties fail to discharge an obligation. The Company monitors and sets the customer's and counterparty's credit limit on a periodic basis based on their financial conditions, default history and other 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 including financial instrument transactions such as cash and cash equivalents, deposits, and derivative instruments. To minimize such risk, the Company transacts only with banks that have a strong international credit rating (S&P A and above), and new transactions with financial institutions which the Company does not have an existing relationship are subject to the completion of risk assessments prior to commencement of transactions. The Company generally enters into financial agreements without restrictions, such as debt ratio covenants, provision of collateral and/or repayment of loans/borrowings, and otherwise separate approvals are obtained.

The carrying amount of the Company's financial assets is net of impairment losses and the Company's maximum exposure to credit risk equals the carrying amount of its financial assets.

(C) Liquidity risk

Liquidity risk is the risk that a company will have difficulty in meeting all its financial obligations. The Company's main sources of liquidity are cash generated from operations and funds raised from the capital markets and financial institutions, while its main liquidity needs are for investments in production, research and development, working capital and dividends. Due to the nature of the Company's business, which involves large investments, maintaining adequate levels of liquidity is critical. The Company maintains and manages adequate liquidity through forecasting periodic cash flows, estimating required cash levels, and monitoring inflows and outflows of cash.

The Company has established Cash Pooling by region to respond effectively to liquidity risks, even when individual companies within a region are underfunded. Cash Pooling is a system that shares funds between underfunded and overfunded companies, minimizing the liquidity risk of individual companies, easing the burden of fund management, and reducing financial costs.

In addition, the Company has secured credit lines for its overseas subsidiaries by means of payment guarantees from the head office in the event of large liquidity needs, and, at the end of the period, the Company had investment grade ratings of Aa2 from Moody's and AA- from S&P, enabling it to raise funds on the capital market in a timely manner.

As of December 31, 2024 and 2023, the maturity analysis of financial liabilities, based on the remaining period from the reporting date to the contractual maturity date, is as follows:

December 31, 2024

(In millions of Korean won)

Less than ~6 months ~1 year 1 ~ 5 years More than

	<b>3 months</b>			<b>5 years</b>
Financial liabilities	55,955,211	1,369,038	1,890,467	7,659,645

**December 31, 2023**

<i>(In millions of Korean won)</i>	<b>Less than</b>	<b>More than</b>			
	<b>3 months</b>	<b>~6 months</b>	<b>~1 year</b>	<b>1 ~ 5 years</b>	<b>5 years</b>
Financial liabilities	43,302,421	589,743	1,529,785	7,811,246	2,337,792

The cash flows included in the maturity classification, based on the remaining period to the contractual maturity date, are undiscounted expected cash outflows.

The Company's derivative financial liabilities of ₩36,795 million (December 31, 2023: ₩44,252 million) has been included within the less than 3 months bucket. These are the Company's trading portfolio of derivative instruments, on a net settlement term, of which the contractual maturities are not essential for understanding its cash flows. These contracts are managed on a net fair value basis rather than by the maturity date. Net settled derivatives consist of forwards on currency rates used by the Company to manage the exchange rate profile.

Derivatives that are settled on a gross basis by the delivery of underlying items, including derivatives for hedging, will be settled within the next 35 months from the end of the reporting period. These derivatives are not included in the table above.

Under supplier finance arrangement with a bank, a supplier which provided goods or services to the Company may elect to receive early payment of their invoices from and the bank and the Company repays the bank on the payment due date. The principal purpose of this arrangement is to facilitate efficient payment processing and provide willing suppliers early payment terms. The Company does not derecognize the original trade or other payables relating to the arrangement because neither a legal release was obtained nor was the original liability substantially modified.

There is no maximum liquidity risk exposure from those other than the above financial liabilities (e.g., payment and performance guarantees) as of December 31, 2024.

#### (D) Derivative financial instruments

The Company uses cash flow hedge accounting to hedges of the exposure to changes in the price of inventories. As of December 31, 2024, the Company's derivative financial instruments designated as cash flow hedges are as follows:

<i>(In millions of Korean won)</i>	December 31, 2024		December 31, 2023	
	Assets	Liabilities	Assets	Liabilities
Currency forward exchange contracts				
Current	30,318	30,152	50,018	15,031
Non-current	13,944	27,612	19,853	18,099
<b>Total</b>	<b>44,262</b>	<b>57,764</b>	<b>69,871</b>	<b>33,130</b>

For the years ended December 31, 2024 and 2023, the Company recognizes the gains and losses relating to the effective portion of changes in fair value of derivatives that are designated and qualify as cash flow hedges in other comprehensive income, which amount to the loss of ₩38,946 million (after tax) and gain of ₩927 million (after tax), respectively, and recognizes the gains relating to the ineffective portion in profit or loss, which amount to the gain of ₩1,063 million (before tax) and ₩1,304 million (before tax), respectively. For the years ended December 31, 2024 and 2023, gains and losses reclassified directly from other comprehensive income to profit or loss amount to the gain of ₩6,642 million (after tax) and ₩6,692 million (after tax), respectively, and the gains reclassified from other comprehensive income to the carrying amount of inventory amount to the gain of ₩35,333 million (after tax) and ₩51,614 million (after tax), respectively.

#### (E) Capital risk management

The purpose of capital management is to maintain a sound capital structure and protect the Company's ability to continue to provide benefits to its shareholders and stakeholders as a going concern. The Company monitors capital on the basis of credit ratings and debt ratio.

The debt ratio as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2024	December 31, 2023
Total liabilities	112,339,878	92,228,115
Total equity	402,192,070	363,677,865
<b>Debt ratio</b>	<b>27.9%</b>	<b>25.4%</b>

#### (F) Fair value measurement

- (1) Carrying amounts and fair value of financial instruments by category as of December 31, 2024 and 2023 are as follows:

	December 31, 2024		December 31, 2023	
(In millions of Korean won)	Carrying amount	Fair value	Carrying amount	Fair value
<b>Financial assets</b>				
Cash and cash equivalents	53,705,579	(*1)	69,080,893	(*1)
Short-term financial instruments	58,909,334	(*1)	22,690,924	(*1)
Short-term financial assets at amortized cost	-	-	608,281	(*1)
Short-term financial assets at fair value through profit or loss	36,877	36,877	27,112	27,112
Trade receivables	43,623,073	(*1)	36,647,393	(*1)
Financial assets at fair value through other comprehensive income	10,580,932	10,580,932	7,481,297	7,481,297
Financial assets at fair value through profit or loss	1,175,749	1,175,749	1,431,394	1,431,394
Other <sup>(*)2</sup>	14,898,880	520,656	14,840,275	546,021
<b>Total financial assets</b>	<b>182,930,424</b>		<b>152,807,569</b>	
<b>Financial liabilities</b>				
Trade payables	12,370,177	(*1)	11,319,824	(*1)
Short-term borrowings	13,172,504	(*1)	7,114,601	(*1)
Other payables	17,390,861	(*1)	13,996,395	(*1)
Current portion of long-term liabilities	2,207,290	594,010	1,308,875	6,757
- Long-term borrowing	1,611,282	(*1)(*3)	1,302,521	(*1)(*3)
- Debentures	596,008	594,010	6,354	6,757
Debentures	14,530	16,427	537,618	529,254
Long-term borrowings	3,935,860	(*1)(*3)	3,724,850	(*1)(*3)
Long-term other payables	4,779,141	(*1)	4,907,875	(*1)
Other <sup>(*)2</sup>	13,793,044	94,559	11,414,008	83,463
<b>Total financial liabilities</b>	<b>67,663,407</b>		<b>54,324,046</b>	

<sup>(\*)1</sup> Assets and liabilities whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

<sup>(\*)2</sup> Assets measured at the cost of ₩14,378,224 million and ₩14,294,254 million as of December 31, 2024 and 2023, respectively, and liabilities measured at the cost of ₩13,698,485 million and ₩11,330,545 million of at December 31, 2024 and 2023, respectively, are excluded as their carrying amounts are a reasonable estimate of fair value.

<sup>(\*)3</sup> 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 or only disclosed their fair value as of December 31, 2024 and 2023 are as follows:

<b>December 31, 2024</b>				
(In millions of Korean won)	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total balance</b>
<b>Financial assets</b>				
Short-term financial assets at fair value through profit or loss	-	36,877	-	36,877
Financial assets at fair value through other comprehensive income	7,686,545	-	2,894,387	10,580,932
Financial assets at fair value through profit or loss	86,187	-	1,089,562	1,175,749
Other	-	98,159	422,497	520,656
<b>Financial liabilities</b>				
Current portion of debentures	-	594,010	-	594,010
Debentures	-	16,427	-	16,427
Other	-	94,559	-	94,559
<b>December 31, 2023</b>				
(In millions of Korean won)	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total balance</b>
<b>Financial assets</b>				
Short-term financial assets at fair value through profit or loss	-	27,112	-	27,112
Financial assets at fair value through other comprehensive income	5,250,993	-	2,230,304	7,481,297
Financial assets at fair value through profit or loss	347,221	-	1,084,173	1,431,394
Other	-	130,364	415,657	546,021
<b>Financial liabilities</b>				
Current portion of debentures	-	6,757	-	6,757
Debentures	-	529,254	-	529,254
Other	-	83,463	-	83,463

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 reporting 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. 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 is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where available and rely as little as possible on entity-specific estimates. If all significant inputs required to measure the fair value of 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 in line with the financial reporting timelines. 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 reporting date, with the resulting value discounted to present value

Other techniques, such as discounted cash flow analysis, binomial distribution model, etcetera, 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 proper interest rates 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 December 31, 2024.

*(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	36,253	Discounted cash flow	Permanent growth rate	1.0%
			Weighted average cost of capital	14.5%
MiCo Ceramics Co., Ltd.	49,794	Discounted cash flow	Permanent growth rate	0.0%
			Weighted average cost of capital	10.3%
TCL China Star Optoelectronics Technology Co. Ltd. (CSOT)	1,518,963	Discounted cash flow	Permanent growth rate	0.0%
			Weighted average cost of capital	9.3%
China Star Optoelectronics Semiconductor Display Technology Ltd (CSOSDT)	314,942	Discounted cash flow	Permanent growth rate	0.0%
			Weighted average cost of capital	9.3%
<b>Others</b>				
Call option on equity instruments	373,681	Binomial model	Risk-free discount rate	2.7%
			Price volatility	47.6%
Put option on equity instruments	48,816	Binomial model	Risk-free discount rate	3.5%~4.6%, 1.4%
			Price volatility	26.4%, 40.6%

(4) Changes in Level 3 instruments for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
<b>Financial assets</b>		
Balance as of January 1	3,730,134	3,303,227
Acquisitions	250,695	207,023
Disposals	(133,546)	(124,477)
Amount recognized in profit or loss	23,415	297,680
Amount recognized in other comprehensive income	322,885	46,725
Other	212,863	(44)
<b>Balance as of December 31</b>	<b>4,406,446</b>	<b>3,730,134</b>
<i>(In millions of Korean won)</i>		
<b>Financial Liabilities</b>		
Balance as of January 1	-	7,404

Amount recognized in profit or loss	-	619
Other	-	(8,023)
<b>Balance as of December 31</b>		

(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 income or loss before tax from changes in inputs for major financial instruments which are categorized within Level 3 and subject to sensitivity analysis are as follows:

(In millions of Korean won)	Favorable changes		Unfavorable changes		
	Classification	Profit or loss	Equity	Profit or loss	Equity
Financial assets at fair value through other comprehensive income (loss) <sup>(*)1)</sup>		-	207,262	-	(134,940)
Other <sup>(*)2)</sup>		144,566	-	(131,073)	-

(\*)1) For equity securities, changes in fair value are calculated by increasing or decreasing perpetual growth rate and weighted average cost of capital (-1.0%~1.0%), which are significant unobservable inputs.

(\*)2) Changes in fair value were calculated by increasing or decreasing underlying asset price (20%) and price volatility (10%), which are significant unobservable inputs.

## 29. 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 segment information reported to the Management Committee. The Management Committee reviews the operating profits of each operating segment in order to evaluate the performance and to make strategic decisions regarding the allocation of resources to each segment.

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 including depreciation, amortization and operating profits is prepared after adjusting intercompany transactions. 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 year ended December 31, 2024

<i>(In millions of Korean won)</i>	<b>DX</b>	<b>DS</b>	<b>SDC</b>	<b>Harman</b>	<b>Intercompany reconciliations</b>	<b>Total<sup>(*)</sup></b>
Revenue	174,887,683	111,065,950	29,157,820	14,274,930	(28,515,480)	300,870,903
Depreciation	2,576,351	34,097,568	2,432,338	342,627	-	39,649,982
Amortization	1,634,046	674,945	233,604	207,607	-	2,980,840
Operating profit	12,439,897	15,094,486	3,733,429	1,307,580	-	32,725,961

<sup>(\*)</sup> Other operating segments are not separately disclosed.

Revenue by major product for the year ended December 31, 2024 are as follows:

<i>(In millions of Korean won)</i>	<b>TV, monitor, and other</b>	<b>Smartphone and other</b>	<b>Memory</b>	<b>Display panels</b>	<b>Total<sup>(*)</sup></b>
Revenue	30,931,628	114,424,862	84,463,005	29,157,820	300,870,903

<sup>(\*)</sup> Other products are not separately disclosed.

(2) For the year ended December 31, 2023

<i>(In millions of Korean won)</i>	<b>DX</b>	<b>DS</b>	<b>SDC</b>	<b>Harman</b>	<b>Intercompany reconciliations</b>	<b>Total<sup>(*)</sup></b>
Revenue	169,992,337	66,594,471	30,975,373	14,388,454	(23,015,141)	258,935,494
Depreciation	2,524,199	29,371,056	3,108,935	327,572	-	35,532,411
Amortization	1,721,938	754,901	222,045	200,896	-	3,134,148
Operating profit (loss)	14,384,705	(14,879,458)	5,566,478	1,173,702	-	6,566,976

<sup>(\*)</sup> Other operating segments are not separately disclosed.

Revenue by major product for the year ended December 31, 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>TV, monitor, and other</b>	<b>Smartphone and other</b>	<b>Memory</b>	<b>Display panels</b>	<b>Total<sup>(*)</sup></b>
------------------------------------	-------------------------------	-----------------------------	---------------	-----------------------	----------------------------

Revenue	30,375,193	108,632,515	44,125,386	30,975,373	258,935,494
---------	------------	-------------	------------	------------	-------------

(\*) Other products are not separately disclosed.

## (B) Regional information

The regional information provided to the Management Committee for the reportable segments as of and for the years ended December 31, 2024 and 2023 are as follows:

### (1) As of and for the year ended December 31, 2024

<i>(In millions of Korean won)</i>	Asia					Intercompany	
	Korea	America	Europe	and Africa	China	elimination	Consolidated
Revenue	39,826,088	118,828,546	50,118,754	48,171,377	43,926,138	-	300,870,903
Non-current assets <sup>(*)</sup>	177,190,869	28,361,758	6,736,899	9,681,791	10,007,583	(2,295,125)	229,683,775

(\*) Financial instruments, deferred tax assets, investments in associates and joint ventures, and others are excluded from non-current assets.

### (2) As of and for the year ended December 31, 2023

<i>(In millions of Korean won)</i>	Asia					Intercompany	
	Korea	America	Europe	and Africa	China	elimination	Consolidated
Revenue	45,599,419	92,136,669	48,108,965	44,814,355	28,276,086	-	258,935,494
Non-current assets <sup>(*)</sup>	163,312,301	20,346,775	6,288,864	8,737,541	12,191,879	(879,236)	209,998,124

(\*) Financial instruments, deferred tax assets, investments in associates and joint ventures, and others are excluded from non-current assets.

## 30. Related Party Transactions

### (A) Sale and purchase transactions

Sale and purchase transactions with related parties for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	Name of company <sup>(*)1</sup>	2024			
		Sales	Disposal of	Purchases	Purchase of
	Samsung Electronics Business Report				146/407

		non-current asset	non-current asset
		\$	\$
Associates and joint ventures	Samsung SDS Co., Ltd.	104,837	21,504
	Samsung Electro-Mechanics Co., Ltd.	46,773	- 1,196,979
	Samsung SDI Co., Ltd.	107,474	- 664,368
	Cheil Worldwide Inc.	35,535	- 1,004,792
	Other	1,167,252	122 12,656,359
<b>Total</b>		<b>1,461,871</b>	<b>21,626</b>
<b>Total</b>		<b>17,652,897</b>	<b>524,253</b>
Other related parties	Samsung C&T Co., Ltd.	23,472	- 262,652
	Other	757,640	- 1,395,795
	<b>Total</b>	<b>781,112</b>	<b>- 1,658,447</b>
Other <sup>(*)2</sup>	Samsung E&A Co., Ltd.	2,464	- 72,000
	S-1	12,320	- 541,532
	Other	247,997	- 562,134
	<b>Total</b>	<b>262,781</b>	<b>- 1,175,666</b>
<b>Total</b>		<b>5,523,535</b>	

(\*)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.

		2023		
(In millions of Korean won)	Name of company <sup>(*)1</sup>	Disposal of		Purchase of non-current asset \$
		Sales	non-current asset \$	
Associates and joint ventures	Samsung SDS Co., Ltd.	202,810	- 1,984,263	291,120
	Samsung Electro-Mechanics Co., Ltd.	69,782	- 1,113,058	60
	Samsung SDI Co., Ltd.	110,025	- 754,792	31,750
	Cheil Worldwide Inc.	38,930	- 948,677	4,900
	Other	1,023,702	- 12,540,601	168,977
<b>Total</b>		<b>1,445,249</b>	<b>-</b>	<b>17,341,391</b>
<b>Total</b>		<b>49,366</b>	<b>70</b>	<b>270,079</b>
Other related parties	Samsung C&T Co., Ltd.	582,978	- 1,675,564	6,149,229
	Other	632,344	70	4,686,787
<b>Total</b>		<b>1,945,643</b>	<b>70</b>	<b>10,836,016</b>

Samsung E&A Co., Ltd.	1,358	-	35,482	2,837,309
S-1	9,720	-	527,232	40,327
Other <sup>(*)2)</sup>	239,223	-	1,251,775	612,481
<b>Total</b>	<b>250,301</b>	-	<b>1,814,489</b>	<b>3,490,117</b>

(\*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 the sales and purchases of goods and services as of December 31, 2024 and 2023 are as follows:

December 31, 2024				
<i>(In millions of Korean won)</i>	Name of company <sup>(*)1)</sup>	Receivables	Payables <sup>(*)2)</sup>	
	Samsung SDS Co., Ltd.	23,493	617,140	
	Samsung Electro-Mechanics Co., Ltd.	5,704	113,971	
Associates and joint ventures	Samsung SDI Co., Ltd.	123,940	50,278	
	Cheil Worldwide Inc.	206	436,315	
	Other	311,560	1,380,625	
	<b>Total</b>	<b>464,903</b>	<b>2,598,329</b>	
	Samsung C&T Co., Ltd.	205,420	1,868,959	
Other related parties	Other	19,784	743,167	
	<b>Total</b>	<b>225,204</b>	<b>2,612,126</b>	
	Samsung E&A Co., Ltd.	513	1,919,798	
Other <sup>(*)3)</sup>	S-1	2,660	66,988	
	Other	16,848	626,382	
	<b>Total</b>	<b>20,021</b>	<b>2,613,168</b>	

(\*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.

**December 31, 2023**

<i>(In millions of Korean won)</i>	<b>Name of company<sup>(*)1</sup></b>	<b>Receivables</b>	<b>Payables<sup>(*)2</sup></b>
	Samsung SDS Co., Ltd.	84,747	458,723
	Samsung Electro-Mechanics Co., Ltd.	1,894	138,405
Associates and joint ventures	Samsung SDI Co., Ltd.	117,690	92,854
	Cheil Worldwide Inc.	137	440,414
	Other	310,708	1,268,131
	<b>Total</b>	<b>515,176</b>	<b>2,398,527</b>
	Samsung C&T Co., Ltd.	213,538	1,955,976
Other related parties	Other	23,155	318,355
	<b>Total</b>	<b>236,693</b>	<b>2,274,331</b>
	Samsung E&A Co., Ltd.	305	807,098
Other <sup>(*)3</sup>	S-1	1,289	49,955
	Other	16,096	390,073
	<b>Total</b>	<b>17,690</b>	<b>1,247,126</b>

(\*)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 years ended December 31, 2024 and 2023, the Company invested ₩11,710 million and ₩78,690 million, respectively, in associates and joint ventures. In addition, the Company made a capital recovery of ₩33,178 million and ₩33,457 million from its investments in associates and joint ventures during the years ended December 31, 2024 and 2023, respectively.
- (D) For the years ended December 31, 2024 and 2023, the Company declared dividends of ₩1,610,832 million and ₩1,650,995 million, respectively, to related parties. In addition, for the years ended December 31, 2024 and 2023, the Company declared dividends of ₩128,232 million and ₩128,232 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 December 31, 2024 and 2023, there are no dividends payable to related parties.
- (E) For the years ended December 31, 2024 and 2023, the Company entered into lease agreements with its related parties amounting to ₩31,076 million and ₩3,791 million, respectively, and the lease payments made to the related parties were ₩41,800 million and ₩25,443 million, respectively.
- (F) Key management compensation

The compensation paid or payable to key management (executive directors) for their services for the years ended December 31, 2024 and 2023 consists of:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Short-term employee benefits	9,991	14,073
Post-employment benefits	600	557
Other long-term employee benefits	8,078	7,834

### **31. Information for Non-Controlling Interests**

#### **(A) Changes in non-controlling interests**

The profit or loss allocated to non-controlling interests and accumulated non-controlling interests of subsidiaries that are material to the Company for the years ended December 31, 2024 and 2023 are as follows:

<b>Samsung Display Co., Ltd. and its subsidiaries</b>		
<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Percentage of non-controlling interests	15.2%	15.2%
Balance as of January 1	9,727,674	8,853,712
Profit for the year	779,506	941,786
Dividends	(1,022,540)	(43,646)
Other	345,013	(24,178)
<b>Balance as of December 31</b>	<b>9,829,653</b>	<b>9,727,674</b>

#### **(B) The summarized financial information for the subsidiary with non-controlling interests that are material to the Company before the intercompany eliminations for the years ended December 31, 2024 and 2023 are as follows:**

##### **(1) Summarized consolidated statements of financial position**

**Samsung Display Co., Ltd. and its subsidiaries**

*(In millions of Korean won)*

**December 31, 2024      December 31, 2023**

Current assets	22,421,643	24,721,411
Non-current assets	50,635,008	46,413,723
Current liabilities	6,667,092	5,821,885
Non-current liabilities	1,501,348	1,485,250
Equity attributable to:	64,888,211	63,827,999
Owners of the parent company	64,849,566	63,769,776
Non-controlling interests	38,645	58,223

**(2) Summarized consolidated statements of comprehensive income**

**Samsung Display Co., Ltd. and its subsidiaries**

*(In millions of Korean won)*

**2024      2023**

Sales	29,135,660	30,950,579
Profit for the year	5,087,437	6,331,238
Other comprehensive income (loss)	2,652,443	(108,689)
Total comprehensive income attributable to:	7,739,880	6,222,549
Owners of the parent company	7,730,156	6,217,248
Non-controlling interests	9,724	5,301

**(3) Summarized consolidated statements of cash flows**

**Samsung Display Co., Ltd. and its subsidiaries**

*(In millions of Korean won)*

**2024      2023**

Cash flows from operating activities	6,570,627	9,244,331
Cash flows used in investing activities	(5,907,733)	(3,931,091)
Cash flows used in financing activities	(5,975,290)	(277,515)
Reclassified as held-for-sale	-	(14,153)
Effect of exchange rate changes on cash and cash equivalents	183,925	(1,534)
Increase (decrease) in cash and cash equivalents	(5,128,471)	5,020,038
Cash and cash equivalents at beginning of the year	7,329,248	2,309,210
Cash and cash equivalents at end of year	2,200,777	7,329,248

## 32. Assets and Liabilities Held-for-Sale

During the year ended December 31, 2023, the Company's management decided to sell its 56.8% ownership in Dowooinsys Co., Ltd. to three parties, including New Power Plasma Co., Ltd. The sale and purchase agreement was signed on December 7, 2023, and the sale was completed on January 31, 2024.

(1) Details of assets and liabilities classified as held-for-sale as of December 31, 2023 are as follows:

(2)

*(In millions of Korean won)*

**December 31, 2023**

### Assets held-for-sale

Cash and cash equivalents	14,153
Trade receivables	1,316
Inventories	4,697
Other current assets	13,134
Property, plant and equipment and intangible assets	181,251
Other non-current assets	3,313
<b>Total</b>	<b>217,864</b>

### Liabilities held-for-sale

Current liabilities	27,608
Non-current liabilities	34,046
<b>Total</b>	<b>61,654</b>

(3) Details of accumulated other comprehensive income (loss) attributable to assets held-for-sale are as follows:

*(In millions of Korean won)*

**December 31, 2023**

Foreign currency translation, net of tax	(217)
--	-------

---

### **33. Subsequent Events**

Based on a resolution by the board of directors on November 15, 2024, the Company is in the process of purchasing treasury shares. Subsequent to December 31, 2024, the Company acquired a total of 23.3 million shares (20.44 million ordinary shares and 2.86 million preferred shares).

## 4. Separate financial statements

Samsung Electronics Co., Ltd.

### INTERIM SEPARATE STATEMENTS OF FINANCIAL POSITION

(In millions of Korean won, in thousands of US dollars (Note 2.18))

	Notes	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
		KRW	KRW	USD	USD
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	4, 28	1,653,766	6,061,451	1,213,245	4,446,834
Short-term financial instruments	4, 28	10,187,991	50,071	7,474,168	36,733
Trade receivables	4, 5, 7, 28	33,840,357	27,363,016	24,826,141	20,074,200
Non-trade receivables	4, 7, 28	3,249,731	1,910,054	2,384,085	1,401,264
Prepaid expenses		1,381,781	1,349,755	1,013,709	990,214
Inventories	8	29,154,115	29,338,151	21,388,196	21,523,209
Other current assets	4, 28	2,852,581	2,475,944	2,092,725	1,816,416
		<b>82,320,322</b>	<b>68,548,442</b>	<b>60,392,269</b>	<b>50,288,870</b>
<b>Non-current assets</b>					
Financial assets at fair value through other comprehensive income	4, 6, 28	2,176,346	1,854,503	1,596,622	1,360,510
Financial assets at fair value through profit or loss	4, 6, 28	-	1	-	1
Investments in subsidiaries, associates and joint ventures	9	57,427,196	57,392,438	42,130,043	42,104,543
Property, plant and equipment	10	151,446,870	140,579,161	111,105,252	103,132,426
Intangible assets	11	10,496,956	10,440,211	7,700,832	7,659,203
Net defined benefit assets	14	2,249,792	3,745,697	1,650,504	2,747,938

Deferred income tax assets	25	14,333,432	9,931,358	10,515,368	7,285,895
Other non-current assets	4, 7, 28	4,515,213	4,365,478	3,312,475	3,202,625
		<b>242,645,805</b>	<b>228,308,847</b>	<b>178,011,096</b>	<b>167,493,141</b>
<b>Total assets</b>		<b>324,966,127</b>	<b>296,857,289</b>	<b>238,403,365</b>	<b>217,782,011</b>

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 2.18))

	Notes	December 31,		December 31,	
		2024	2023	2024	2023
		KRW	KRW	USD	USD
<b>Liabilities and Equity</b>					
<b>Current liabilities</b>					
Trade payables	4, 28	10,287,967	7,943,834	7,547,513	5,827,797
Short-term borrowings	4, 5, 12, 28	11,110,972	5,625,163	8,151,290	4,126,762
Other payables	4, 28	18,591,524	15,256,046	13,639,212	11,192,220
Advances received	17	350,448	302,589	257,098	221,987
Withholdings	4, 28	516,454	445,470	378,884	326,808
Accrued expenses	4, 17, 28	9,039,886	6,931,991	6,631,889	5,085,484
Current income tax liabilities		1,380,469	-	1,012,747	-
Current portion of long-term liabilities	4, 12, 13, 28	22,264,226	228,491	16,333,599	167,627
Provisions	15	6,257,389	4,540,702	4,590,579	3,331,174

Other current liabilities	17	358,641	500,815	263,107	367,412
		<b>80,157,976</b>	<b>41,775,101</b>	<b>58,805,918</b>	<b>30,647,271</b>
<b>Non-current liabilities</b>					
Debentures	4, 13, 28	14,530	19,064	10,660	13,986
Long-term borrowings	4, 12, 28	795,703	22,902,035	583,748	16,801,512
Long-term other payables	4, 28	4,965,481	4,942,826	3,642,802	3,626,182
Long-term provisions	15	2,602,575	2,413,133	1,909,315	1,770,335
Other non-current liabilities		33,205	17,356	24,360	12,733
		<b>8,411,494</b>	<b>30,294,414</b>	<b>6,170,885</b>	<b>22,224,748</b>
<b>Total liabilities</b>		<b>88,569,470</b>	<b>72,069,515</b>	<b>64,976,803</b>	<b>52,872,019</b>

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 2.18))

	Notes	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
		KRW	KRW	USD	USD
<b>Equity</b>					
Preference shares	18	119,467	119,467	87,644	87,644
Ordinary shares	18	778,047	778,047	570,795	570,795
Share premium		4,403,893	4,403,893	3,230,807	3,230,807

Retained earnings	19	233,734,316	219,963,351	171,473,402	161,370,674
Other components of equity	20	(2,639,066)	(476,984)	(1,936,086)	(349,928)
<b>Total equity</b>		<b>236,396,657</b>	<b>224,787,774</b>	<b>173,426,562</b>	<b>164,909,992</b>
<b>Total liabilities and equity</b>		<b>324,966,127</b>	<b>296,857,289</b>	<b>238,403,365</b>	<b>217,782,011</b>

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 2.18))

		For the years ended December 31,			
	Notes	2024	2023	2024	2023
		KRW	KRW	USD	USD
<b>Revenue</b>	29	209,052,241	170,374,090	153,366,008	124,990,739
<b>Cost of sales</b>	21	152,061,472	144,023,552	111,556,139	105,659,318
<b>Gross profit</b>		<b>56,990,769</b>	<b>26,350,538</b>	<b>41,809,869</b>	<b>19,331,421</b>
Selling and administrative expenses	21, 22	44,629,735	37,876,835	32,741,502	27,787,404
<b>Operating profit (loss)</b>	29	<b>12,361,034</b>	<b>(11,526,297)</b>	<b>9,068,367</b>	<b>(8,455,983)</b>
Other non-operating income	23	10,351,185	29,643,315	7,593,891	21,747,085
Other non-operating expense	23	540,542	375,723	396,555	275,640
Financial income	24	7,717,689	7,388,664	5,661,892	5,420,511
Financial expense	24	8,139,788	7,598,459	5,971,554	5,574,422
<b>Profit before income tax</b>		<b>21,749,578</b>	<b>17,531,500</b>	<b>15,956,040</b>	<b>12,861,552</b>

Income tax benefit	25	(1,832,987)	(7,865,599)	(1,344,726)	(5,770,402)
<b>Profit for the year</b>		<b>23,582,565</b>	<b>25,397,099</b>	<b>17,300,766</b>	<b>18,631,954</b>
Earnings per share	26				
(in Korean won, in US dollars)					
- Basic		3,472	3,739	2.55	2.74
- Diluted		3,472	3,739	2.55	2.74

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 2.18))

	Notes	For the years ended December 31,			
		2024	2023	2024	2023
		KRW	KRW	USD	USD
<b>Profit for the year</b>		<b>23,582,565</b>	<b>25,397,099</b>	<b>17,300,766</b>	<b>18,631,954</b>
<b>Other comprehensive income (loss)</b>					
<b>Items that will not be reclassified subsequently to profit or loss:</b>					
Gain on valuation of financial assets at fair value through other comprehensive income, net of tax	6, 20	239,784	356,472	175,912	261,517
Remeasurement of net defined benefit liabilities	14, 20	(592,254)	(572,551)	(434,493)	(420,038)

(assets), net of tax

**Items that may be reclassified subsequently to profit or loss**

<b>Other comprehensive loss for the year, net of tax</b>	(352,470)	(216,079)	(258,581)	(158,521)
<b>Total comprehensive income for the year</b>	<b>23,230,095</b>	<b>25,181,020</b>	<b>17,042,185</b>	<b>18,473,433</b>

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)*

For the year ended December 31, 2024	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Total
<b>Balance as of January 1, 2024</b>		119,467	778,047	4,403,893	219,963,351	(476,984)	224,787,774
Profit for the year		-	-	-	23,582,565	-	23,582,565
Gain (loss) on valuation of financial assets at fair value through other comprehensive income, net of tax	6, 20	-	-	-	(2,163)	241,947	239,784
Remeasurement of net defined benefit liabilities (assets), net of tax	14, 20	-	-	-	-	(592,254)	(592,254)
<b>Total comprehensive income (loss) for the year</b>		-	-	-	<b>23,580,402</b>	<b>(350,307)</b>	<b>23,230,095</b>
Dividends declared	19	-	-	-	(9,809,437)	-	(9,809,437)
Treasury shares purchased	20	-	-	-	-	(1,811,775)	(1,811,775)

<b>Total transactions with owners</b>	-	-	-	(9,809,437)	(1,811,775)	(11,621,212)
<b>Balance as of December 31, 2024</b>	119,467	778,047	4,403,89 3	233,734,31 6	(2,639,066)	236,396,657

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 2.18))

For the year ended December 31, 2024	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Total
<b>Balance as of January 1, 2024</b>		87,644	570,795	3,230,80 7	161,370,67 4	(349,928)	164,909,99 2
Profit for the year		-	-	-	17,300,766	-	17,300,766
Gain (loss) on valuation of financial assets at fair value through other comprehensive income, net of tax	6, 20	-	-	-	(1,587)	177,499	175,912
Remeasurement of net defined benefit liabilities (assets), net of tax	14, 20	-	-	-	-	(434,493)	(434,493)
<b>Total comprehensive income (loss) for the year</b>		-	-	-	17,299,179	(256,994)	17,042,185
Dividends declared	19	-	-	-	(7,196,451)	-	(7,196,451)
Treasury shares purchased	20	-	-	-	-	(1,329,164)	(1,329,164)
<b>Total transactions with owners</b>		-	-	-	(7,196,451)	(1,329,164)	(8,525,615)
<b>Balance as of December 31, 2024</b>		87,644	570,795	3,230,80 7	171,473,40 2	(1,936,086)	173,426,56 2

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)

For the year ended December 31, 2023	Notes	Preference shares	Ordinary shares	Share premium	Retained earnings	Other components of equity	Total
<b>Balance as of January 1, 2023</b>		<b>119,467</b>	<b>778,047</b>	<b>4,403,893</b>	<b>204,388,016</b>	<b>(273,232)</b>	<b>209,416,191</b>
Profit for the year		-	-	-	25,397,099	-	25,397,099
Gain (loss) on valuation of financial assets at fair value through other comprehensive income, net of tax	6, 20	-	-	-	(12,327)	368,799	356,472
Remeasurement of net defined benefit liabilities (assets), net of tax	14, 20	-	-	-	-	(572,551)	(572,551)
<b>Total comprehensive income (loss) for the year</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>25,384,772</b>	<b>(203,752)</b>	<b>25,181,020</b>
Dividends declared	19	-	-	-	(9,809,437)	-	(9,809,437)
<b>Total transactions with owners</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>(9,809,437)</b>	<b>-</b>	<b>(9,809,437)</b>
<b>Balance as of December 31, 2023</b>		<b>119,467</b>	<b>778,047</b>	<b>4,403,893</b>	<b>219,963,351</b>	<b>(476,984)</b>	<b>224,787,774</b>

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 2.18))

For the year ended December 31, 2023	Notes	Preferenc	Ordinar	Share	Retained	Other	Total
		e shares	y shares	premium	earnings	component s of equity	
<b>Balance as of January 1, 2023</b>		<b>87,644</b>	<b>570,795</b>	<b>3,230,80</b>	<b>149,944,21</b>	<b>(200,450)</b>	<b>153,633,011</b>
Profit for the year		-	-	-	18,631,954	-	18,631,954
Gain (loss) on valuation of financial assets at fair value through other comprehensive income, net of tax	6, 20	-	-	-	(9,043)	270,560	261,517
Remeasurement of net defined benefit liabilities (assets), net of tax	14, 20	-	-	-	-	(420,038)	(420,038)
<b>Total comprehensive income (loss) for the year</b>		-	-	-	<b>18,622,911</b>	<b>(149,478)</b>	<b>18,473,433</b>
Dividends declared	19	-	-	-	(7,196,452)	-	(7,196,452)
<b>Total transactions with owners</b>		-	-	-	<b>(7,196,452)</b>	<b>-</b>	<b>(7,196,452)</b>
<b>Balance as of December 31, 2023</b>		<b>87,644</b>	<b>570,795</b>	<b>3,230,80</b>	<b>161,370,67</b>	<b>(349,928)</b>	<b>164,909,99</b>
							2

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 2.18))*

	Notes	For the years ended December 31,			
		2024	2023	2024	2023
		KRW	KRW	USD	USD
<b>Operating activities</b>					
Profit for the year		23,582,565	25,397,099	17,300,766	18,631,954
Adjustments	27	21,493,129	(4,092,924)	15,767,902	(3,002,673)
Changes in assets and liabilities arising from operating activities	27	(760,086)	(13,215,547)	(557,618)	(9,695,259)
<b>Cash generated from operations</b>		<b>44,315,608</b>	<b>8,088,628</b>	<b>32,511,050</b>	<b>5,934,022</b>
Interest received		277,362	332,111	203,480	243,645
Interest paid		(674,010)	(798,649)	(494,471)	(585,909)
Dividends received		9,635,502	29,497,803	7,068,848	21,640,334
Income tax paid		(1,062,965)	(2,664,809)	(779,818)	(1,954,971)
<b>Net cash provided by operating activities</b>		<b>52,491,497</b>	<b>34,455,084</b>	<b>38,509,089</b>	<b>25,277,121</b>
<b>Investing activities</b>					
Net increase in short-term financial instruments		(10,122,673)	(49,934)	(7,426,249)	(36,633)
Disposal of financial assets at fair value through other comprehensive income		2,942	15,538	2,158	11,399
Acquisition of financial assets at fair value through other comprehensive income		-	(15,515)	-	(11,382)
Disposal of financial assets at fair value through profit or loss		1	243	1	178
Disposal of investments in subsidiaries, associates and joint ventures		319,965	144,292	234,734	105,856
Acquisition of investments in subsidiaries, associates and joint ventures		(336,648)	(108,300)	(246,973)	(79,452)
Disposal of property, plant and equipment		130,956	164,415	96,073	120,619

Acquisition of property, plant and equipment	(38,246,765)	(45,026,206)	(28,058,794)	(33,032,363)
Disposal of intangible assets	13,327	12,002	9,777	8,805
Acquisition of intangible assets	(2,069,083)	(2,639,614)	(1,517,932)	(1,936,488)
Cash outflow from other investing activities	(69,666)	(68,458)	(51,108)	(50,221)
<b>Net cash used in investing activities</b>	<b>(50,377,644)</b>	<b>(47,571,537)</b>	<b>(36,958,313)</b>	<b>(34,899,682)</b>

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 2.18))

		For the year ended December 31,			
	Notes	2024	2023	2024	2023
		KRW	KRW	USD	USD
<b>Financing activities</b>					
Net increase in short-term borrowings	27	5,316,919	3,274,337	3,900,626	2,402,136
Increase in debentures and long-term borrowings	27	-	21,990,000	-	16,132,420
Repayment of debentures and long-term borrowings	27	(217,305)	(185,316)	(159,420)	(135,953)
Dividends paid		(9,808,653)	(9,810,119)	(7,195,876)	(7,196,951)
Treasury shares purchased		(1,811,775)	-	(1,329,164)	-
<b>Net cash provided by (used in) financing activities</b>		<b>(6,520,814)</b>	<b>15,268,902</b>	<b>(4,783,834)</b>	<b>11,201,652</b>
Effect of foreign exchange rate changes		(724)	(12,591)	(531)	(9,237)
<b>Net increase (decrease) in cash and cash equivalents</b>		<b>(4,407,685)</b>	<b>2,139,858</b>	<b>(3,233,589)</b>	<b>1,569,854</b>
<b>Cash and cash equivalents</b>					
Beginning of the year		6,061,451	3,921,593	4,446,834	2,876,980
<b>End of the year</b>		<b>1,653,766</b>	<b>6,061,451</b>	<b>1,213,245</b>	<b>4,446,834</b>

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

## 5. Notes to Separate financial statements

## **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 two business divisions: Device eXperience (“DX”) and Device Solutions (“DS”). DX division comprises businesses for digital televisions, refrigerators, smartphones, and network systems. DS division comprises businesses for semiconductor products such as memory, foundry and system Large Scale Integration (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 International Financial Reporting Standards (“Korean IFRS”) 1027, *Separate Financial Statements*.

## **2. Material Accounting Policies**

The followings are material accounting policies applied on financial statements. Unless mentioned otherwise, these policies are consistent throughout the accounting periods denoted.

### **2.1 Basis of Presentation**

The Company’s financial statements have been written in accordance with the Korean International Financial Reporting Standards (“Korean IFRS”). The Korean IFRS refers to standards selected by the Republic of Korea among accounting standards and interpretations published by International Accounting Standards Board (IASB).

The Korean IFRS permits application of material accounting estimates on the financial statements and requires management’s judgements in applying accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are material to the financial statements are disclosed in Note 3.

### **2.2 Changes in Accounting Policies and Disclosures**

#### **(C) New and amended standards adopted by the Company**

The Company applied the following amended standards for the first time for the annual reporting period commencing on January 1, 2024:

Amendments to Korean IFRS 1001, *Presentation of Financial Statements*

The amendments to Korean-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 management's intentions or expectations about 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 includes the transfer to the counterparty of the entity's own equity instruments, however, it would be excluded if an option to settle the liability by the transfer of the entity's own equity instruments is recognized separately from the liability as an equity component of a compound financial instrument. The adoption of the amendments does not have a significant impact on the Company's separate financial statements.

#### Amendments to Korean IFRS 1116, *Leases*

The amendments add requirements for the subsequent measurement of sale-and-leaseback transactions that are accounted for as sales in accordance with Korean IFRS 1115, *Revenue from Contracts with Customers*. The amendments require the seller-lessee to calculate the 'lease payments' or 'revised lease payments' in a way that does not result in the seller-lessee recognizing any gain or loss for the rights of use that the seller-lessee continues to retain after the lease commences. The adoption of the amendments does not have a significant impact on the Company's separate financial statements.

#### Amendments to Korean IFRS 1007, *Statement of Cash Flows*, and 1107, *Financial Instruments: Presentation*

The amendments to Korean IFRS 1007, *Statement of Cash Flows*, introduce new disclosures, such as terms and conditions, balance payment due dates and the effects on cash flows, to help users of the financial statements to assess the effects of supplier financing arrangements on an entity's liabilities and cash flows. The amendments to Korean IFRS 1107, *Financial Instruments: Presentation*, requires disclosure of information about an entity's exposure to concentrations of liquidity related to supplier financing arrangement. The adoption of the amendments does not have a significant impact on the Company's separate financial statements.

#### (D) New and amended standard not yet adopted by the Company

The amended accounting standard that has been issued but not yet effective for the annual reporting period commencing on January 1, 2024 and has not been early adopted by the Company is as follows:

#### Amendments to Korean IFRS 1021, *The Effects of Changes in Foreign Exchange Rates*

The amendments to Korea IFRS 1021 clarify how the Company estimates a spot rate, which is used for translation of foreign transaction into functional currency or translation of foreign operation's financial statements into reporting currency, when a currency lacks exchangeability. The amendments are applied for annual periods beginning on or after January 1, 2025, with early application permitted.

### **2.3 Subsidiaries, Associates and Joint Ventures**

The Company, which is the ultimate controlling entity for the purposes of Korean IFRS 1110 *Consolidated Financial Statements*, recognizes its investments in subsidiaries, associates and joint ventures in its separate financial statements using the cost method in accordance with Korean IFRS 1027 *Separate Financial Statements*.

If there is objective evidence of impairment, the difference between the recoverable amount of the investments in subsidiaries, associates and joint ventures and their carrying amount is recognized as an impairment loss.

### **2.4 Functional and Presentation Currency**

The Company measures items included in its financial statements using the currency of the primary economic environment in which it operates ("functional currency"). The functional currency of the Company is Korean won (KRW) and the financial statements are presented in Korean won (KRW).

## **2.5 Cash and Cash Equivalents**

Cash and cash equivalents include cash on hand, deposits held at call with banks, and highly liquid short-term investment assets that are readily convertible to known amounts of cash at the date of acquisition and which are subject to an insignificant risk of changes in value.

## **2.6 Financial Assets**

### (C) Classification

Financial instruments are classified based on the business model for managing the financial assets and the contractual cash flow characteristics of the financial asset. The Company considers the contractual terms of the relevant financial instrument and assesses whether the contractual cash flows consist solely of payments of principal and interest on the principal amount outstanding.

### (D) Impairment

The Company assesses the expected credit losses of debt instruments carried at amortized cost or fair value through other comprehensive income on a forward-looking basis. However, the Company applies the simplified approach for trade receivables, which requires expected credit losses to be recognized over the life of the receivable from initial recognition.

## **2.7 Trade Receivables**

Trade receivables are recognized at initial transaction price, unless they contain a significant financing component, and are subsequently measured at amortized cost using the effective interest method less any allowance for impairment.

## **2.8 Inventories**

The Company determines the unit cost of inventories, except for materials in transit, using the average cost method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related production overheads based on normal operating capacity, excluding the cost of idle production equipment and scrapping costs.

The Company measures inventories at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less the applicable variable selling expenses, and reflects the decrease in selling price, the increase in costs to completion, or decrease in value due to excess or obsolete inventory.

## **2.9 Property, Plant and Equipment**

Depreciation of property, plant and equipment begins when assets are considered by management to be available for their intended use, such as in the production of products.

The Company's property, plant and equipment is depreciated on a straight-line method over the estimated useful lives of the assets, less any residual values. Land is not depreciated. Costs that are directly attributable to the acquisition, construction of a qualifying asset, including capitalized interest costs, are depreciated over the estimated useful lives.

The estimated useful lives of property, plant and equipment used by the Company for each asset category are as follows:

	<b>Estimated useful lives</b>
Buildings and structures	15, 30 years
Machinery and equipment	5 years
Other	5 years

## **2.10 Intangible Assets**

Goodwill represents the excess of the cost of an acquisition over the fair value of the net identifiable assets of the acquired business at the date of acquisition and is recorded as an intangible asset.

Intangible assets, other than goodwill, are initially recognized at their historical cost and are subsequently stated at cost less accumulated amortization and accumulated impairment losses.

Membership rights are regarded as intangible assets with indefinite useful life and not amortized as there are no foreseeable restrictions on their use. However, whenever there is an indication of impairment, such as a decline in the market value of membership rights, a reasonable estimate is made to reflect the impairment. Intangible assets with finite useful lives, such as patents, trademarks and other intangible assets, are amortized on a straight-line method over their estimated useful lives.

The estimated useful lives of intangible assets used by the Company are as follows:

	<b>Estimated useful lives</b>
Patents, trademarks and other intangible assets	5 - 10 years

## **2.11 Financial Liabilities**

The Company classifies financial liabilities into financial liabilities at fair value through profit or loss and other financial liabilities and recognizes them on the statement of financial position when the Company becomes a party to a contract, depending on the substance of the contractual terms.

## **2.12 Employee Benefits**

The Company operates various types of post-employment benefit plans, including defined benefit plans and defined contribution plans. The defined benefit liability (asset) recognized in the statement of financial position in respect of defined benefit plans is the present value of the defined benefit obligation at the reporting date less the fair value of plan assets, less any deficit (excess of plan assets over the asset recognition threshold) and is calculated annually by an independent actuary using the projected unit credit method.

## **2.13 Income Tax Expense**

The global minimum top-up tax in accordance with the Pilar Two tax legislation is subject to Korean IFRS 1012, Corporate Income Tax. The Company accounts for the amount of global minimum top-up tax as a current tax when it is incurred, and applies the exception for the recognition and disclosure of deferred income tax related to the global minimum top-up tax.

The Company recognizes deferred tax liabilities for taxable temporary differences associated with investments in subsidiaries, associates and joint ventures, except where the Company is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets are recognized for deductible temporary differences arising on these assets only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

## **2.14 Derivative Instruments**

The Company recognizes its rights and obligations under derivative contracts as assets and liabilities at fair value and records gains and losses on these contracts in the statement of profit or loss. However, effective portion of changes in the fair value of cash flow hedges are deferred in equity.

## **2.15 Revenue Recognition**

The Company's revenue primarily represents the fair value of the consideration received or receivable for the sale of goods in the ordinary course of the Company's activities. Revenue is net of value-added tax, returns, sales incentives, discounts and others.

**(A) Identification of performance obligations**

The Company is required to transfer control of goods and services under contracts with customers. For the export of products and goods under Incoterms Group C terms (such as CIF), the Company recognizes the transportation services (including insurance) provided after the control of the goods has passed to the customer as a separate performance obligation.

**(B) Performance obligations satisfied at a point of time**

The Company's revenue is primarily derived from the sale of goods and is recognized when control of the goods passes to the customer.

**(C) Performance obligations satisfied over time**

The Company recognizes revenue over time for sales of software, transportation services, installation services, and etc. where the customer has direct control over the outcome during the performance of the service.

**(D) Variable consideration**

The Company provides a variety of sales promotions including incentives, promotion and sales allowances. Where these sales promotion policies result in variability in the consideration promised to customers, the Company estimates the variable consideration using either the expected value or the most likely amount whichever method the Company expects to better predict the amount of consideration to which it will be entitled. The estimate of variable consideration is included in transaction price only to the extent that it is highly probable that a significant portion of the cumulative revenue already recognized will not be reversed when the related uncertainties are resolved. Revenue and contract liabilities are recognized when the related revenue is earned or when the decision to pay the variable consideration to the customer is made, whichever is later.

The Company recognizes contract liabilities (refund liabilities) after the sale of products to customers by estimating the return rate using the expected value methods based on historical experience. When the customer exercises its right to return the product, the Company recognizes the asset as a refund asset and adjusts cost of sales by the amount of the right to collect the product from the

customer. The right to collect the product is measured by deducting the cost of collecting the product from the historical carrying amount of the product.

## 2.16 Leases

### (A) Lessee accounting

The Company applies the practical expedient of Korean IFRS 1116, *Leases*, and does not separate the non-lease elements from the lease elements and accounts for the non-lease elements relating to each lease element as a single lease element.

At the commencement date of a lease, the Company recognizes a right-of-use asset (the lease asset) representing the right to use the underlying asset and a lease liability representing the obligation to make lease payments. The right-of-use asset is presented in the statement of financial position as ‘property, plant and equipment’ and the lease liability is presented as ‘current portion of long-term liabilities’ or ‘long-term borrowings.’

Lease liabilities are measured at the inception of the lease at the present value of the lease payments outstanding at that date, discounted at the Company’s incremental borrowing rate.

For short-term leases (lease terms of 12 months or less at the inception of the lease) and low value assets (underlying assets of USD 5,000 or less), lease payments are recognized as expenses on a straight-line basis over the lease term applying the simplified practical expedient.

### (B) Lessor accounting

The Company, as a lessor, determines whether a lease is a finance or an operating lease at the inception of the lease.

Leases that transfer substantially all the risk and rewards of ownership of the leased assets are classified as finance leases and all leases other than finance leases are classified as operating leases. Lease income from operating leases is recognized on a straight-line basis over the lease term, while initial direct costs incurred during the negotiation and contracting phase of an operating lease are added to the carrying amount of the leased asset and expensed over the lease term against the lease income.

## **2.17 Government Grants**

Government grants relating to revenues are deferred and recognized in the statement of profit or loss in the same period in which they are matched with revenues or expenses related to the purpose for which the grant was made. Government grants received related to the acquisition of assets are treated as deferred income and credited to the statement of profit or loss over the useful lives of the related assets.

## **2.18 Convenience Translation into United States Dollar Amounts**

The US dollar amounts provided in the separate financial statements represent supplementary information solely for the convenience of the reader. All Korean won amounts are expressed in US dollar at the rate of ₩ 1,363.09 to \$1, the average exchange rate for the year ended December 31, 2024. 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 any other rate.

## **2.19 Approval of the Separate Financial Statements**

These separate financial statements of the Company were approved by the Board of Directors on January 31, 2025, and may be approved as amended at the Annual General Shareholders' Meetings.

## **3. Material Accounting Estimates and Assumptions**

The Company makes estimates and assumptions concerning the future. Estimates and assumptions are continuously evaluated and are based on historical experience and future events that are reasonably foreseeable under the circumstances. These estimates may differ from actual results. The estimates and assumptions that have the most significant risk of causing a material adjustment to the carrying amounts of assets and liabilities in the next financial year are as follows.

### **(A) Revenue recognition**

The Company recognizes a liability for a product return and a right to the returned goods that are expected to be returned by customers following the sale of products to customers. At the point of sale, the Company estimates the return using the expected value method based on accumulated experience at the portfolio level and the Company's revenue is affected by changes in the expected return.

Revenue from the sale of goods recognized at the point of transfer of control is the contractual consideration less consideration paid to customers in relation to certain sales promotion activities. Based on the historical experience and terms of contracts, the Company makes reasonable estimates of the sales deductions which affect the Company's revenue.

(B) Provision for warranty

The Company provides warranties for products sold. At the end of each reporting period, the Company recognizes a provision for warranties based on its best estimate of the amount it believes is necessary to provide for future and current warranty obligations. These best estimates are based on historical experience.

(C) Fair value of financial instruments

The fair value of financial instruments that are not traded in an active market is determined by using various valuation techniques and assumptions based on market conditions prevailing at the end of each reporting period.

(D) Impairment of financial assets

In measuring the allowance for impairment losses on financial assets, the Company makes assumptions about the risk of default and expected credit rates. In making these assumptions and selecting the inputs for the impairment calculations, the Company makes judgment based on past experience and current and forecast of future economic conditions at the reporting date.

(E) Lease

In determining the lease term, the Company considers all relevant facts and circumstances that provide an economic incentive to exercise a renewal option, or not to exercise a termination option. The period covered by the renewal option (or the period covered by the termination option) is included in the lease term only if it is reasonably certain that the lessee will exercise (or not exercise) the renewal option.

The lease term is reassessed when the option is actually exercised (or not exercised) or when the Company becomes committed to exercise (or not exercise) the option. The Company only changes its assessment of whether it is reasonably certain the renewal option will be exercised (or not) if there is a significant event or change in circumstances within the lessee's control that affects the calculation of the lease term.

(F) Net defined benefit liabilities (assets)

The net defined benefit liabilities (assets) are dependent on a number of factors which are determined using actuarial methods based on a number of assumptions. Among the assumptions used to determine the net defined benefit liabilities (assets) is the discount rate, and changes in these assumptions will affect the carrying amount of the net defined benefit liability (asset). At the end of each year, the Company determines an appropriate discount rate, taking into account the interest rates on high-quality corporate bonds which represents the interest rate that should be used to determine the present value of the estimated future cash outflows expected to be required to settle the net defined benefit liability (asset). Some other key assumptions relating to the net defined benefit liability (asset) are based on current market conditions.

(G) Impairment of goodwill and intangible assets that have indefinite useful life

The Company tests goodwill and intangible assets with indefinite useful life for impairment annually. The recoverable amount of a cash-generating unit or asset, including goodwill, is determined based on a value-in-use calculation. These calculations are based on estimates.

(H) Income taxes

Income taxes on the Company's taxable income are calculated by applying tax laws and decisions of tax authorities in various countries, and, therefore, there is uncertainty in determining the final tax effect. The Company has recognized current and deferred tax based on its best estimate of the tax consequences expected to be payable in future periods as a result of the Company's operating activities up to the reporting date. However, the actual future final tax liability may not be consistent with the related assets and liabilities recognized, and such differences may affect the current and deferred tax assets and liabilities when the final tax effect is determined.

The Company is subject to additional income taxes, calculated in accordance with the method prescribed by tax laws, when a certain amount is not used for investment, wage growth, etcetera, in a given period. The related tax effect is reflected in the measurement of current and deferred income taxes for the period, and the amount of income tax payable by the Company depends on the level of investment, wage growth, etcetera in each year, resulting in uncertainty in determining the final tax effects.

The Company assesses uncertainty over its tax positions and, if the Company concludes that it is not probable that the tax authorities will accept an uncertain tax position, the effect of the uncertainty is recognized in the financial statements for each uncertain tax position using the method that is expected to provide a better estimate of the resolution of the uncertainty, which is more likely of the following methods.

- (1) Most likely amount: the single most probable amount within a range of possible outcomes.
- (2) Expected value: the sum of the probability-weighted amounts in a range of possible outcomes.

#### 4. Financial Instruments by Category

(B) Categorizations of financial assets and liabilities as of December 31, 2024 and 2023 are as follows:

(2) As of December 31, 2024

<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
<b>Financial assets</b>				
Cash and cash equivalents	1,653,766	-	-	1,653,766
Short-term financial instruments	10,187,991	-	-	10,187,991
Trade receivables	33,840,357	-	-	33,840,357
Financial assets at fair value through other comprehensive income	-	2,176,346	-	2,176,346
Other	5,265,647	-	373,681	5,639,328
<b>Total</b>	<b>50,947,761</b>	<b>2,176,346</b>	<b>373,681</b>	<b>53,497,788</b>

<i>(In millions of Korean won)</i>	Financial liabilities measured at amortized cost	Other financial liabilities <sup>(*)</sup>	Total
<b>Financial liabilities</b>			
Trade payables	10,287,967	-	10,287,967
Short-term borrowings	-	11,110,972	11,110,972
Other payables	18,331,728	-	18,331,728
Current portion of long-term liabilities	21,997,265	266,961	22,264,226
Debentures	14,530	-	14,530
Long-term borrowings	-	795,703	795,703
Long-term other payables	4,383,749	-	4,383,749
Other	4,893,869	-	4,893,869
<b>Total</b>	<b>59,909,108</b>	<b>12,173,636</b>	<b>72,082,744</b>

<sup>(\*)</sup> Other financial liabilities include lease liabilities, which are not subject to categorizations, and collateralized borrowings.

(2) As of December 31, 2023

<i>(In millions of Korean won)</i>	<b>Financial assets measured at amortized cost</b>	<b>Financial assets measured at fair value through other comprehensive income</b>	<b>Financial assets measured at fair value through profit or loss</b>	<b>Total</b>
<b>Financial assets</b>				
Cash and cash equivalents	6,061,451	-	-	6,061,451
Short-term financial instruments	50,071	-	-	50,071
Trade receivables	27,363,016	-	-	27,363,016
Financial assets at fair value through other comprehensive income	-	1,854,503	-	1,854,503
Financial assets at fair value through profit or loss	-	-	1	1
Other	4,972,284	-	393,235	5,365,519
<b>Total</b>	<b>38,446,822</b>	<b>1,854,503</b>	<b>393,236</b>	<b>40,694,561</b>

<i>(In millions of Korean won)</i>	<b>Financial liabilities measured at amortized cost</b>	<b>Other financial liabilities<sup>(*)</sup></b>	<b>Total</b>
<b>Financial liabilities</b>			
Trade payables	7,943,834	-	7,943,834
Short-term borrowings	-	5,625,163	5,625,163
Other payables	15,015,578	-	15,015,578
Current portion of long-term liabilities	6,354	222,137	228,491
Debentures	19,064	-	19,064
Long-term borrowings	21,990,000	912,035	22,902,035
Long-term other payables	4,486,390	-	4,486,390
Other	3,652,969	-	3,652,969
<b>Total</b>	<b>53,114,189</b>	<b>6,759,335</b>	<b>59,873,524</b>

<sup>(\*)</sup> Other financial liabilities include lease liabilities, which are not subject to categorizations, and collateralized borrowings.

(C) Net gains or net losses on each category of financial assets and liabilities for the years ended December 31, 2024 and 2023 are as follows:

(1) 2024

<i>(In millions of Korean won)</i>	<b>Financial assets measured at amortized cost</b>	<b>Financial assets meas- ured at fair value th- rough other comprehen- sive income</b>	<b>Financial assets me- asured at fair val- ue through profit or loss</b>	<b>Total</b>
<b>Financial assets</b>				
Gain on valuation	-	239,784	-	239,784
(other comprehensive income)				
Loss on valuation/disposal	-	-	(14,895)	(14,895)
(profit or loss)				
Interest income	396,089	-	-	396,089
Foreign exchange differences	1,326,139	-	-	1,326,139
(profit or loss)				
Dividend income	-	3,962	-	3,962
Impairment (profit or loss)	(67,644)	-	-	(67,644)
<b>Financial liabilities measured at amortized cost</b>				
<b>Other financial liabilities (*)</b>				
<i>(In millions of Korean won)</i>				
Financial liabilities				<b>Total</b>
Interest expense	(330,514)	(509,097)	(839,611)	
Foreign exchange differences (profit or loss)	(657,439)	(165,169)	(822,608)	

(\*) Other financial liabilities include lease liabilities, which are not subject to categorizations, and collateralized borrowings.

(2) 2023

<i>(In millions of Korean won)</i>	<b>Financial assets measured at amortized cost</b>	<b>Financial assets meas ured at fair value th rough other compreh ensive income</b>	<b>Financial assets meas ured at fair value th rough</b>	<b>profit or loss</b>	<b>Total</b>
<b>Financial assets</b>					
Gain on valuation	-	356,472	-	-	356,472
(other comprehensive income)					
Gain on valuation/disposal	-	-	365,387	365,387	
(profit or loss)					
Interest income	371,106	-	-	-	371,106
Foreign exchange differences	(216,145)	-	-	-	(216,145)
(profit or loss)					
Dividend income	-	4,081	637	637	4,718
Impairment (profit or loss)	(2,113)	-	-	-	(2,113)

<i>(In millions of Korean won)</i>	<b>measured at amortized cost</b>	<b>Other financial liabilities (*)</b>	<b>Total</b>
<b>Financial liabilities</b>			
Interest expense	(310,267)	(285,498)	(595,765)
Foreign exchange differences (profit or loss)	5,103	31,557	36,660

(\*) Other financial liabilities include lease liabilities which are not subject to categorizations, and collateralized borrowings.

## 5. Transfer of Financial Assets

The Company discounted trade receivables through factoring arrangements with banks during the years ended December 31, 2024 and 2023. Trade receivables provided as collaterals in factoring transactions have not been derecognized as they do not meet the requirements for derecognition of financial assets as the Company retains substantially all the risks and rewards, including the recourse in the event of default by the debtor. Financial liabilities recognized in these transactions are classified as ‘short-term borrowings’ on the separate statement of financial position (refer to Note 12).

The carrying amount of the discounted trade receivables and the associated liabilities as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Carrying amount of the discounted trade receivables	11,110,972	5,625,163
Carrying amount of the associated liabilities	11,110,972	5,625,163

## 6. Financial Assets at Fair Value

Details of financial assets at fair value as of December 31, 2024 and 2023 are as follows:

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

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Equity instruments	2,176,346	1,854,503

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

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Debt instruments	-	1

Changes in financial assets at fair value for the years ended December 31, 2024 and 2023 are as follows:

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

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	1,854,503	1,364,325
Acquisition	-	15,515
Disposal	(2,942)	(15,577)
Fair value valuation gain	324,785	490,240
<b>Balance as of December 31</b>	<b>2,176,346</b>	<b>1,854,503</b>

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

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	1	283
Disposal	-	(282)
Other	(1)	-
<b>Balance as of December 31</b>	<b>-</b>	<b>1</b>

(E) Changes in gain (loss) on valuation of financial assets at fair value through other comprehensive income for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	2024	2023
Balance as of January 1	340,232	(166,635)
Fair value valuation gain	324,785	490,240
Reclassification to retained earnings due to disposal	2,939	16,627
Balance as of December 31	667,956	340,232
Income tax effects	(179,854)	(94,077)
<b>Total</b>	<b>488,102</b>	<b>246,155</b>

(F) Details of listed equity securities of financial assets at fair value as of December 31, 2024 and 2023 are as follows:

	December 31, 2024			December 31, 2023	
<i>(In millions of Korean won, number of shares and percentage)</i>	Number of sha res owned	Percentage of o wnership (%) <sup>(*)</sup>	Acquisition cos t	Carrying amount (Market value)	Carrying amount (Market value)
Samsung Heavy Industries Co., Ltd.	134,027,281	15.2	932,158	1,514,508	1,038,712
Hotel Shilla Co., Ltd.	2,004,717	5.1	13,957	73,974	131,108
iMarket Korea Inc.	647,320	1.9	324	5,179	5,560
KT Skylife Co., Ltd.	240,000	0.5	3,344	1,134	1,421
Mona Yongpyong Co., Ltd.	400,000	0.8	1,869	1,284	1,220
A-Tech Solution Co., Ltd.	1,592,000	15.9	26,348	8,804	17,241
Wonik Holdings Co., Ltd.	1,759,171	2.3	15,410	4,486	5,928
Wonik IPS Co., Ltd.	1,850,936	3.8	16,214	41,368	62,839
Dongjin Semichem Co., Ltd.	2,467,894	4.8	48,277	51,579	95,508
Soulbrain Co., Ltd.	437,339	5.6	40,382	72,336	132,952
S&S Tech Corporation	1,716,116	8.0	65,933	43,933	77,740
YC Corporation	9,601,617	11.7	47,336	98,033	47,864
KCtech Co., Ltd.	1,022,216	4.9	20,720	26,629	27,395

LOTVacuum Co., Ltd.	1,267,668	7.1	18,990	10,585	25,544
Newpower Co., Ltd.	2,140,939	4.9	12,739	9,463	11,240
Fine Semitech Corporation	1,522,975	7.0	43,009	23,956	37,541
DNF Co., Ltd.	810,030	7.0	20,964	7,144	19,400
Marvell Technology, Inc.	173,187	0.0	11,705	28,119	13,468
SoundHound AI, Inc.	1,702,957	0.5	13,719	49,666	4,655
<b>Total</b>	<b>1,353,398</b>		<b>2,072,180</b>		<b>1,757,336</b>

<sup>(e)</sup> Ownership represents the Company's ownership of the ordinary shares issued by each entity.

## 7. Trade and Non-Trade Receivables

(A) Trade and non-trade receivables as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>		<b>December 31, 2023</b>	
	<b>Trade</b>	<b>Non-trade</b>	<b>Trade</b>	<b>Non-trade</b>
Receivables	33,967,334	3,263,714	27,421,756	1,927,564
Less: Loss allowance	(126,977)	(4,303)	(58,740)	(6,230)
<b>Subtotal</b>	<b>33,840,357</b>	<b>3,259,411</b>	<b>27,363,016</b>	<b>1,921,334</b>
Less: Non-current	-	(9,680)	-	(11,280)
<b>Current</b>	<b>33,840,357</b>	<b>3,249,731</b>	<b>27,363,016</b>	<b>1,910,054</b>

(B) Movements in the loss allowance for receivables for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>		<b>2023</b>	
	<b>Trade</b>	<b>Non-trade</b>	<b>Trade</b>	<b>Non-trade</b>
Balance as of January 1	58,740	6,230	56,432	6,387
Bad debt expense (reversal)	68,237	(330)	2,308	(145)
Write-off	-	(1,597)	-	(12)
<b>Balance as of December 31</b>	<b>126,977</b>	<b>4,303</b>	<b>58,740</b>	<b>6,230</b>

(C) The details of trade and non-trade receivables classified by past due date for the purpose of measuring expected credit losses as of December 31, 2024 and 2023 are as follows:

(In millions of Korean won)	December 31, 2024		December 31, 2023	
	Trade	Non-trade	Trade	Non-trade
Receivables not past due	33,374,582	3,141,782	26,584,115	1,747,904
Past due:				
Less than 31 days past due <sup>(*)</sup>	404,847	77,956	430,299	142,166
31 days to 90 days past due	71,780	13,019	252,998	7,893
Over 90 days past due	116,125	30,957	154,344	29,601
Subtotal	592,752	121,932	837,641	179,660
<b>Total</b>	<b>33,967,334</b>	<b>3,263,714</b>	<b>27,421,756</b>	<b>1,927,564</b>

<sup>(\*)</sup> The Company does not consider the credit risk of non-trade receivables that are overdue for less than or equal to 31 days has been significantly increased.

(D) The maximum exposure to current credit risk is equivalent to the carrying amount of receivables as of December 31, 2024. The Company has entered into insurance contracts with insurers for its major receivables.

## 8. Inventories

Inventories as of December 31, 2024 and 2023 are as follows:

(In millions of Korean won)	December 31, 2024			December 31, 2023		
	Gross amount	Valuation allowance	Carrying amount	Gross amount	Valuation allowance	Carrying amount
Finished goods	6,374,009	(774,903)	5,599,106	7,914,117	(1,203,662)	6,710,455
Work in process	20,944,352	(1,802,857)	19,141,495	21,866,523	(3,863,881)	18,002,642
Raw materials and supplies	4,561,944	(552,073)	4,009,871	4,910,170	(861,821)	4,048,349
Materials in transit	403,643	-	403,643	576,705	-	576,705
<b>Total</b>	<b>32,283,948</b>	<b>(3,129,833)</b>	<b>29,154,115</b>	<b>35,267,515</b>	<b>(5,929,364)</b>	<b>29,338,151</b>

Inventories recognized as an expense for the years ended December 31, 2024 and 2023 amount to ₩150,032,902 million and ₩142,735,272 million, respectively. The amount includes loss on the valuation of inventories.

## 9. Investments in Subsidiaries, Associates and Joint Ventures

(H) Changes in investments in subsidiaries, associates and joint ventures for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	57,392,438	57,397,249
Acquisition	336,648	108,300
Disposal	(315,306)	(144,317)
Impairment reversal	13,416	31,206
<b>Balance as of December 31</b>	<b>57,427,196</b>	<b>57,392,438</b>

(I) Major investments in associates as of December 31, 2024 are as follows:

(refer to Note 30 for list of the Company's subsidiaries)

<b>Investee</b>	<b>Nature of relationship with associate</b>	<b>Percentage of ownership (%)<sup>(*)1</sup></b>	<b>Principal business location</b>	<b>Fiscal period-end</b>
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 Information Technology services including computer programming, system integration and management, and logistical services	22.6	Korea	December
Samsung Biologics Co., Ltd.	Investment in new business	31.2	Korea	December
Samsung SDI Co., Ltd. <sup>(*)2</sup>	Manufacture and supply electronic parts including secondary cell batteries	19.6	Korea	December
Cheil Worldwide, Inc.	Advertising agency	25.2	Korea	December

<sup>(\*)1</sup> Ownership represents the Company's ownership of the ordinary shares issued by each entity.

<sup>(\*)2</sup> The Company's ownership of ordinary shares outstanding is 20.6%.

(J) A summary of the condensed financial information of major subsidiaries and associates as of and for the years ended December 31, 2024 and 2023 is as follows:

(1) Major subsidiaries

<i>(In millions of Korean won)</i>	2024				<b>Profit (loss)</b>
	<b>Assets</b>	<b>Liabilities</b>	<b>Sales</b>	<b>for the year</b>	
Samsung Display Co., Ltd. (SDC)	67,541,382	8,305,660	25,401,419	5,989,037	
Samsung Electronics America, Inc. (SEA)	50,777,503	18,653,435	40,650,074	1,628,652	
Samsung Asia Pte. Ltd. (SAPL)	31,226,978	353,722	-	5,326,248	
Samsung (China) Semiconductor Co., Ltd. (SCS)	18,796,411	900,205	11,180,211	1,195,361	
Samsung (CHINA) Investment Co., Ltd. (SCIC)	16,111,528	15,246,946	2,754,791	300,719	
Samsung India Electronics Private Ltd. (SIEL)	9,561,708	3,226,735	17,048,976	1,408,392	
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	9,093,393	3,452,430	-	195,012	
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	6,467,878	5,635,634	30,068,460	468,408	
Samsung Eletronica da Amazonia Ltda. (SEDA)	4,679,383	1,486,272	7,935,236	208,102	
Samsung Electronics (UK) Ltd. (SEUK)	3,267,763	2,042,914	6,158,787	181,457	
Thai Samsung Electronics Co., Ltd. (TSE)	2,637,138	502,266	4,513,870	166,928	
Samsung Electronics Taiwan Co., Ltd. (SET)	2,411,145	1,642,510	5,744,458	62,255	
SEMES Co., Ltd.	2,365,712	705,818	2,432,656	144,665	
Samsung Electronics Mexico S.A. De C.V. (SEM)	2,017,910	845,480	4,086,721	125,857	
Samsung Electronics Europe Logistics B.V. (SELS)	1,928,760	1,710,124	15,682,546	(12,249)	

<sup>(\*)</sup> The above summary of condensed financial information is based on separate financial statements of each subsidiary.

2023

<i>(In millions of Korean won)</i>	Profit (loss)			
	Assets	Liabilities	Sales	for the year
Samsung Display Co., Ltd. (SDC)	65,328,568	7,266,213	27,083,336	8,268,314
Samsung Electronics America, Inc. (SEA)	41,926,899	15,322,780	39,551,809	477,338
Samsung Asia Pte. Ltd. (SAPL)	22,234,942	282,614	-	14,140,195
Samsung (China) Semiconductor Co., Ltd. (SCS)	15,808,283	870,453	8,693,788	877,892
Samsung (CHINA) Investment Co., Ltd. (SCIC)	10,222,557	8,797,991	3,148,858	189,887
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	9,660,481	4,585,806	-	103,387
Samsung India Electronics Private Ltd. (SIEL)	7,738,259	3,373,730	15,216,331	1,153,256
Samsung Eletronica da Amazonia Ltda. (SEDA)	5,542,627	1,587,911	7,222,304	333,812
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	5,262,086	4,552,030	15,649,307	244,210
Thai Samsung Electronics Co., Ltd. (TSE)	3,039,379	640,512	4,213,492	150,510
Samsung Electronics (UK) Ltd. (SEUK)	2,902,722	1,976,067	5,859,133	185,113
SEMES Co., Ltd.	2,187,919	659,607	2,502,143	58,754
Samsung Electronics Mexico S.A. De C.V. (SEM)	2,153,032	1,038,115	3,638,080	148,873
Samsung Electronics Taiwan Co., Ltd. (SET)	1,797,627	1,139,056	4,108,479	56,467
Samsung Electronics Benelux B.V. (SEBN)	1,794,552	639,120	2,833,717	140,313

(\*) The above summary of condensed financial information is based on separate financial statements of each subsidiary.

(2) Major associates

<i>(In millions of Korean won)</i>	2024				
	Samsung Electro-Mec hanics Co., Ltd.	Samsung SDS Co., L td.	Samsung Biologics Co., Ltd.	Samsung SDI Co., Lt d.	Cheil Worldwide, Inc.
Current assets	5,891,746	9,003,787	5,518,118	10,334,313	2,754,194
Non-current assets	6,900,656	4,234,543	11,818,179	30,263,032	568,459
Current liabilities	3,056,861	2,495,409	3,853,188	10,855,694	1,594,190
Non-current liabilities	719,688	1,037,472	2,578,432	8,174,413	251,659

Revenue	10,294,103	13,828,232	4,547,322	16,592,249	4,344,257
Profit from continuing operations <sup>(*)</sup>	640,865	756,997	1,083,316	544,239	207,515
Profit from discontinued operation, net of tax <sup>(*)</sup>	38,265	-	-	55,051	-
Other comprehensive income (loss) <sup>(*)</sup>	349,340	144,625	(9,132)	722,676	76,571
Total comprehensive income <sup>(*)</sup>	1,028,470	901,622	1,074,184	1,321,966	284,086

<sup>(\*)</sup> Profit (loss) attributable to owners of the parent company.

2023

<i>(In millions of Korean won)</i>	Samsung Electro-Mec hanics Co., Ltd.	Samsung SDS Co., L td.	Samsung Biologics C o., Ltd.	Samsung SDI Co., Lt d.	Cheil Worldwide, Inc.
Current assets	5,208,418	8,160,300	5,521,988	9,187,029	2,372,420
Non-current assets	6,449,453	4,160,724	10,524,209	24,851,831	517,085
Current liabilities	2,900,460	2,391,861	4,157,861	8,518,933	1,375,034
Non-current liabilities	727,087	953,592	2,057,844	5,612,677	216,707
Revenue	8,892,412	13,276,844	3,694,589	21,436,788	4,138,275
Profit from continuing operations <sup>(*)</sup>	449,857	693,422	857,691	1,921,820	187,302
Profit (loss) from discontinued operation, net of ta x <sup>(*)</sup>	(26,900)	-	-	87,387	-
Other comprehensive income (loss) <sup>(*)</sup>	45,053	(11,085)	(11,673)	85,394	3,685
Total comprehensive income <sup>(*)</sup>	468,010	682,337	846,018	2,094,601	190,987

<sup>(\*)</sup> Profit (loss) attributable to owners of the parent company.

(K) Fair value of marketable investments in associates as of December 31, 2024 and 2023 is as follows:

	December 31, 2024			December 31, 2023	
(In millions of Korean won and number of shares)	Number of sha- res held	Market value	Carrying amou- nt	Market value	Carrying amou- nt
Samsung Electro-Mechanics Co., Ltd.	17,693,084	2,190,404	445,244	2,710,580	445,244
Samsung SDS Co., Ltd.	17,472,110	2,232,936	560,827	2,970,259	560,827
Samsung Biologics Co., Ltd.	22,217,309	21,084,226	1,595,892	16,885,155	1,595,892
Samsung SDI Co., Ltd.	13,462,673	3,332,012	1,242,605	6,354,382	1,242,605
Cheil Worldwide, Inc.	29,038,075	492,195	491,599	552,595	491,599

(L) Others

The Company's board of directors decided to exercise call options so as to acquire 3.94 million shares of Rainbow Robotics Inc., a Company's associate, from six shareholders including the largest shareholder on December 31, 2024. The aggregate exercise price is ₩267,463 million, and will be paid upon completion of relevant government administrative procedures.

## 10. Property, Plant and Equipment

(A) Changes in property, plant and equipment for the years ended December 31, 2024 and 2023 are as follows:

	2024						
(In millions of Korean won)	Land	Buildings and structures	and equipme- nt	Machinery	Construction in progress	Other	Total
Balance as of January 1	7,881,222	26,564,296	69,492,787	34,675,331	1,965,525	140,579,161	
Acquisition cost	7,883,620	41,814,348	228,287,817	34,675,331	5,182,709	317,843,825	
Accumulated depreciation an- d impairment	(2,398)	(15,250,052)	(158,795,030)	-	(3,217,184)	(177,264,664)	
Acquisitions and capital expen- ditures <sup>(*)</sup>	181,295	4,756,975	38,411,587	(3,208,214)	1,228,769	41,370,412	
Depreciation	(2,340)	(2,464,085)	(27,213,533)	-	(605,340)	(30,285,298)	
Disposal/scrap	(17,239)	(114,033)	(26,089)	-	(7,971)	(165,332)	
Impairment	-	(199)	(3,624)	-	(942)	(4,765)	

Other	915	(12,620)	165,845	(205)	(201,243)	(47,308)
<b>Balance as of December 31</b>	<b>8,043,853</b>	<b>28,730,334</b>	<b>80,826,973</b>	<b>31,466,912</b>	<b>2,378,798</b>	<b>151,446,870</b>
Acquisition cost	8,048,086	46,332,683	264,285,218	31,466,912	5,691,097	355,823,996
Accumulated depreciation and impairment	(4,233)	(17,602,349)	(183,458,245)	-	(3,312,299)	(204,377,126)

(\*) Acquisition cost and capital expenditures include amounts reclassified from constructions in progress. Capitalized borrowing costs amount to ₩849,378 million, and the capitalization interest rate used to calculate the capitalized borrowing costs is 4.6%.

2023						
(In millions of Korean won)	Machinery					
	Land	Buildings and structures	and equipment	Construction in progress	Other	Total
Balance as of January 1	7,752,989	23,246,622	61,426,540	28,768,364	2,072,471	123,266,986
Acquisition cost	7,754,559	36,449,026	199,823,339	28,768,364	4,886,059	277,681,347
Accumulated depreciation and impairment	(1,570)	(13,202,404)	(138,396,799)	-	(2,813,588)	(154,414,361)
Acquisitions and capital expenditures <sup>(*)</sup>	131,535	5,509,158	31,107,219	5,907,608	461,345	43,116,865
Depreciation	(1,003)	(2,135,709)	(22,908,637)	-	(574,245)	(25,619,594)
Disposal/scrap	(2,277)	(25,652)	(95,125)	-	(5,330)	(128,384)
Impairment	-	(27,715)	(24,920)	-	(1,547)	(54,182)
Other	(22)	(2,408)	(12,290)	(641)	12,831	(2,530)
<b>Balance as of December 31</b>	<b>7,881,222</b>	<b>26,564,296</b>	<b>69,492,787</b>	<b>34,675,331</b>	<b>1,965,525</b>	<b>140,579,161</b>
Acquisition cost	7,883,620	41,814,348	228,287,817	34,675,331	5,182,709	317,843,825
Accumulated depreciation and impairment	(2,398)	(15,250,052)	(158,795,030)	-	(3,217,184)	(177,264,664)

(\*) Acquisition cost and capital expenditures include amounts reclassified from constructions in progress. Capitalized borrowing costs amount to ₩646,471 million, and the capitalization interest rate used to calculate the capitalized borrowing costs is 4.6%.

(B) Changes in the right-of-use assets included in the property, plant and equipment for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	2024				
	Land	Buildings and structures	Machinery and equipment	Other	Total
Balance as of January 1	4,575	1,295,293	8,142	532,903	1,840,913
Acquisition	193	74,707	77,272	46,870	199,042
Depreciation	(2,340)	(231,116)	(29,075)	(46,160)	(308,691)
Cancellation of contract	(328)	(3,083)	-	(145)	(3,556)
Other	914	-	(283)	1,805	2,436
<b>Balance as of December 31</b>	<b>3,014</b>	<b>1,135,801</b>	<b>56,056</b>	<b>535,273</b>	<b>1,730,144</b>

<i>(In millions of Korean won)</i>	2023				
	Land	Buildings and structures	Machinery and equipment	Other	Total
Balance as of January 1	1,866	642,700	22,135	569,312	1,236,013
Acquisition	3,712	863,062	1,728	4,554	873,056
Depreciation	(1,003)	(189,855)	(16,057)	(40,749)	(247,664)
Cancellation of contract	-	(20,500)	-	(234)	(20,734)
Other	-	(114)	336	20	242
<b>Balance as of December 31</b>	<b>4,575</b>	<b>1,295,293</b>	<b>8,142</b>	<b>532,903</b>	<b>1,840,913</b>

(C) Details of depreciation of property, plant and equipment for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	2024	2023
Cost of sales	27,673,746	23,618,150
Selling and administrative expenses and other	2,611,552	2,001,444
<b>Total</b>	<b>30,285,298</b>	<b>25,619,594</b>

## 11. Intangible Assets

(D) Changes in intangible assets for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	2024				
	Development				
	Intellectual property rights	cost	Membership	Other	Total
Balance as of January 1	1,287,798	-	196,827	8,955,586	10,440,211
External acquisitions	270,328	-	13,531	2,213,977	2,497,836
Amortization	(236,511)	-	-	(2,195,761)	(2,432,272)
Disposals/scrap	(33,661)	-	-	(16,040)	(49,701)
Impairment	-	-	(826)	-	(826)
Other	(741)	-	-	42,449	41,708
<b>Balance as of December 31</b>	<b>1,287,213</b>	<b>-</b>	<b>209,532</b>	<b>9,000,211</b>	<b>10,496,956</b>

<i>(In millions of Korean won)</i>	2023				
	Development				
	Intellectual property rights	cost	Membership	Other	Total
Balance as of January 1	1,193,286	85,018	199,870	7,083,250	8,561,424
External acquisitions	371,570	-	1,069	4,174,044	4,546,683
Amortization	(229,849)	(85,018)	-	(2,299,322)	(2,614,189)
Disposals/scrap	(40,944)	-	(7,850)	(560)	(49,354)
Impairment	(6,265)	-	3,738	(3,114)	(5,641)
Other	-	-	-	1,288	1,288
<b>Balance as of December 31</b>	<b>1,287,798</b>	<b>-</b>	<b>196,827</b>	<b>8,955,586</b>	<b>10,440,211</b>

(E) Details of amortization of intangible assets for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	2024	2023
Cost of sales	1,836,827	2,016,938
Selling and administrative expenses and other	595,445	597,251
Total	<b>2,432,272</b>	<b>2,614,189</b>

## 12. Borrowings

(A) Details of the carrying amounts of borrowings as of December 31, 2024 and December 31, 2023 are as follows:

<i>(In millions of Korean won)</i>	Financial institutions	Maturity date	Interest rate (%) as of December 31, 2024	December 31, 2024	December 31, 2023
<b>Short-term borrowings</b>					
1) Collateralized borrowings <sup>(*)</sup>	Woori Bank and other	-	0.4~14.9	11,110,972	5,625,163
<b>Current portion of long-term borrowings</b>					
Lease liabilities <sup>(*)2)</sup>	-	-	3.0	266,961	222,137
Non-collateralized borrowings	Samsung Display Co., Ltd.	August 16, 2025	4.6	21,990,000	-
<b>Total</b>				<b>22,256,961</b>	<b>222,137</b>
<b>Long-term borrowings</b>					
Lease liabilities <sup>(*)2)</sup>	-	-	3.0	795,703	912,035
Non-collateralized borrowings	-	-	-	-	21,990,000
<b>Total</b>				<b>795,703</b>	<b>22,902,035</b>

(\*)1 Collateralized borrowings are secured by trade receivables.

(\*)2 Interest expenses arising from the lease liabilities for the years ended December 31, 2024 and 2023 amount to ₩32,567 million and ₩28,282 million, respectively, which were determined using the weighted average incremental borrowing rate. Short-term lease payments and low-valued asset lease payments that are not included in lease liabilities during the years ended December 31, 2024 and 2023 amount to ₩47,328 million and ₩51,569 million, respectively.

(B) Maturities of unsecured borrowings outstanding as of December 31, 2024 are as follows:

<i>(In millions of Korean won)</i>	<b>Non-collateralized Borrowings</b>
<b>Repayment in</b>	
2025	22,619,095
<b>Total</b>	<b>22,619,095</b>

(C) Maturities of lease liabilities outstanding as of December 31, 2024 are as follows:

<i>(In millions of Korean won)</i>	<b>Lease liabilities</b>
<b>Repayment in</b>	
2025	299,447
2026	241,390
2027	168,208
2028	129,598
2029 and thereafter	333,846
<b>Total</b>	<b>1,172,489</b>

### 13. Debentures

(A) Details of the carrying amounts of debentures as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>Issue date</b>	<b>Due date</b>	<b>Interest rate (%) as of Dec 31, 2024</b>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
US dollar denominated straight bonds <sup>(*)</sup>	Oct 2, 1997	Oct 1, 2027	7.7 (USD 15 million)	22,050 (USD 20 million)	25,788 (USD 20 million)
Less: Discounts				(255)	(370)
Less: Current portion				(7,265)	(6,354)
<b>Total</b>				<b>14,530</b>	<b>19,064</b>

<sup>(\*)</sup> 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 in arrears.

(B) Repayment schedule of debentures outstanding as of December 31, 2024 are as follows:

<i>(In millions of Korean won)</i>	<b>Debentures</b>
<b>Repayment in</b>	
2025	7,350
2026	7,350
2027	7,350
<b>Total</b>	<b>22,050</b>

#### 14. Net Defined Benefit Liabilities (Assets)

(J) Details of net defined benefit liabilities (assets) recognized in the statements of financial position as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Present value of funded defined benefit obligations	13,152,202	11,959,655
Present value of unfunded defined benefit obligations	25,500	22,672
<b>Subtotal</b>	<b>13,177,702</b>	<b>11,982,327</b>
Fair value of plan assets	(15,427,494)	(15,728,024)
<b>Total</b>	<b>(2,249,792)</b>	<b>(3,745,697)</b>

(K) The components of defined benefit costs recognized in profit or loss for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Current service cost	1,053,582	962,366
Net interest income	(215,644)	(275,246)
<b>Total</b>	<b>837,938</b>	<b>687,120</b>

The amount recognized as expenses of defined contribution plans for the years ended December 31, 2024 and 2023 are ₩77,360 million and ₩48,884 million, respectively

(L) The expenses related to the defined benefit plans recognized in the statements of profit or loss for the years ended December 31, 2024 and 2023 are as follows :

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Cost of sales	336,493	271,113
Selling and administrative expenses and other	501,445	416,007
<b>Total</b>	<b>837,938</b>	<b>687,120</b>

(M) Changes in the defined benefit obligations for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	11,982,327	10,758,672
Current service cost	1,053,582	962,366
Interest cost	642,716	613,363
Remeasurement:		
Changes in demographic assumptions	-	(61,559)
Changes in financial assumptions	538,347	226,995
Other	124,814	117,800
Benefits paid	(1,178,887)	(653,343)
Other	14,803	18,033
<b>Balance as of December 31</b>	<b>13,177,702</b>	<b>11,982,327</b>

(N) Changes in the fair value of plan assets for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	15,728,024	15,168,895
Interest income on plan assets	858,360	888,609
Remeasurement of plan assets	(141,532)	(494,687)
Contributions by employer	-	694,100
Benefits paid	(1,021,978)	(537,855)
Other	4,620	8,962
<b>Balance as of December 31</b>	<b>15,427,494</b>	<b>15,728,024</b>

The reasonable estimate of the employer contributions expected to be paid in 2025 in respect of the defined benefit plans as of December 31, 2024 is ₩1,674,416 million.

(O) As of December 31, 2024, plan assets are invested in fixed income instruments with guaranteed principal and others.

(P) The principal actuarial assumptions as of December 31, 2024 and 2023 are as follows:

<i>(In percentage)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Discount rate	5.1	5.6
Salary growth rate (including the effects of inflation)	5.5	5.6

(Q) The sensitivity analysis of the defined benefit obligations as of December 31, 2024 and 2023 to changes in the principal assumptions is as follows:

<b>Defined benefit obligations</b>		
<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Discount rate		
1%p increase	11,947,468	10,888,509
1%p decrease	14,615,589	13,258,187
Salary growth rate		
1%p increase	14,591,538	13,242,324
1%p decrease	11,943,514	10,880,916

(R) The weighted average maturity of the defined benefit obligations is 10.12 years as of December 31, 2024.

## 15. Provisions

Changes in provisions for the year ended December 31, 2024 are as follows:

<i>(In millions of Korean won)</i>	<b>Warranty (A)</b>	<b>Royalty expenses (B)</b>	<b>Long-term incentives (C)</b>	<b>Other (D, E)</b>	<b>Total</b>
Balance as of January 1	673,951	1,815,938	713,719	3,750,227	6,953,835
Charged to profit or loss	801,454	1,337,893	202,630	2,384,980	4,726,957
Payment	(718,775)	(532,481)	(262,023)	(1,575,488)	(3,088,767)
Other	-	172,551	-	95,388	267,939
<b>Balance as of December 31</b>	<b>756,630</b>	<b>2,793,901</b>	<b>654,326</b>	<b>4,655,107</b>	<b>8,859,964</b>

- (F) The Company accrues warranty provisions for estimated costs of quality assurance, exchanges, repairs, recalls, and future services based on historical experience and terms of warranty programs.
- (G) 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.
- (H) The Company has a long-term incentive plan for its executives based on a three-year management performance criteria and recognizes a provision for the estimated incentive cost.
- (I) The Company records provisions for estimated losses from contracts associated with discontinued products.
- (J) The Company makes provisions for the emission in excess of the emission rights held by the Company. Details of emission rights and liabilities as of December 31, 2024 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 December 31, 2024 are as follows:

<i>(In million metric tons)</i>	<b>December 31, 2024</b>
Emission rights allocated free of charge <sup>(*)</sup>	12.82
Estimated volume of emission	13.96

<sup>(\*)</sup> As of December 31, 2024, emission rights allocated free of charge for the remainder of the plan period are 11.16 million metric ton (2025: 11.16 million metric tons).

(2) Changes in the emission rights for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	3,137	19,567
Acquisition	-	1,265
Utilization	-	(17,695)
<b>Balance as of December 31<sup>(*)</sup></b>	<b>3,137</b>	<b>3,137</b>

(\*) The quantity of emission rights is 27.48 million metric ton and no emission rights is provided as collateral as of December 31, 2024.

(3) Changes in the emission liabilities for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Balance as of January 1	-	32,825
Charged to the statement of profit or loss	-	(15,348)
Utilization	-	(17,477)
<b>Balance as of December 31</b>	<b>-</b>	<b>-</b>

## 16. Commitments and Contingencies

### (C) Guarantees

(1) Debt guarantees provided by the Company for overseas subsidiaries as of December 31, 2024 are as follows:

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

<b>Debtor</b>	<b>Creditor</b>	<b>Date of maturity</b>	<b>Amount of indebtedness</b>	<b>Guaranteed amount</b>
SETK	BNP and others	Dec 16, 2025	675,675	1,392,090
Other	Others	-	-	10,518,247
<b>Total</b>			<b>675,675</b>	<b>11,910,337</b>
			USD 495,321	USD 8,102,270

(2) The ceiling amount of guarantees provided by the Company for the execution of contracts by overseas subsidiaries is ₩532,893 million as of December 31, 2024.

(3) The Company has not been provided any collateral or guarantees from its related parties as of December 31, 2024.

(D) Litigation

As of December 31, 2024, 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.

(E) 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.

(F) Other commitments

- (1) As of December 31, 2024, the Company has trade financing agreements, trade notes receivable discounting facilities, and loan facilities secured by accounts receivable with 4 financial institutions, including Woori Bank, with a combined limit of ₩10,677,500 million. In addition, the Company has a trade financing agreement with 18 financial institutions, including Shinhan bank, with a limit of USD 8,898 million, and loan facilities with 4 financial institutions, including Industrial Bank of Korea, with a limit of ₩506,249 million.
- (2) As of December 31, 2024, contractual commitments for the acquisition of property, plant and equipment and intangible assets amount to ₩7,335,536 million.

## 17. Contract Liabilities

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

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
Contract liabilities <sup>(*)</sup>	1,559,287	1,491,085

<sup>(\*)</sup> Contract liabilities include advances received, accrued expenses, other current liabilities and others.

The revenue recognized for the year ended December 31, 2024 in relation to the contract liabilities carried forward as of January 1, 2024 amounts to ₩281,451 million.

## 18. Share Capital

As of December 31, 2024, the Company's total number of authorized shares is 25,000,000,000 shares (W100 per share). As well as its ordinary shares, the Company also has non-cumulative preference shares that are eligible for an additional 1% cash dividend over par value per annum compared to ordinary shares, but without voting rights. The Company has issued 5,969,782,550 shares of ordinary shares and 822,886,700 shares of preference shares as of December 31, 2024, excluding the number of retired shares. The number of shares outstanding is different from the aforementioned number of shares issued due to purchase of treasury shares. Due to the retirement of shares, the total par value of the shares issued which excludes the number of retired shares is W679,267 million (ordinary shares of W596,978 million and preference shares of W82,289 million), which does not agree with paid-in capital of W897,514 million.

<i>(Number of shares)</i>	<b>Ordinary shares outstanding</b>	<b>Preference shares outstanding</b>
As of January 1, 2023	5,969,782,550	822,886,700
Treasury shares purchased	-	-
As of December 31, 2023	5,969,782,550	822,886,700
As of January 1, 2024	5,969,782,550	822,886,700
Treasury shares purchased	(29,700,000)	(4,050,000)
As of December 31, 2024	5,940,082,550	818,836,700

## 19. Retained Earnings

(B) Retained earnings as of December 31, 2024 and 2023 consist of the following:

<i>(In millions of Korean won)</i>	<b>December 31, 2024</b>	<b>December 31, 2023</b>
<b>Appropriated retained earnings</b>		
Legal reserves:		
Earned profit reserves <sup>(*)</sup>	450,789	450,789
Discretionary reserves	217,059,556	201,484,221
Subtotal	217,510,345	201,935,010
<b>Unappropriated retained earnings</b>	<b>16,223,971</b>	<b>18,028,341</b>
<b>Total</b>	<b>233,734,316</b>	<b>219,963,351</b>

<sup>(\*)</sup> The Commercial Code of the Republic of Korea requires the Company to appropriate as a legal reserve, an amount equal to a minimum of 10% of annual cash dividends declared, until the reserve equals 50% of the aggregate par value of issued capital stock. As of December 31, 2024, since the Company's profit reserves reached 50% of its capital stock, the Company has no obligation to appropriate additional amount.

(C) Separate statements of appropriation of retained earnings for the years ended December 31, 2024 and 2023 are as follows:

The appropriation of retained earnings for the year ended December 31, 2024, is expected to be appropriated at the general shareholders' meeting to be held on March 19, 2025. The appropriation date for the year ended December 31, 2023 was March 20, 2024.

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
<b>Retained earnings before appropriations</b>		
Unappropriated retained earnings carried over from prior year	30	30
Interim dividends:		
In 2024 - ₩1,083 (dividend rate: 1083%)	(7,356,461)	(7,356,461)
In 2023 - ₩1,083 (dividend rate: 1083%)	(2,163)	(12,327)
Profit for the year	23,582,565	25,397,099
Disposal of financial assets measured at fair value through profit or loss	(2,163)	(12,327)
<b>Retained earnings available for appropriation</b>	<b>16,223,971</b>	<b>18,028,341</b>
<b>Transfers from other reserves</b>		
<b>Appropriations of retained earnings</b>		
Cash dividends:		
In 2024:		
Ordinary shares - ₩363 (dividend rate: 363%)	2,454,307	2,452,976
Preference shares - ₩364 (dividend rate: 364%)		
In 2023:		
Ordinary shares - ₩361 (dividend rate: 361%)	13,769,634	15,575,335
Preference shares - ₩362 (dividend rate: 362%)		
Reserve for research and human resources development	16,223,941	18,028,311
<b>Total appropriations of retained earnings</b>	<b>30</b>	<b>30</b>
<b>Unappropriated retained earnings to be carried forward</b>	<b>30</b>	<b>30</b>

(D) Details of interim and year-end dividends are as follows:

(1) Interim dividends (Record date: March 31, June 30 and September 30, 2024 and 2023)

<i>(In millions of Korean won and number of shares)</i>		<b>2024</b>	<b>2023</b>
1 <sup>st</sup> Quarter	Number of shares eligible for dividend	Ordinary shares	5,969,782,550
	s	Preference shares	822,886,700

	Dividend rate (based on par value)	Ordinary/Preference	361%	361%
		Ordinary shares	2,155,092	2,155,092
	Dividend amount	Preference shares	297,062	297,062
		<b>Total</b>	<b>2,452,154</b>	<b>2,452,154</b>
	Number of shares eligible for dividends	Ordinary shares	5,969,782,550	5,969,782,550
		Preference shares	822,886,700	822,886,700
2 <sup>nd</sup> Quarter	Dividend rate (based on par value)	Ordinary/Preference	361%	361%
		Ordinary shares	2,155,092	2,155,092
	Dividend amount	Preference shares	297,062	297,062
		<b>Total</b>	<b>2,452,154</b>	<b>2,452,154</b>
	Number of shares eligible for dividends	Ordinary shares	5,969,782,550	5,969,782,550
		Preference shares	822,886,700	822,886,700
3 <sup>rd</sup> Quarter	Dividend rate (based on par value)	Ordinary/Preference	361%	361%
		Ordinary shares	2,155,092	2,155,092
	Dividend amount	Preference shares	297,062	297,062
		<b>Total</b>	<b>2,452,154</b>	<b>2,452,154</b>

(2) Year-end dividends (Record date: December 31, 2024 and 2023)

	(In millions of Korean won and number of shares)	2024	2023
	Number of shares eligible for dividends	Ordinary shares	5,940,082,550
		Preference shares	818,836,700
	Dividend rate (based on par value)	Ordinary shares	363%
		Preference shares	364%
		Ordinary shares	2,156,250
	Dividend amount	Preference shares	298,057
		<b>Total</b>	<b>2,454,307</b>
			<b>2,452,976</b>

## 20. Other Components of Equity

(A) Other components of equity as of December 31, 2024 and 2023 are as follows:

*(In millions of Korean won)*

**December 31, 2024**

**December 31, 2023**

Gain on valuation of financial assets at fair value through other comprehensive income	488,102	246,155
Remeasurement of net defined benefit assets	(3,075,801)	(2,483,547)
Treasury shares	(1,811,775)	-
Others	1,760,408	1,760,408
<b>Total</b>	<b>(2,639,066)</b>	<b>(476,984)</b>

(B) Treasury shares as of December 31, 2024 and 2023 are as follows:

*(In millions of Korean won and number of shares)*

**2024**

**2023**

Number of treasury shares purchased	Ordinary shares	29,700,000	-
	Preference shares	4,050,000	-
Acquisition cost	Ordinary shares	1,625,252	-
	Preference shares	186,523	-

## 21. Expenses by Nature

Expenses by nature for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Changes in finished goods, work in process, and other	(27,504)	(1,557,583)
Raw materials used, merchandise purchased, and other	87,478,581	89,350,845
Wages and salaries	15,247,579	13,941,832
Post-employment benefit	915,298	736,004
Depreciation	30,285,298	25,619,594
Amortization	2,432,272	2,614,189
Welfare	3,414,856	3,307,047
Utilities	5,759,175	5,051,847
Outsourcing	4,505,891	3,791,485
Advertising	1,634,516	1,747,480
Sales promotion	1,385,627	1,298,806
Other	43,659,618	35,998,841
<b>Total<sup>(*)</sup></b>	<b>196,691,207</b>	<b>181,900,387</b>

<sup>(\*)</sup> Equal to sum of cost of sales and selling and administrative expenses in the separate statements of profit or loss.

## 22. Selling and Administrative Expenses

Selling and administrative expenses for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
<b>Selling and administrative expenses</b>		
Wages and salaries	2,521,337	2,541,935
Post-employment benefit	163,548	133,881
Commissions	3,091,188	3,566,826
Depreciation	477,811	468,454
Amortization	398,113	390,581
Advertising	1,634,516	1,747,480
Sales promotion	1,385,627	1,298,806
Transportation	865,698	541,902
Service	1,292,125	981,945
Other	2,641,755	2,352,176
<b>Subtotal</b>	<b>14,471,718</b>	<b>14,023,986</b>
<b>Research and development expenses</b>		
Research and development	30,158,017	23,852,849
<b>Total</b>	<b>44,629,735</b>	<b>37,876,835</b>

## 23. Other Non-Operating Income and Expenses

Details of other non-operating income and expenses for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
<b>Other non-operating income</b>		
Dividend income	9,736,333	29,096,899
Rental income	184,855	183,234
Gain on disposal of property, plant and equipment	64,356	105,553
Other	365,641	257,629
<b>Total</b>	<b>10,351,185</b>	<b>29,643,315</b>

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
<b>Other non-operating expenses</b>		
Loss on disposal of property, plant and equipment	99,941	49,044
Donations	150,377	176,171
Other	290,224	150,508
<b>Total</b>	<b>540,542</b>	<b>375,723</b>

## 24. Financial Income and Expenses

Details of financial income and expenses for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
<b>Financial income</b>		
Interest income	396,089	371,106
Financial assets measured at amortized cost	396,089	371,106
Foreign exchange differences	7,321,600	6,652,107
Gain from derivatives	-	365,451
<b>Total</b>	<b>7,717,689</b>	<b>7,388,664</b>

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
<b>Financial expenses</b>		
Interest expenses	839,611	595,765
Financial liabilities measured at amortized cost	330,514	310,267
Other financial liabilities	509,097	285,498
Foreign exchange differences	7,280,623	7,002,694
Loss from derivatives	19,554	-
<b>Total</b>	<b>8,139,788</b>	<b>7,598,459</b>

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

## 25. Income Tax Expense

(A) Income tax expense for the years ended December 31, 2024 and 2023 consists of the following:

<i>(In millions of Korean won)</i>	2024	2023
<b>Current taxes</b>		
Current tax on profits for the year	1,689,123	337,983
Adjustments recognized in the current year	754,311	(487,822)
Subtotal	2,443,434	(149,839)
<b>Deferred taxes</b>		
Changes in deferred taxes arising from unused tax credits	(4,658,032)	(4,713,725)
Changes in deferred taxes arising from temporary differences	(547,094)	(2,073,330)
Changes in deferred taxes arising from unused tax losses	928,705	(928,705)
Subtotal	(4,276,421)	(7,715,760)
<b>Income tax expense</b>	<b>(1,832,987)</b>	<b>(7,865,599)</b>

(B) The difference between the income tax expense on the Company's profit before tax and the theoretical amount computed using the tax rate applicable to the Company's profit before tax is as follows:

<i>(In millions of Korean won)</i>	2024	2023
<b>Profit before income tax</b>		
Profit before income tax	21,749,578	17,531,500
<b>Tax calculated at tax rates applicable to profits<sup>(*)</sup></b>	<b>5,741,889</b>	<b>4,628,316</b>
<b>Adjustments:</b>		
Non-taxable income	(2,696,812)	(7,340,802)
Non-deductible expense	10,691	6,256
Tax credits	(4,936,294)	(5,082,791)
Other	47,539	(76,578)
Subtotal	(7,574,876)	(12,493,915)
<b>Income tax expense</b>	<b>(1,832,987)</b>	<b>(7,865,599)</b>

<sup>(\*)</sup> The statutory tax rate regulated by tax laws as of December 31, 2024 and 2023 is applied.

(C) The movement in deferred income tax assets and liabilities for the years ended December 31, 2024 and 2023 are as follows:

	2024			2023		
	Balance		Balance	Balance		Balance
	as of	Increase	as of	as of	Increase	as of
(In millions of Korean won)	January 1	(Decrease)	December 31	January 1	(Decrease)	December 31
<b>Deferred tax arising from temporary differences</b>						
Revaluation of land	(898,687)	1,998	(896,689)	(898,505)	(182)	(898,687)
Investments in subsidiaries, associates and joint ventures <sup>(*)</sup>	(228,304)	6,902	(221,402)	(819,038)	590,734	(228,304)
Accumulated depreciation and other	(1,408,682)	324,105	(1,084,577)	(1,634,038)	225,356	(1,408,682)
Accrued income	(3,564)	(28,996)	(32,560)	(2,487)	(1,077)	(3,564)
Provisions, accrued expenses, and other	5,433,027	153,938	5,586,965	3,613,572	1,819,455	5,433,027
Foreign currency translation	124,852	41,321	166,173	147,194	(22,342)	124,852
Asset impairment losses	181,641	3,687	185,328	184,282	(2,641)	181,641
Post-employment benefits	(1,879,227)	182,161	(1,697,066)	(1,427,630)	(451,597)	(1,879,227)
Other	539,804	(138,022)	401,782	624,180	(84,376)	539,804
<b>Subtotal</b>	<b>1,860,860</b>	<b>547,094</b>	<b>2,407,954</b>	<b>(212,470)</b>	<b>2,073,330</b>	<b>1,860,860</b>
<b>Deferred tax arising from tax losses</b>						
Unused tax losses	928,705	(928,705)	-	-	928,705	928,705
<b>Deferred tax arising from unused tax credits</b>						
Unused tax credits	6,339,250	4,658,032	10,997,282	1,625,525	4,713,725	6,339,250
<b>Deferred tax recognized in equity</b>						
Loss (gain) on valuation of financial assets at fair value through other comprehensive income and other	(88,295)	(86,785)	(175,080)	43,991	(132,286)	(88,295)
Remeasurement of net defined benefit assets	890,838	212,438	1,103,276	685,466	205,372	890,838
<b>Subtotal</b>	<b>802,543</b>	<b>125,653</b>	<b>928,196</b>	<b>729,457</b>	<b>73,086</b>	<b>802,543</b>
<b>Total</b>	<b>9,931,358</b>	<b>4,402,074</b>	<b>14,333,432</b>	<b>2,142,512</b>	<b>7,788,846</b>	<b>9,931,358</b>

<sup>(\*)</sup> Deferred tax assets are not recognized if it is probable that the temporary differences will not reverse in the foreseeable future for investments in subsidiaries, associates and joint ventures.

(D) Details of the period when the deferred tax assets (liabilities) are expected to be recovered (settled) as of December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	December 31, 2024	December 31, 2023
	4	3
Net deferred tax assets to be recovered (settled) within 12 months	3,776,380	5,055,283
Net deferred tax assets (liabilities) to be recovered (settled) after more than 12 months	10,557,052	4,876,075
<b>Total</b>	<b>14,333,432</b>	<b>9,931,358</b>

## 26. Earnings per Share

(C) Basic earnings per share

Basic earnings per share for the years ended December 31, 2024 and 2023 are calculated as follows:

(1) Ordinary shares

<i>(In millions of Korean won, thousands of number of shares)</i>	2024	2023
Profit for the year	23,582,565	25,397,099
Profit for the year available for ordinary shares	20,724,961	22,319,686
Weighted-average number of ordinary shares outstanding	5,969,672	5,969,783
<b>Basic earnings per ordinary share (in Korean won)</b>	<b>3,472</b>	<b>3,739</b>

(2) Preference shares

<i>(In millions of Korean won, thousands of number of shares)</i>	2024	2023
Profit for the year	23,582,565	25,397,099
Profit for the year available for preference shares	2,857,604	3,077,413
Weighted-average number of preference shares outstanding	822,871	822,887
<b>Basic earnings per preference share (in Korean won)</b>	<b>3,473</b>	<b>3,740</b>

(D) 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 years ended December 31, 2024 and 2023.

## 27. 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 years ended December 31, 2024 and 2023 are as follows:

- Adjustments

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Adjustments :		
Income tax income	(1,832,987)	(7,865,599)
Financial income	(1,566,938)	(995,482)
Financial expenses	2,545,209	1,316,292
Post-employment benefits	915,298	736,004
Depreciation	30,285,298	25,619,594
Amortization	2,432,272	2,614,189
Bad debt expense	67,958	2,308
Dividend income	(9,736,333)	(29,096,899)
Gain on disposal of property, plant and equipment	(64,356)	(105,553)
Loss on disposal of property, plant and equipment	99,941	49,044
(Reversal of) loss on valuation of inventories and others	(1,691,973)	3,558,358
Other	39,740	74,820
<b>Total</b>	<b>21,493,129</b>	<b>(4,092,924)</b>

- Changes in assets and liabilities arising from operating activities

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Changes in assets and liabilities :		
Increase in trade receivables	(5,566,775)	(6,883,154)
Decrease (increase) in non-trade receivables	(1,213,085)	612,652
Increase in prepaid expenses	(286,511)	(339,588)
Decrease (increase) in inventories	1,929,763	(4,399,456)

Increase (decrease) in trade payables	2,028,901	(701,579)
Increase (decrease) in other payables	1,304,136	(335,900)
Increase (decrease) in advances received	47,859	(18,100)
Increase (decrease) in withholdings	70,984	(77,884)
Decrease in accrued expenses	(50,071)	(1,677,917)
Increase in provisions	1,638,190	1,076,981
Payment of post-employment benefits	(1,256,247)	(702,328)
Decrease (increase) in plan assets	1,021,978	(156,245)
Other	(429,208)	386,971
<b>Total</b>	<b>(760,086)</b>	<b>(13,215,547)</b>

(B) Significant non-cash investing and financing transactions for the years ended December 31, 2024 and 2023 are as follows:

<i>(In millions of Korean won)</i>	<b>2024</b>	<b>2023</b>
Valuation of financial assets at fair value through other comprehensive income	324,785	490,240
Reclassification of construction in progress to property, plant and equipment	43,491,326	38,188,436
Acquisition of right-of-use assets (new lease contracts established)	199,042	873,056
Reclassification of current portion of debentures and long-term borrowings	22,264,226	228,492

(C) Changes in liabilities arising from financing activities for the years ended December 31, 2024 and 2023 are as follows:

(1) 2024

<i>(In millions of Korean won)</i>	<b>As of January 1</b>	<b>Cash flows from financing activities</b>	<b>Non-cash transactions</b>			<b>As of December 31</b>
			<b>New lease contract s</b>	<b>Other<sup>(*)</sup></b>	<b>December 31</b>	
Short-term borrowings	5,625,163	5,316,919	-	168,890	11,110,972	
Debentures and long-term borrowings	23,149,590	(217,305)	199,042	(56,868)	23,074,459	
<b>Total</b>	<b>28,774,753</b>	<b>5,099,614</b>	<b>199,042</b>	<b>112,022</b>	<b>34,185,431</b>	

(\*) Other includes accrued interest and effects of changes in foreign currency exchange rates.

(2) 2023

<i>(In millions of Korean won)</i>	<b>As of January 1</b>	<b>Cash flows from financing activities</b>	<b>Non-cash transactions</b>		<b>As of December 31</b>
			<b>New lease contract s</b>	<b>Other<sup>(*)</sup></b>	
Short-term borrowings	2,381,512	3,274,337	-	(30,686)	5,625,163
Debentures and long-term borrowings	815,644	21,804,684	567,652	(38,390)	23,149,590
<b>Total</b>	<b>3,197,156</b>	<b>25,079,021</b>	<b>567,652</b>	<b>(69,076)</b>	<b>28,774,753</b>

(\*) Other includes accrued interest and effects of changes in foreign currency exchange rates.

For the years ended December 31, 2024 and 2023, cash outflows from repayment of the principal of lease liabilities (financial activities) amount to W210,858 million and W178,979 million, respectively, while cash outflows due to interest expenses (operating activities) in relation to the lease liabilities amount to W32,567 million and W28,282 million, respectively.

- (D) The Company recorded cash inflows and outflows from short-term financial instruments with frequent transactions, large gross amounts and short-term maturities, as well as from short-term borrowings on a net basis. As of December 31, 2024, most of the Company's cash and cash equivalents consist mainly of bank deposits.

## 28. Financial Risk Management

The Company manages its financial risks with a focus on minimizing market risk, credit risk, liquidity risk and other risks arising from its operating activities. To this end, the Company closely monitors and responds to each risk factor.

The Company establishes global financial management standards and manages the risks by periodically measuring customer's and counterparties' financial risk, applying currency hedges, and reviewing cash flows.

The Company also manages foreign exchange risk by monitoring foreign exchange rate fluctuations through local financial centers in the major regions (United States, United Kingdom, Singapore, China, Brazil, and Russia), which act as an agent for the subsidiaries in each region to manage foreign exchange transactions. In addition, local finance centers in the major regions respond to liquidity risk through a regionally integrated financial structure.

The Company's financial assets subject to financial risk management consist of cash and cash equivalents, short-term financial instruments, financial assets at amortized cost, trade receivables and others, while its financial liabilities consist of trade payables,

borrowings, and others.

(A) Market risk

(4) Foreign exchange risk

The Company is exposed to foreign exchange risk arising from its global operations through transactions in currencies other than its functional currency. The main currencies in which the Company is exposed to foreign exchange risk are the US dollar and European Euro.

The Company focuses on minimizing the impact of foreign exchange fluctuation by matching levels of assets and liabilities denominated in each foreign currency. To minimize exchange position, the Company's foreign exchange management policy requires norms not eliminate, the foreign exchange risk to which the Company is exposed. 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.

As of December 31, 2024 and 2023, the impact on profit or loss (before tax) of a 5% change in exchange rates on the Company's financial assets and financial liabilities denominated in a major foreign currency other than the functional currency would be as follows:

<i>(In millions of Korean won)</i>	December 31, 2024		December 31, 2023	
	Increase	Decrease	Increase	Decrease
USD	132,956	(132,956)	201,224	(201,224)
EUR	(92,620)	92,620	(25,356)	25,356

(5) Interest rate risk

Interest rate risk for floating interest rate financial instruments can be defined as the risk of changes in the fair value of components of the statements of financial position due to changes in the market interest rates, and the risk of changes in the future cash flows of interest income and expenses arising from investing and financing activities. The Company's exposure to interest rate risk arises primarily from interest-bearing deposits and floating interest rate debt obligations, and the Company manages its exposure to interest rate risk to minimize uncertainty and cost of financing resulting from changes in interest rates.

(6) 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 December 31, 2024 and 2023, price fluctuation of marketable equity securities (listed stocks) by 1% would result in changes in other comprehensive income (before income tax) of ₩20,722 million and ₩17,573 million, respectively.

(B) Credit risk

Credit risk arises during the normal course of transactions and investing activities where customers or other parties fail to discharge an obligation. The Company monitors and sets the customer's and counterparty's credit limit on a periodic basis based on their financial conditions, default history and other 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 including financial instrument transactions such as cash and cash equivalents, deposits, and derivative instruments. To minimize such risk, the Company transacts only with banks that have a strong international credit rating (S&P A and above), and new transactions with financial institutions which the Company does not have an existing relationship are subject to the completion of risk assessments prior to commencement of transactions. The Company generally enters into financial agreements without restrictions, such as debt ratio covenants, provision of collateral and/or repayment of loans/borrowings, and otherwise separate approvals are obtained.

The carrying amount of the Company's financial assets is net of impairment losses and the Company's maximum exposure to credit risk equals the carrying amount of its financial assets.

(C) Liquidity risk

Liquidity risk is the risk that a company will have difficulty in meeting all its financial obligations. The Company's main sources of liquidity are cash generated from operations and funds raised from the capital markets and financial institutions, while its main liquidity needs are for investments in production, research and development, working capital and dividends. Due to the nature of the Company's business, which involves large investments, maintaining adequate levels of liquidity is critical. The Company maintains and manages adequate liquidity through forecasting periodic cash flows, estimating required cash levels, and monitoring inflows and outflows of cash.

The Company has established Cash Pooling by region to respond effectively to liquidity risks, even when individual companies within a region are underfunded. Cash Pooling is a system that shares funds between underfunded and overfunded companies, minimizing the liquidity risk of individual companies, easing the burden of fund management, and reducing financial costs.

In addition, the Company has secured credit lines for its overseas subsidiaries by means of payment guarantees from the head office in the event of large liquidity needs, and, at the end of the period, the Company had investment grade ratings of Aa2 from Moody's and AA- from S&P, enabling it to raise funds on the capital market in a timely manner.

As of December 31, 2024 and 2023, the maturity analysis of financial liabilities, based on the remaining period from the reporting date

to the contractual maturity date, is as follows:

	December 31, 2024				
	Less than		More than		
(In millions of Korean won)	3 months	~ 6 months	~ 1 year	1 - 5 years	5 years
Financial liabilities	43,847,890	556,915	22,667,554	4,894,826	728,620

	December 31, 2023				
	Less than		More than		
(In millions of Korean won)	3 months	~ 6 months	~ 1 year	1 - 5 years	5 years
Financial liabilities	32,311,019	374,370	980,835	27,454,095	1,378,061

The cash flows included in the maturity classification, based on the remaining period to the contractual maturity date, are undiscounted expected cash outflows.

Under supplier finance arrangement with a bank, a supplier which provided goods or services to the Company may elect to receive early payment of their invoices from the bank and the Company repays the bank on the payment due date. The principal purpose of this arrangement is to facilitate efficient payment processing and provide willing suppliers early payment terms. The Company does not derecognize the original trade or other payables relating to the arrangement because neither a legal release was obtained nor was the original liability substantially modified.

The maximum amount of liquidity risk in the form of payment and performance guarantees provided to subsidiaries as of December 31, 2024 and 2023, other than the financial liabilities mentioned above, is ₩ 12,443,230 million and ₩ 10,960,748 million, respectively.

#### (D) Capital risk management

The purpose of capital management is to maintain a sound capital structure and protect the Company's ability to continue to provide benefits to its shareholders and stakeholders as a going concern. The Company monitors capital on the basis of credit ratings and debt ratio.

The debt ratio as of December 31, 2024 and 2023 are as follows:

(In millions of Korean won)

December 31, 2024

December 31, 2023

	December 31, 2024	December 31, 2023
Total liabilities	88,569,470	72,069,515
Total equity	236,396,657	224,787,774
<b>Debt ratio</b>	<b>37.5%</b>	<b>32.1%</b>

(E) Fair value measurement

(6) Carrying amounts and fair value of financial instruments by category as of December 31, 2024 and 2023 are as follows:

(In millions of Korean won)	December 31, 2024		December 31, 2023	
	Carrying amount	Fair value	Carrying amount	Fair value
<b>Financial assets</b>				
Cash and cash equivalents	1,653,766	(*)1	6,061,451	(*)1
Short-term financial instruments	10,187,991	(*)1	50,071	(*)1
Trade receivables	33,840,357	(*)1	27,363,016	(*)1
Financial assets at fair value through other comprehensive income	2,176,346	2,176,346	1,854,503	1,854,503
Financial assets at fair value through profit or loss	-	-	1	1
Other <sup>(*)2</sup>	5,639,328	373,681	5,365,519	393,235
<b>Total financial assets</b>	<b>53,497,788</b>		<b>40,694,561</b>	
<b>Financial liabilities</b>				
Trade payables	10,287,967	(*)1	7,943,834	(*)1
Short-term borrowings	11,110,972	(*)1	5,625,163	(*)1
Other payables	18,331,728	(*)1	15,015,578	(*)1
Current portion of long-term liabilities	22,264,226	7,737	228,491	6,757
- Long-term borrowing	22,256,961	(*)1)(*)3	222,137	(*)3
- Debentures	7,265	7,737	6,354	6,757
Debentures	14,530	16,427	19,064	21,695
Long-term borrowings	795,703	(*)3	22,902,035	(*)1)(*)3
Long-term other payables	4,383,749	(*)1	4,486,390	(*)1

Other	4,893,869	(*)	3,652,969	(*)
<b>Total financial liabilities</b>	<b>72,082,744</b>		<b>59,873,524</b>	

(\*)<sup>1</sup> Assets and liabilities whose carrying amount is a reasonable approximation of fair value are excluded from the fair value disclosures.

(\*)<sup>2</sup> Assets measured at the cost of ₩ 5,265,647 million and ₩ 4,972,284 million as of December 31, 2024 and 2023, respectively, are excluded as their carrying amounts are a reasonable estimate of fair value.

(\*)<sup>3</sup> 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.

- (7) Fair value hierarchy classifications of the financial instruments that are measured at or only disclosed their fair value as of December 31, 2024 and 2023 are as follows:

<b>December 31, 2024</b>				
<i>(In millions of Korean won)</i>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total balance</b>
<b>Assets</b>				
Financial assets at fair value through other comprehensive income	2,072,180	-	104,166	2,176,346
Financial assets at fair value through profit or loss	-	-	-	-
Other	-	-	373,681	373,681
<b>Liabilities</b>				
Current portion of debentures	-	7,737	-	7,737
Debentures	-	16,427	-	16,427

<b>December 31, 2023</b>				
<i>(In millions of Korean won)</i>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total balance</b>
<b>Assets</b>				
Financial assets at fair value through other comprehensive income	1,757,336	-	97,167	1,854,503
Financial assets at fair value through profit or loss	-	-	1	1
<b>Liabilities</b>				
Current portion of debentures	6,757	-	393,235	393,235
Debentures	-	21,695	-	21,695

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 reporting 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. 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 is determined by using valuation techniques. These valuation techniques maximize the use of observable market data where available and rely as little as possible on entity-specific estimates. If all significant inputs required to measure the fair value of 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 in line with the financial reporting timelines. 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 determined using forward exchange rates at the reporting date, with the resulting value discounted to present value

Other techniques, such as discounted cash flow analysis, binomial distribution model, etcetera, 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.

#### (8) Valuation technique and the inputs

The Company utilizes a present value technique to discount future cash flows using proper interest rates 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 December 31, 2024.

(In millions of Korean won, and percentage)

Classification	Fair value	Valuation technique	Level 3 inputs	Input range
<b>Financial assets at fair value through other comprehensive income</b>				
Samsung Venture Investment	36,253	Discounted cash flow	Permanent growth rate	1.0%
			Weighted average cost of capital	14.5%
MiCo Ceramics Co., Ltd.	49,794	Discounted cash flow	Permanent growth rate	0.0%
			Weighted average cost of capital	10.3%
Call option on equity instruments	373,681	Binomial model	Risk-free rate	2.7%
			Price Variance	47.6%

(9) Changes in Level 3 instruments for the years ended December 31, 2024 and 2023 are as follows:

(In millions of Korean won)	2024	2023
<b>Financial assets</b>		
Balance as of January 1	490,403	116,726
Acquisitions	-	27,784
Disposals	(2,942)	(343)
Amount recognized in profit or loss	(19,555)	365,451
Amount recognized in other comprehensive income	9,941	(19,215)
<b>Balance as of December 31</b>	<b>477,847</b>	<b>490,403</b>

(10) 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 income or loss before tax from changes in inputs for major financial instruments which are categorized within Level 3 and subject to sensitivity analysis are as follows:

(In millions of Korean won)

Classification	Favorable changes		Unfavorable changes	
	Profit or loss	Equity	Profit or loss	Equity
Financial assets at fair value through other comprehensive income <sup>(*)1</sup>	-	6,327	-	(4,182)
Other <sup>(*)2</sup>	127,996	-	(127,995)	-

(\*)1) For equity securities, changes in fair value are calculated by increasing or decreasing perpetual growth rate and weighted average cost of capital (-1.0%~1.0%), which are significant unobservable inputs.

(\*)2) Changes in fair value were calculated by increasing or decreasing underlying asset price (20%) and price volatility (10%), which are significant unobservable inputs.

## 29. Segment Information

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

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 year ended December 31, 2024

(In millions of Korean won)

	DX	DS	Total <sup>(*)</sup>
Revenue	109,294,016	108,861,352	209,052,241
Depreciation	565,540	29,518,534	30,285,298
Amortization	1,595,847	605,793	2,432,272
Operating profit	1,474,559	10,886,378	12,361,034

(\*) Other operating segments are not separately disclosed.

(2) For the year ended December 31, 2023

(In millions of Korean won)

**DX**

**DS**

**Total<sup>(\*)</sup>**

Revenue	106,661,889	65,438,933	170,374,090
Depreciation	534,813	24,882,772	25,619,594
Amortization	1,682,132	696,457	2,614,189
Operating profit	5,256,921	(16,788,154)	(11,526,297)

<sup>(\*)</sup> Other operating segments are not separately disclosed.

### 30. Related Party Transactions

#### (A) Subsidiaries

List of subsidiaries as of December 31, 2024 are as follows:

Region	Subsidiaries	Business	Percentage of ownership (%) <sup>(*)</sup>
America	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)	Research and Development (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 Lennox HVAC North America, LLC	Sale of air conditioning products	50.1
	Joyent, Inc.	Cloud services	100.0
	SmartThings, Inc.	Sale of smart home electronics	100.0
	TeleWorld Solutions, Inc. (TWS)	Deployment and optimization of network devices	100.0
	Samsung Semiconductor, Inc. (SSI)	Sale of semiconductor and display panels	100.0
	Samsung Federal, Inc. (SFI)	R&D	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.	Maintenance of semiconductor equipment	100.0
	Samsung Display America Holdings, Inc. (SDAH)	Management of overseas subsidiaries	100.0
	eMagin Corporation	Development and manufacture of display panels	100.0

Samsung Electronics Canada, Inc. (SECA)	Sale of electronic devices	100.0
AdGear Technologies Inc.	Digital advertising platforms	100.0
Sonio Corporation	Sale of medical software	100.0

(\*)

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

Region	Subsidiaries	Business	Percentage of ownership (%) <sup>(*)</sup>
America	Samsung Eletronica 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 CV (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 services	100.0
	Harman International Industries, Inc.	Management of overseas subsidiaries	100.0
	Harman Becker Automotive Systems, Inc.	Manufacture and sale of audio products and 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 and R&D	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 and R&D	100.0
Roon Labs, LLC.	Sale of audio products	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

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	Percentage of ownership (%) <sup>(*)</sup>
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 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
SAMSUNG Zhilabs, S.L.	Development and sale of network solutions	100.0
FOODIENT LTD.	R&D	100.0
Oxford Semantic Technologies Limited (OST)	R&D	100.0
Sonio SAS	Sales of software and 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 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

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	Percentage of ownership (%) <sup>(e)</sup>
Europe/CIS	AKG Acoustics GmbH	Manufacture and sale of audio products	100.0
	Apostera UA, LLC	Connected Service Provider	100.0
	Harman Audio Iberia Espana Sociedad Limitada	Sale of audio products	100.0
	Harman Becker Automotive Systems GmbH	Manufacture and sale of audio products and 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 and 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
	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 and R&D	100.0
	Harman International Romania SRL	R&D	100.0
	Harman Management GmbH	Management of overseas subsidiaries	100.0
	Harman Professional Kft	Manufacture of audio products and R&D	100.0
	Harman Professional Denmark ApS	Sale of audio products and R&D	100.0
	Red Bend Software SAS	Software design	100.0
	Studer Professional Audio GmbH	Sale of audio products and R&D	100.0
	Harman Connected Services OOO	Connected service provider	100.0
	Harman RUS CIS LLC	Sale of audio products	100.0

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	Percentage of ownership (%) <sup>(*)</sup>
Middle East & Africa	Samsung Gulf Electronics Co., Ltd. (SGE)	Sale of electronic devices	100.0
	Samsung Electronics Turkiye (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 Middle East and North Africa (SEMENA)	Management of overseas subsidiaries	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
Asia (Excluding China)	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
	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
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 Bangalore)	R&D	100.0
Samsung R&D Institute BanglaDesh Limited (SRBD)	R&D	100.0
Samsung Nepal Services Pvt, Ltd (SNSL)	Service	100.0

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Region	Subsidiaries	Business	(%) <sup>(*)</sup>
Asia  (Excluding China)	Samsung Japan Corporation (SJC)	Sale of semiconductor and display panels	100.0
	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 Connected Services Corp. India Pvt. Ltd.	Connected service provider	100.0
	Harman International (India) Private Limited	Sale of audio products and R&D	100.0
	Harman International Industries PTY Ltd.	Management of overseas subsidiaries	100.0
	Harman International (Thailand) Co., Ltd.	Manufacturing and sale of audio products	100.0
China	Harman International Japan Co., Ltd.	Sale of audio products and R&D	100.0
	Harman Singapore Pte. Ltd.	Sale of audio products	100.0
	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
	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
China	Samsung Electronics Suzhou Computer Co., Ltd. (SESC)	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/FPD 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 and 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 and R&D	100.0
Harman Technology (Shenzhen) Co., Ltd.	Sale of audio products and R&D	100.0

(\*) Ownership represents the Company's ownership of the voting rights in each entity, including subsidiaries' ownerships.

Percentage of ownership (%)<sup>(\*)</sup>

Region	Subsidiaries	Business	(%) <sup>(*)</sup>
Domestic	Samsung Display Co., Ltd.	Manufacture and sale of display panels	84.8
	SU Materials	Manufacture of display panel 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
	Stella Forest of Hope	Manufacture and processing of food products	100.0
	Mirero System Co., Ltd.	Development and supply of semiconductor process defect and quality control software	99.9
	Harman International Korea	Software development and supply	100.0
	Samsung Venture Capital Union #21	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #22	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #26	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #28	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #32	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #33	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #37	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #42	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #43	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #45	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #52	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #55	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #56	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #57	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #62	Venture capital investments in technology business	99.0
	Samsung Venture Capital Union #67	Venture capital investments in technology business	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
Semiconductor Ecosystem Private Equity Trust	Investment on semiconductor industry	66.7

(\*) 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 years ended December 31, 2024 and 2023 are as follows:

(In millions of Korean won)	Name of company <sup>(*)1</sup>	2024			
		Sales and other	Disposal of non- current assets	Purchases and other	Purchase of non- current assets
	Samsung Display Co., Ltd.	6,081,548	-	1,978,814	-
	Samsung Electronics America, Inc. (SEA)	29,191,890	49	239,434	-
	Samsung Asia Pte. Ltd. (SAPL)	45	-	19,630	-
	Samsung Austin Semiconductor LLC. (SAS)	92	-	4,998,728	-
	Samsung Semiconductor, Inc. (SSI)	42,993,409	-	952,847	-
	Harman and its subsidiaries <sup>(*)2</sup>	1,691	-	86,182	-
	Samsung (China) Semiconductor Co., Ltd. (SCS)	305,793	13,573	11,179,941	4,579
	Samsung (CHINA) Investment Co., Ltd. (SCIC)	2,623,756	-	14,749	-
	Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	2,822,390	461	22,021,129	4,070
Subsidiaries	Samsung India Electronics Private Ltd. (SIEL)	3,382,049	-	6,247,023	-
	Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	-	-	-	-
	Samsung Electronics Vietnam Co., Ltd. (SEV)	1,715,000	-	14,392,955	132
	Samsung Display Vietnam Co., Ltd. (SDV)	1,567,614	-	-	-
	Shanghai Samsung Semiconductor Co., Ltd. (SSS)	28,414,204	-	-	-
	Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	508,390	272	6,049,850	-
	Samsung Eletronica da Amazonia Ltda. (SEDA)	2,470,490	149	6,434	-
	Samsung Electronics (UK) Ltd. (SEUK)	1,921,656	-	116,400	-
	Thai Samsung Electronics Co., Ltd. (TSE)	2,283,763	20	2,158,606	-
	Samsung International, Inc. (SII)	259,766	1,753	7,316,100	-
	Samsung Electronics Taiwan Co., Ltd. (SET)	4,652,560	-	1,490	-

	SEMES Co., Ltd.	6,286	-	1,973,123	-
	Samsung Electronics GmbH (SEG)	3,367,756	-	7,298	-
	Samsung Electronics Mexico S.A. De C.V. (SEM)	2,982,398	-	10,331	-
	Samsung Electronics Europe Logistics B.V. (SELS)	6,291,992	-	3,153	-
	Samsung Electronics Benelux B.V. (SEBN)	931,126	-	937	-
	Others	50,898,717	22,109	13,541,160	7,969
	<b>Total</b>	<b>195,674,381</b>	<b>38,386</b>	<b>93,316,314</b>	<b>16,750</b>
Associates and joint ventures	Samsung SDS Co.,Ltd.	103,524	21,504	1,960,668	271,717
	Samsung Electro-Mechanics Co., Ltd.	37,521	-	793,001	-
	Samsung SDI Co., Ltd.	70,196	-	326,467	20,515
	Cheil Worldwide Inc.	34,803	-	934,551	7,125
	Others	641,033	122	982,206	8,264
	<b>Total</b>	<b>887,077</b>	<b>21,626</b>	<b>4,996,893</b>	<b>307,621</b>
Other related parties <sup>(*)3</sup>	Samsung C&T Co., Ltd.	12,795	-	119,056	5,658,238
	Others	629,744	-	642,110	161,448
	<b>Total</b>	<b>642,539</b>	<b>-</b>	<b>761,166</b>	<b>5,819,686</b>
Other	Samsung E&A Co., Ltd.	2,244	-	57,371	4,209,500
	S-1	8,812	-	452,836	38,931
	Others	207,490	-	251,877	894,163
	<b>Total</b>	<b>218,546</b>	<b>-</b>	<b>762,084</b>	<b>5,142,594</b>

(\*)1) Transactions with separate entities that are related parties of the Company.

(\*)2) Transactions with the intermediate parent company, 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 in accordance with the Monopoly Regulation and Fair Trade Act.

<i>(In millions of Korean won)</i>	<b>Name of company<sup>(*)1</sup></b>	<b>Sales and other</b>	<b>Disposal of non- current assets</b>	<b>Purchases and other</b>	<b>Purchase of non- current assets</b>
			-	-	-
	Samsung Display Co., Ltd.	347,653	-	1,842,995	10,406
	Samsung Electronics America, Inc. (SEA)	29,881,238	-	222,087	-
	Samsung Asia Pte. Ltd. (SAPL)	16,989,574	-	21,813	-
	Harman and its subsidiaries <sup>(*)2</sup>	938	-	56,890	-
	Samsung Austin Semiconductor LLC. (SAS)	2,823	4,610	4,109,744	1,657
	Samsung (China) Semiconductor Co., Ltd. (SCS)	83,033	38,085	8,691,615	12,435
	Samsung Semiconductor, Inc. (SSI)	21,587,458	-	682,687	-
	Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	4,338,706	196	20,044,847	591
	Samsung (CHINA) Investment Co., Ltd. (SCIC)	4,892,443	-	10,186	-
	Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	671,024	-	-	-
	Samsung India Electronics Private Ltd. (SIEL)	3,714,751	210	4,636,864	-
	Samsung Display Vietnam Co., Ltd. (SDV)	1,496,684	-	-	-
	Samsung Electronics Vietnam Co., Ltd. (SEV)	2,434,796	18	13,251,399	774
Subsidiaries	Samsung Eletronica da Amazonia Ltda. (SEDA)	1,449,960	-	13,791	-
	Shanghai Samsung Semiconductor Co., Ltd. (SSS)	15,336,448	-	-	-
	Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	542,912	4,101	5,209,254	-
	Thai Samsung Electronics Co., Ltd. (TSE)	2,085,433	-	2,062,771	-
	Samsung Electronics (UK) Ltd. (SEUK)	1,762,387	-	109,697	-
	SEMES Co., Ltd.	7,285	-	2,245,344	-
	Samsung Electronics Mexico S.A. De C.V. (SEM)	2,668,921	-	7,501	-
	Samsung Electronics GmbH (SEG)	3,620,706	-	7,018	-
	Samsung International, Inc. (SII)	264,826	51	6,397,400	-
	Samsung Electronics Taiwan Co., Ltd. (SET)	3,500,155	-	1,261	-
	Samsung Electronics Benelux B.V. (SEBN)	1,589,366	-	1,175	-
	Samsung Electronics Europe Logistics B.V. (SELS)	5,070,057	-	8,132	-
	Others	50,707,430	3,780	13,212,836	3,689
	<b>Total</b>	<b>175,047,007</b>	<b>51,051</b>	<b>82,847,307</b>	<b>29,552</b>
	Samsung SDS Co.,Ltd.	201,304	-	1,801,672	283,411

	Samsung Electro-Mechanics Co., Ltd.	65,765	-	786,087	-
Associates and joint ventures	Samsung SDI Co., Ltd.	68,343	-	374,035	31,668
	Cheil Worldwide Inc.	36,020	-	907,775	1,163
	Others	601,887	-	968,224	9,167
	<b>Total</b>	<b>973,319</b>	-	<b>4,837,793</b>	<b>325,409</b>
Other related parties	Samsung C&T Co., Ltd.	23,156	70	57,652	5,588,270
	Others	468,819	-	762,644	190,405
	<b>Total</b>	<b>491,975</b>	<b>70</b>	<b>820,296</b>	<b>5,778,675</b>
Other <sup>(*)3)</sup>	Samsung E&A Co., Ltd.	1,162	-	31,957	2,747,278
	S-1	4,532	-	444,657	23,479
	Others	200,836	-	281,667	512,899
	<b>Total</b>	<b>206,530</b>	-	<b>758,281</b>	<b>3,283,656</b>

(\*)1) Transactions with separate entities that are related parties of the Company.

(\*)2) Transactions with the intermediate parent company, 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 in accordance with the Monopoly Regulation and Fair Trade Act.

### (C) Balances of receivables and payables

Balances of receivables and payables arising from the sales and purchases of goods and services as of December 31, 2024 and December 31, 2023 are as follows:

		<b>December 31, 2024</b>	
<i>(In millions of Korean won)</i>		<b>Receivables</b>	<b>Payables</b>
	<b>Name of company<sup>(*)1)</sup></b>	<b>and other<sup>(*)2)</sup></b>	<b>and other<sup>(*)3)</sup></b>
	Samsung Display Co., Ltd.	64,853	218,158
	Samsung Electronics America, Inc. (SEA)	4,440,842	637,861
	Samsung Asia Pte. Ltd. (SAPL)	1,817	1,301
	Samsung Austin Semiconductor LLC. (SAS)	7,277	584,322
Subsidiaries	Samsung Semiconductor, Inc. (SSI)	11,910,574	340,273
	Harman and its subsidiaries <sup>(*)4)</sup>	8,749	20,906
	Samsung (China) Semiconductor Co., Ltd. (SCS)	59,706	970,717
	Samsung (CHINA) Investment Co., Ltd. (SCIC)	190,954	363,362
	Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	833,617	2,620,106

Samsung India Electronics Private Ltd. (SIEL)	696,280	430,196
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	3,256	-
Samsung Electronics Vietnam Co., Ltd. (SEV)	513,163	2,010,992
Samsung Display Vietnam Co., Ltd. (SDV)	97,479	362
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	4,859,048	82
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	137,456	620,008
Samsung Eletronica da Amazonia Ltda. (SEDA)	271,048	9,157
Samsung Electronics (UK) Ltd. (SEUK)	93,808	30,843
Thai Samsung Electronics Co., Ltd. (TSE)	98,027	262,109
Samsung International, Inc. (SII)	167,656	212,535
Samsung Electronics Taiwan Co., Ltd. (SET)	388,807	69,362
SEMES Co., Ltd.	81,448	699,286
Samsung Electronics GmbH (SEG)	16,599	95,727
Samsung Electronics Mexico S.A. De C.V. (SEM)	88,572	2,064
Samsung Electronics Europe Logistics B.V. (SELS)	424,204	244,987
Samsung Electronics Benelux B.V. (SEBN)	23,398	7,495
Other	6,759,498	3,156,728
<b>Total</b>	<b>32,238,136</b>	<b>13,608,939</b>
<hr/>		
Associates and joint ventures		
Samsung SDS Co., Ltd.	23,133	569,158
Samsung Electro-Mechanics Co., Ltd.	4,039	66,901
Samsung SDI Co., Ltd.	114,061	33,653
Cheil Worldwide Inc.	69	425,271
Others	156,624	197,504
<b>Total</b>	<b>297,926</b>	<b>1,292,487</b>
<hr/>		
Other related parties		
Samsung C&T Corporation	181,822	1,781,431
Others	14,747	179,533
<b>Total</b>	<b>196,569</b>	<b>1,960,964</b>
<hr/>		
Other <sup>(*)5</sup>		
Samsung E&A Co., Ltd.	475	1,870,246
S-1 Corporation	2,330	50,798
Others	3,489	599,373

Total	6,294	2,520,417
-------	-------	-----------

(\*) Transactions with separate entities that are related parties of the Company.

(\*\*) The Company has not recognized bad debt allowance in relation to the receivables due from subsidiaries as of December 31, 2024.

(\*\*\*) Payables and others include lease liabilities.

(\*\*\*\*) Transactions with the intermediate parent company, Harman International Industries, Inc. and its subsidiaries.

(\*\*\*\*\*) 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 FairTrade Act.

(In millions of Korean won)	Name of company <sup>(*)</sup>	December 31, 2023	
		Receivables	Payables
		and other <sup>(**)</sup>	and other <sup>(***)</sup>
Samsung Display Co., Ltd.		74,259	196,686
Samsung Electronics America, Inc. (SEA)		3,841,560	1,119,907
Samsung Asia Pte. Ltd. (SAPL)		2,091	1,147
Harman and its subsidiaries <sup>(****)</sup>		5,179	9,659
Samsung Austin Semiconductor LLC. (SAS)		9,575	303,203
Samsung (China) Semiconductor Co., Ltd. (SCS)		68,251	687,410
Samsung Semiconductor, Inc. (SSI)		5,271,414	209,789
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)		925,410	2,324,691
Samsung (CHINA) Investment Co., Ltd. (SCIC)		181,785	201,966
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)		2,760	-
Subsidiaries	Samsung India Electronics Private Ltd. (SIEL)	922,630	297,628
	Samsung Display Vietnam Co., Ltd. (SDV)	90,305	46
	Samsung Electronics Vietnam Co., Ltd. (SEV)	502,410	1,377,493
	Samsung Eletronica da Amazonia Ltda. (SEDA)	256,936	1,226
	Shanghai Samsung Semiconductor Co., Ltd. (SSS)	3,906,968	281
	Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	148,857	367,007
	Thai Samsung Electronics Co., Ltd. (TSE)	280,682	267,659
	Samsung Electronics (UK) Ltd. (SEUK)	64,642	40,118
	SEMES Co., Ltd.	68,340	917,707
	Samsung Electronics Mexico S.A. De C.V. (SEM)	252,813	2,021

Samsung Electronics GmbH (SEG)	72,258	4,448
Samsung International, Inc. (SII)	129,178	54,694
Samsung Electronics Taiwan Co., Ltd. (SET)	362,737	87,718
Samsung Electronics Benelux B.V. (SEBN)	52,172	6,266
Samsung Electronics Europe Logistics B.V. (SELS)	413,581	415
Other	6,556,255	2,607,878
<b>Total</b>	<b>24,463,048</b>	<b>11,087,063</b>
Samsung SDS Co., Ltd.	84,541	418,787
Samsung Electro-Mechanics Co., Ltd.	1,857	86,166
Associates and joint ventures	114,103	50,149
Samsung SDI Co., Ltd.	51	429,435
Cheil Worldwide Inc.	164,058	183,813
<b>Total</b>	<b>364,610</b>	<b>1,168,350</b>
Samsung C&T Corporation	190,443	1,876,745
Other related parties	13,835	149,585
<b>Total</b>	<b>204,278</b>	<b>2,026,330</b>
Samsung E&A Co., Ltd.	269	766,329
S-1 Corporation	598	39,223
Other <sup>(*)5</sup>	4,342	265,721
<b>Total</b>	<b>5,209</b>	<b>1,071,273</b>

(\*)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 December 31, 2023.

(\*)3) Payables and others include lease liabilities.

(\*)4) Transactions with the intermediate parent company, 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 in accordance with the Monopoly Regulation and Fair Trade Act.

- (D) For the years ended December 31, 2024 and 2023, the Company had no lending to its subsidiaries. The Company had no additional borrowings from its subsidiaries during the year ended December 31, 2024 and had borrowings amounting to ₩21,990,000 million during the year ended December 31, 2023. In addition, the Company had no lending to or borrowings from associates and joint ventures during the years ended December 31, 2024 and 2023. The borrowings from subsidiaries as of December 31, 2024 and 2023 amount to ₩21,990,000 million.
- (E) For the years ended December 31, 2024 and 2023, the Company invested ₩336,648 million and ₩49,318 million, respectively, in subsidiaries, and made a capital recovery of ₩319,943 million and ₩143,799 million from its investments in subsidiaries, respectively. In addition, the Company had no additional investment in associates and joint ventures and made no recovery from its investments in associates and joint ventures during the year ended December 31, 2024. The Company invested ₩58,982 million in associates and joint ventures and made a recovery of ₩518 million from its investments in associates and joint ventures during the year ended December 31, 2023.
- (F) For the years ended December 31, 2024 and 2023, the Company declared dividend of ₩1,610,832 million and ₩ 1,650,995 million, respectively, to related parties. In addition, for the years ended December 31, 2024 and 2023, the Company declared dividends of ₩128,232 million and ₩ 128,232 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 December 31, 2024 and December 31, 2023, there are no dividends payable to related parties.
- (G) For the years ended December 31, 2024 and 2023, the Company entered into lease agreements with its related parties amounting to ₩23,571 million and ₩182,860 million, respectively, and the lease payments made to the related parties were ₩60,211 million and ₩59,287 million, respectively.
- (H) As of December 31, 2024, the Company provides guarantees in relation to borrowings of the related parties (refer to Note 16).

(I) Key management compensation

The compensation paid or payable to key management (executive directors) for their services for the years ended December 31, 2024 and 2023 consists of:

(In millions of Korean won)	2024	2023
Short-term employee benefits	9,991	14,073
Post-employment benefits	600	557
Other long-term employee benefits	8,078	7,834

### 31. Subsequent Events

Based on a resolution by the board of directors on November 15, 2024, the Company is in the process of purchasing treasury shares. Subsequent to December 31, 2024, the Company acquired a total of 23.3 million shares (20.44 million ordinary shares and 2.86 million preferred shares).

## **6. Dividends**

### **6-1. Matters concerning the company's dividend policy**

We continue to work to enhance shareholder value alongside our efforts to strengthen competitiveness of our products and businesses. In accordance with the previous shareholder return policy covering FY2021 to FY2023, we distributed an annual return of 9.8 trillion won in regular dividends as a part of a total return of 50% of free cash flow. In January 2024, we announced our shareholder return policy for FY2024 to FY2026, which maintains the terms of the previous shareholder return policy: Samsung Electronics will pay an annual regular dividend of 9.8 trillion won as a part of total shareholder returns of 50% of the free cash flow for the period covering FY2024 to FY2026. At the close of each year, we will consider executing an early return of capital beyond regular dividends if we forecast there is potential for a significant surplus. Furthermore, the Company will consider implementing a new policy flexibly before the expiration of the policy for FY2024 to FY2026 in consideration of M&A activities and cash positions.

In November 2024, the Company announced a plan to buy back 10 trillion worth of shares over the following 12-month period. To enhance shareholder value, the Company repurchased 3 trillion won out of the 10 trillion won worth of shares and then cancelled the acquired shares in February 2025. In February 2025, the Company announced its plan to repurchase approximately 3 trillion won worth of shares out of the remaining 7 trillion to enhance shareholder value and for use in employee compensation.

### **6-2. Provision of predictability on dividends**

#### **A. Implementation of improvement measures for dividend procedure under the Articles of Incorporation**

Category	Current status and plan
Decision-making body on dividend amount under the Articles of Incorporation	- Quarterly dividends are determined by the Board of Directors, and year-end dividends are determined at the AGM
Possibility of setting the dividend record date after determining the dividend amount under the articles of incorporation	- Not possible
Future plans for implementing improvement measures for the dividend procedure	- Under review

#### **B. Confirmation date of year-end dividend amount and designation of dividend record date**

Category	Fiscal year-end month	Distribution	Confirmation date of dividend amount	Dividend record date	Provision of dividend predictability	Remarks
Year-end dividend	December 2023	O	March 20, 2024	December 31, 2023	X	-
Year-end dividend	December 2022	O	March 15, 2023	December 31, 2022	X	-
Year-end dividend	December 2021	O	March 16, 2022	December 31, 2021	X	-

The Company announced a three-year shareholder return policy (2024—2026) that distributes the same amount of quarterly dividends each year, providing predictability to shareholders

### 6-3. Other notes

#### Key dividend indices

Classification	2024	2023	2022
Par value per share (KRW)	100	100	100
Consolidated net profit (KRW mil)	33,621,363	14,473,401	54,730,018
Separate net profit (KRW mil)	23,582,565	25,397,099	25,418,778
EPS (KRW)	4,950	2,131	8,057
Total cash dividend (KRW mil)	9,810,767	9,809,438	9,809,438
Total stock dividend (KRW mil)	-	-	-
Dividend payout ratio (%)	29.2	67.8	17.9
Cash dividend yield (%)	Common	2.7	1.9
	Preferred	3.3	2.4
Stock dividend yield (%)	Common	-	-
	Preferred	-	-
Cash dividend per share (KRW)	Common	1,446	1,444
	Preferred	1,447	1,445
Stock dividend per share (share)	Common	-	-
	Preferred	-	-

Dividends were KRW 2,452,154 million (KRW 361 per share) in the first three quarters of 2024 and in the first three quarters of 2022 and 2023. For further information relating to total cash dividend, refer to retained earnings in 『3. Note to Consolidated Financial Statements』 in 『III. Financial Affairs』.

Consolidated net profit is equity attributable to owners of the parent.

EPS is 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』.

The 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
42	44	2.4%	2.6%

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 2.8% and 2.9% respectively. The “past 3 years” refers to the period from 2021 through 2023, and the “past 5 years” refers to the period from 2019 through 2023.

For the dividend yield of 2024, please refer to the table [Key dividend indices] above (common shares at 2.7%, preferred shares at 3.3%).

## 7. Matters about financing through the issuance of securities

### 7-1 Financing through the issuance of securities

#### [Issuance of equity securities]

Not Applicable

#### [Issuance of debt securities]

##### A. List of issued debt securities

(As of December 31, 2024) (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	147,000	7.7	Aa2(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	588,000	4.2	A (S&P)	May 15, 2025	Unredeemed	J.P.Morgan et al.
Total	-	-	-	735,000	-	-	-	-	-

##### B. Commercial Paper Unredeemed Balance

(Reporting Date: December 31, 2024) (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

(Reporting Date: December 31, 2024)

(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: December 31, 2024)

(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	595,350	7,350	7,350	-	-	-	-	610,050
	Private	-	-	-	-	-	-	-	-
	Total	595,350	7,350	7,350	-	-	-	-	610,050

- Corporate Bond Unredeemed Balance (Samsung Electronics)

(Reporting Date: December 31, 2024)

(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	7,350	7,350	7,350	-	-	-	-	22,050
	Total	7,350	7,350	7,350	-	-	-	-	22,050

- Corporate Bond Unredeemed Balance (Harman International Industries, Inc. and its subsidiaries)

(Reporting Date: December 31, 2024)

(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	588,000	-	-	-	-	-	-	588,000
	Total	588,000	-	-	-	-	-	-	588,000

※ The exchange rate as of the reporting date has been applied.

## E. Hybrid Bond Unredeemed Balance

Not Applicable

(Reporting Date: December 31, 2024)

(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: December 31, 202

(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: December 31, 2024)

(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	147,000	Oct 2, 1997	The Bank of New York Mellon Trust Company, N.A.

(Reporting Date: December 31, 2024)

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 0.0% of the total assets during 2024)
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.
- ※ Implementation status base date is the most recent reporting date of financial statements on which external auditor's opinion has been expressed.
- ※ 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

### [Equity Acquisition of eMagin Corporation]

On October 18, 2023, Samsung Display America Holdings, Inc.(SDAH), the company's subsidiary, acquired 100% ownership of eMagin Corporation (CEO: Andrew Sculley, Location: New York, USA) to secure technological competitiveness in micodisplay field.

### [Equity Sale of DOWOOINSYS]

On January 31, 2024, Samsung Diplay Co., Ltd., the company's subsidiary, sold 56.8% of equity stake in DOWOOINSYS held by Samsung Venture Investment Co. No. 29 and No.48 to three companies including Newpower Co., Ltd., to focus its capabiliites on main business and R&D amid increasingly intensified competition in OLED industry.

- (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.	Nov 08, 2025	-	-	-	1,278,000
SEM	Subsidiary	BBVA etc.	Dec 16, 2025	-	-	-	715,000
SAMCOL	Subsidiary	Citibank etc.	Dec 16, 2025	-	-	-	210,000
SEDA	Subsidiary	BRADESCO etc.	Dec 16, 2025	-	-	-	329,000
SECH	Subsidiary	Citibank etc.	Dec 16, 2025	-	-	-	64,000
SEPR	Subsidiary	BBVA etc.	Dec 16, 2025	-	-	-	150,000
SSA	Subsidiary	SCB etc.	Dec 16, 2025	-	-	-	318,000
SEMAG	Subsidiary	SocGen etc.	Dec 16, 2025	8,065	-8,065	-	46,000
SETK	Subsidiary	BNP etc.	Dec 16, 2025	320,893	174,428	495,321	947,000
SETK-P	Subsidiary	BNP etc.	Dec 16, 2025	-	-	-	70,000
SECE	Subsidiary	Citibank	Dec 16, 2025	-	-	-	114,000
SEEG	Subsidiary	HSBC	Jun 13, 2025	-	-	-	85,000

SEIN	Subsidiary	BNP etc.	Nov 08, 2025	-	-	-	70,000
SJC	Subsidiary	Mizuho Bank etc.	Dec 16, 2025	-	-	-	808,270
SEUC	Subsidiary	Credit Agricole etc.	Dec 16, 2025	-	-	-	125,000
SEDAM	Subsidiary	Citibank etc.	Dec 16, 2025	-	-	-	537,000
SECA	Subsidiary	BoA	Nov 08, 2025	-	-	-	70,000
SELA	Subsidiary	Citibank	Dec 16, 2025	-	-	-	60,000
SEEH	Subsidiary	HSBC etc.	Dec 16, 2025	-	-	-	906,400
SELV	Subsidiary	Citibank	Dec 16, 2025	-	-	-	10,000
SEIL	Subsidiary	Citibank	Dec 16, 2025	-	-	-	15,600
SAPL	Subsidiary	BOA etc.	Dec 16, 2025	-	-	-	404,000
SAVINA	Subsidiary	HSBC	Jun 13, 2025	-	-	-	51,000
SCIC	Subsidiary	HSBC etc.	Dec 16, 2025	-	-	-	270,000
SESP	Subsidiary	SCB	Nov 08, 2025	-	-	-	30,000
SME	Subsidiary	SCB	Nov 08, 2025	-	-	-	110,000
SAMEX	Subsidiary	Citibank	Dec 16, 2025	-	-	-	5,000
SEASA	Subsidiary	Citibank	Dec 16, 2025	-	-	-	2,000
SSAP	Subsidiary	SCB	Nov 08, 2025	-	-	-	35,000
SEPM	Subsidiary	HSBC	Jun 13, 2025	-	-	-	35,000
SESAR	Subsidiary	HSBC	Jun 13, 2025	-	-	-	20,000
SEUZ	Subsidiary	Citibank	Dec 16, 2025	-	-	-	10,000
AdGear Technologies Inc.	Subsidiary	BOA	Nov 08, 2025	-	-	-	2,000
Harman International Industries, Inc.	Subsidiary	JP Morgan	Jun 13, 2025	-	-	-	100,000
Harman International Japan Co., Ltd.	Subsidiary	MUFG	Nov 08, 2025	-	-	-	25,000
Harman Holding Limited	Subsidiary	HSBC	Jun 13, 2025	-	-	-	30,000
Harman do Brasil Industria Eletronica e Participacoes Ltda.	Subsidiary	SocGen	Nov 08, 2025	-	-	-	15,000
Harman da Amazonia Industria Eletronica e Participacoes Ltda.	Subsidiary	HSBC	Jun 13, 2025	-	-	-	30,000
SDN	Subsidiary	SIEL	Nov 24, 2027	510,977	-13,910	497,067	584,785
SAS	Subsidiary	Epcor	The date of debt expiration	-	-	-	340,000
SEA	Subsidiary	U.S Government	The date of debt expiration	-	-	-	6,435,000
Total				839,935	152,453	992,388	15,462,055

※ On a consolidated basis. Debt guarantees for SDN are provided 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 2024, the Company claimed approximately USD 2,215,000 in guarantee which has not yet been collected as of December 31, 2024.  
In 2024, Samsung Display Co., Ltd. claimed approximately USD 2,982,000 in guarantee fees to SDN and has not collected the amount as of December 31, 2024.

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

##### Emphasis of matter and key audit matter in Independent auditor's report

Period	Emphasis of matter	Key audit matter
2024	Not applicable	(Consolidated financial statement) 1. Assessment of depreciation commencement date of assets under construction 2. Accuracy and completeness of sales deduction related to sales promotion activities of products (Separate financial statement) 1. Assessment of depreciation commencement date of assets under construction 2. Accuracy and completeness of sales deduction related to sales promotion activities of products

2023	Not applicable	(Consolidated financial statement) 1. Valuation of memory semiconductor inventory at net realizable value 2. Accuracy and completeness of sales deduction related to sales promotion activities of products (Separate financial statement) 1. Valuation of memory semiconductor inventory at net realizable value 2. Accuracy and completeness of sales deduction related to sales promotion activities of products
2022	Not applicable	(Consolidated financial statement) 1. Sales deduction related to sales promotion activities of products (Separate financial statement) 1. Sales deduction related to 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:

Period	Account	Receivables amount	Allowance amount	Allowance
2024	Trade receivables	44,044,074	421,001	1.0%
	Short-term loans	119,558	94,051	78.7%
	Other receivables	9,707,716	84,742	0.9%
	Advances	1,366,329	4,573	0.3%
	Trade receivables (long-term)	27,641	-	0.0%
	Other receivables (long-term)	784,030	203	0.0%
	Advances (long-term)	5,997,761	6,802	0.1%
	Long-term loans	141,149	911	0.6%
	Total	62,188,258	612,285	1.0%
2023	Trade receivables	37,002,849	355,456	1.0%
	Short-term loans	21,279	204	1.0%
	Other receivables	6,715,263	82,015	1.2%
	Advances	994,525	3,316	0.3%
	Trade receivables (long-term)	23,889	-	0.0%
	Other receivables (long-term)	759,704	209	0.0%
	Advances (long-term)	4,964,481	9,255	0.2%
	Long-term loans	239,149	77,608	32.5%
	Total	50,721,139	528,063	1.0%
2022	Trade receivables	36,033,784	312,221	0.9%
	Short-term loans	22,403	215	1.0%
	Other receivables	6,227,068	77,859	1.3%
	Advances	1,741,031	3,965	0.2%

Period	Account	Receivables amount	Allowance amount	Allowance
	Trade receivables (long-term)	204,248	-	0.0%
	Other receivables (long-term)	824,468	242	0.0%
	Advances (long-term)	2,382,711	10,969	0.5%
	Long-term loans	225,983	1,206	0.5%
	Total	47,661,696	406,677	0.9%

※ Based on consolidated financial statements

※ Receivables amount represents the value after deducting present value discount account

### Allowance for bad debt by year

(KRW mil)

	2024	2023	2022
1. Allowance for bad debt (beginning balance)	528,063	406,677	397,525
2. Net bad debt expense (① – ②+③)	-22,558	14,647	16,658
① Bad debt expense, etc (Write-off)	10,834	19,179	9,711
② Bad debt recovered	-	4	-
③ Others	-33,392	-4,528	6,947
3. Bad debts expense	61,664	136,033	25,810
4. Allowance for bad debts (Ending balance)	612,285	528,063	406,677

※ 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: December 31, 2024)

(KRW mil, %)

	Less than 6 months	6 months ~ 1 year	1 year ~ 3 years	More than 3 years	Total
Amount	43,821,805	28,084	111,835	109,991	44,071,715
Ratio	99.4%	0.1%	0.3%	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:

Division	Category	2024	2023	2022	Note
DX	Finished goods	7,198,304	7,229,898	7,712,885	
	Work in process	1,130,657	967,513	1,013,606	
	Raw material	10,352,671	9,608,619	10,520,293	
	Material in transit	1,231,092	1,014,420	943,322	
	Total	19,912,724	18,820,450	20,190,106	
DS	Finished goods	5,394,407	6,476,768	6,601,087	
	Work in process	21,091,920	20,961,730	18,756,104	
	Raw material	3,134,003	3,484,046	3,639,061	
	Material in transit	68,244	76,226	61,352	
	Total	29,688,574	30,998,770	29,057,604	
SDC	Finished goods	458,697	284,394	811,518	
	Work in process	151,553	296,788	542,473	
	Raw material	575,119	564,573	788,521	
	Material in transit	15,672	6,509	23,626	
	Total	1,201,041	1,152,264	2,166,138	
Harman	Finished goods	916,269	725,484	799,919	
	Work in process	108,241	104,514	119,890	
	Raw material	680,564	700,011	913,085	
	Material in transit	401,238	319,785	269,715	
	Total	2,106,312	1,849,794	2,102,609	
Total	Finished goods	13,842,276	14,553,014	16,032,226	
	Work in process	22,340,482	22,198,448	20,077,519	
	Raw material	14,146,279	13,697,354	14,979,280	
	Material in transit	1,425,828	1,177,058	1,098,841	
	Total	51,754,865	51,625,874	52,187,866	
Inventory ratio (%) [Inventory ÷ Total Assets] × 100		10.1%	11.3%	11.6%	
Inventory turnover (x) [ Yearly COGS ÷ {(Beginning inventory + Ending inventory)÷2}]		3.6	3.5	4.1	

※ Based on consolidated financial statements

## Inventory counts

### (1) Inspection date

- End of May and November (twice a year)
- For the difference between the inspection date and year-end, the Company verifies receiving and shipping of inventory during the period thereby confirming existence of inventory on the reporting date.

### (2) Inspection method

- Internal warehouse: Closed & entire quantity inspection
- ※ Sample tests on semi-conductor and display panel in the production lines and SVC materials in automated warehouses
- Outside warehouse
  - Conduct both sample tests and total inspections on third-party inventory and inventory-in-transit by requiring their custodians to submit confirmation documents
  - External auditors join and observe the inspection and carry out sample tests to confirm the existence and completeness.
- ※ For the HQ, the most recent inventory inspection was conducted from Nov 30 to Dec 3, 2024, 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 December 31, 2024 are as follows:

Category	Acquisition cost	Inventory valuation reserve	Balance	(KRW mil) Note
Finished goods	15,061,526	-1,219,250	13,842,276	
Work in process	24,808,183	-2,467,701	22,340,482	
Raw material	15,442,327	-1,296,048	14,146,279	
Material in transit	1,425,828	-	1,425,828	
Total	56,737,864	-4,982,999	51,754,865	

※ Based on consolidated financial statements

## D. Supply contracts

As of December 31, 2024, there is no long-term agreement that has a material impact on the Company's financial statements.

## E. Fair value estimation

Refer to 3. Financial Instruments by Category and 28. Financial Risk Management in 『III. Financial Affairs』.

## IV Management Discussion and Analysis

### 1. 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

Please note that due to the aforementioned uncertainties, the Company’s actual future performance may differ materially from the contents explicitly or implicitly included in forecast information.

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

### 2. Overview

In 2024, the global economy faced a myriad of unfavorable business conditions, including a downturn in consumer sentiment, continued geopolitical tensions, and volatile exchange rates. In these conditions, Samsung Electronics posted total revenue of KRW 301 trillion and operating profit of KRW 33 trillion on a consolidated basis; and total revenue of KRW 209 trillion and an operating profit of KRW 12 trillion on a separate basis.

Our financial structure remained sound—we recorded a debt ratio of 27.9%, capital adequacy ratio of 78.2%, and ROE of 9.0% on a consolidated basis. On a separate basis, the respective figures were 37.5%, 72.7%, and 10.2%. Our brand value in 2024 was evaluated at USD 100.8 billion (Interbrand; October 2024), up 10% from last year’s figure and maintaining our position as the world’s fifth most valuable brand.

On the business side, the Company incorporated AI technology into a number of our lineups with the launches of Galaxy S24 series, Galaxy Z Fold6 and Galaxy Z Flip6; and with Vision AI, we offer tailored display experiences that further fortify our business leadership. For the semiconductor business, we are actively addressing the demand for high-value-added products such as HBM and DDR5.

In 2025, economic uncertainties are likely to be driven by the expansion of tariff-centered protectionist policies and exchange rate risks. With competition for leadership in the technology industry around AI and the rapidly changing industrial environment bringing both opportunities and risks, we will strive to improve our performance and secure growth engines based on continuous technological innovations and meticulous planning.

### 3. Financial position and performance (consolidated)

#### A. Financial position

Classification	2024	2023	Increase/decrease	(KRW mil) Change
Current assets	227,062,266	195,936,557	31,125,709	15.9%
- Cash and cash equivalents	53,705,579	69,080,893	-15,375,314	-22.3%
- Short-term financial instruments	58,909,334	22,690,924	36,218,410	159.6%
- Other current financial assets	36,877	635,393	-598,516	-94.2%
- Trade and other receivables	43,623,073	36,647,393	6,975,680	19.0%
- Inventories	51,754,865	51,625,874	128,991	0.2%
- Other current assets	19,032,538	15,256,080	3,776,458	24.8%
Non-current assets	287,469,682	259,969,423	27,500,259	10.6%
- Other non-current financial assets	11,756,681	8,912,691	2,843,990	31.9%
- Associates and joint ventures	12,592,117	11,767,444	824,673	7.0%
- Property, plant and equipment	205,945,209	187,256,262	18,688,947	10.0%
- Intangible assets	23,738,566	22,741,862	996,704	4.4%
- Other non-current assets	33,437,109	29,291,164	4,145,945	14.2%
Total assets	514,531,948	455,905,980	58,625,968	12.9%
Current liabilities	93,326,299	75,719,452	17,606,847	23.3%
Non-current liabilities	19,013,579	16,508,663	2,504,916	15.2%
Total liabilities	112,339,878	92,228,115	20,111,763	21.8%
Equity attributable to owners of the parent	391,687,603	353,233,775	38,453,828	10.9%
Non-controlling interest	10,504,467	10,444,090	60,377	0.6%
Total equity	402,192,070	363,677,865	38,514,205	10.6%
Total liabilities and equity	514,531,948	455,905,980	58,625,968	12.9%
Capital adequacy ratio	78.2%	79.8%	-1.6%p	
Debt-to-equity ratio	27.9%	25.4%	2.5%p	
Inventory turnover	3.6	4.1	-0.5	

Presented in accordance with K-IFRS.

If the agenda item related to the approval of financial statements is rejected or adjusted at the AGM, the details will be published in future reports.

Samsung Electronics' total assets in 2024 were KRW 514.5319 trillion, an increase of KRW 58.6260 trillion (12.9%) from the previous year. The increase is mainly attributable to liquid assets, including short-term financial products, which increased by KRW 31.1257 trillion, and to an increase in tangible assets caused by facility investments worth KRW 18.6889 trillion for the semiconductor and DP businesses.

Total liabilities were KRW 112.3399 trillion, an increase of KRW 20.1118 trillion (21.8%) from the previous year. This includes an increase of KRW 17.6068 trillion (23.3%) in current liabilities and an increase of KRW 2.5049 trillion (15.2%) in non-current liabilities. Total equity was KRW 402.1921 trillion, an increase of KRW 38.5142 trillion (10.6%) from the previous year.

In terms of financial ratios, the Company maintained a sound financial structure as the capital adequacy ratio decreased by 1.6%pts from the previous year to 78.2% and the debt-to-equity ratio increased by 2.5%pts from the previous year to 27.9%.

## B. Performance

Classification	2024	2023	Increase/decrease	Change
Sales	300,870,903	258,935,494	41,935,409	16.2%
Cost of sales	186,562,268	180,388,580	6,173,688	3.4%
Gross profit	114,308,635	78,546,914	35,761,721	45.5%
Selling and administrative expenses	81,582,674	71,979,938	9,602,736	13.3%
Operating profit	32,725,961	6,566,976	26,158,985	398.3%
Other income	1,960,338	1,180,448	779,890	66.1%
Other expenses	1,625,229	1,083,327	541,902	50.0%
Equity-method valuation gains	751,044	887,550	-136,506	-15.4%
Financial income	16,703,304	16,100,148	603,156	3.7%
Financial expenses	12,985,684	12,645,530	340,154	2.7%
Income before income tax expense	37,529,734	11,006,265	26,523,469	241.0%
Income tax expense	3,078,383	-4,480,835	7,559,218	-168.7%
Net income	34,451,351	15,487,100	18,964,251	122.5%
Equity attributable to owners of the parent	33,621,363	14,473,401	19,147,962	132.3%
Non-controlling interests	829,988	1,013,699	-183,711	-18.1%

Presented in accordance with K-IFRS

If the agenda item related to the approval of financial statements is rejected or adjusted at the AGM, the details will be published in future reports

For the full year in 2024, compared to last year, revenue increased by KRW 41.9354 (16.2%) trillion to KRW 300.8709 trillion, and operating profit increased by KRW 26.1590 trillion (398.3%) to KRW 32.7260 trillion. Compared to last year, income before income taxes increased by KRW 26.5235 trillion (241%) to KRW 37.5297 trillion, and net income increased by KRW 18.9643 trillion (122.5%) to KRW 34.4514 trillion.

We continued to maintain a sound financial structure, highlighted by a increase in ROE of 4.4%pts to 9.0%, and an increase in net profit ratio of 5.5%pts to 11.5%.

### [Performance by division]

Classification	Division	2024		2023		Change	
		Amount	Share	Amount	Share	Amount	(%)
Revenue	DX Division	174,887,683	58.1%	169,992,337	65.7%	4,895,346	2.9%

Classification	Division	2024		2023		Change	
		Amount	Share	Amount	Share	Amount	(%)
	DS Division	111,065,950	36.9%	66,594,471	25.7%	44,471,479	66.8%
	SDC	29,157,820	9.7%	30,975,373	12.0%	-1,817,553	-5.9%
	Harman	14,274,930	4.7%	14,388,454	5.6%	-113,524	-0.8%
	Overall revenue	300,870,903	100.0%	258,935,494	100.0%	41,935,409	16.2%
Operating profit	DX Division	12,439,897	38.0%	14,384,705	219.0%	-1,944,808	-13.5%
	DS Division	15,094,486	46.1%	-14,879,458	-226.6%	29,973,944	Turned to profit
	SDC	3,733,429	11.4%	5,566,478	84.8%	-1,833,049	-32.9%
	Harman	1,307,580	4.0%	1,173,702	17.9%	133,878	11.4%
	Overall operating profit	32,725,961	100.0%	6,566,976	100.0%	26,158,985	398.3%

Includes inter-divisional revenue and operating profit.

## (DX Division)

In the DX Division in 2024, compared to last year, revenue increased by KRW 4.8953 trillion (2.9%) to KRW 174.8877 trillion, but operating profit decreased by KRW 1.9448 trillion (13.5%) to KRW 12.4399 trillion.

Growth in the VD/DA businesses is centered on premium TVs, such as Neo QLED and micro LED that incorporate AI technology, and AI home appliances that provide differentiated user experiences.

For the VD business, we are increasing our share in the premium market, focusing on super-big TVs, and are developing technologies that provide personalized experiences.

We are expanding the Neo QLED product lineup to the 100- and 115-inch range, following the 98-inch model, and strengthening sales of 77- and 83-inch OLED products, while expanding the micro LED lineup to include 101-, 114-, and 144-inch products to broaden consumer options.

Also, our application of Vision AI to new premium products has increased the role of TVs, allowing them to anticipate user needs, preferences, and intentions to provide personalized experiences. Newly commercialized functions include Click to Search, which finds the information with a single click while watching content; Real-time Translation, which translates foreign content subtitles into Korean in real time, and Generated Background Image, which allows users to personalize screen backgrounds.

Based on positive responses for our new products and backed by supply chain continuity, Samsung has remained atop the global TV market for 19 consecutive years, spanning from 2006 to 2024.

In the Digital Appliance Business, we continue to launch products and services that not only offer advanced functions based on highly-efficient, eco-friendly technologies, but also increase convenience in our consumers' lives, leveraging our deep understanding of our consumers' changing life patterns. We are also offering differentiated user experience with AI appliances that connect various devices as well as a suite of services centering on Bixby and SmartThings.

In 2025, the Company will lead the market with strengthened market and consumer research and launches of innovative products. Furthermore, we will provide new experiences through further advancement of AI functionalities. In particular, for the highly-profitable HVAC business, we will continue to grow by targeting specialized channels with high-efficiency products.

In the MX business, we secured leadership in the mobile AI through the introduction of Galaxy AI and expanded sales of flagship products, resulting revenue growth for the year. In particular, the Galaxy S24 series, in which Galaxy AI made its debut, recorded double-digit growth in both volume and value, leading to solid growth in the flagship smartphone segment. The tablet and wearable product lines also grew in volume and value, centered on new premium products.

With Galaxy AI, users can enjoy a number of new AI experiences, including gesture-based searches, creative photo editing, real-time translation and interpretation, and convenient text summarization. In addition, Galaxy Z Fold6 and Galaxy Z Flip6 come equipped with Galaxy AI tailored to the foldable form factors, and they offer significantly improved product completeness in terms of performance and durability. In addition to smartphones, rich mobile experiences are available through numerous Galaxy Ecosystem products, such as tablets that provide productivity experiences, watches with advanced fitness and wellness functions, comfortable smart rings for personalized health information, and wireless earphones for immersive audio experiences.

Moreover, along with services such as Samsung Wallet, Samsung Health, and Bixby, our Multi Device Experience allows customers to experience consistent and natural connections regardless of the device they are using. We are strengthening strategic partnerships to expand our ecosystem while diversifying our revenue structure through our service businesses backed by our extensive global installed base.

In 2025, we will lead the mobile market with the Galaxy S25 series, providing even wider and more personalized AI usability and multimodal interactions based on One UI 7.0, our AI integrated platform, and we plan to extend these experiences to other form factors, including foldable devices. The Company will keep expanding and advancing Galaxy AI through R&D and strategic investments to provide new value to our customers on the back of our industry-leading R&D capabilities.

#### **(DS Division)**

For 2024, compared to last year, the DS Division returned to profit, with revenue increasing by KRW 44.4715 trillion (66.8%) to KRW 111.660 trillion and operating profit by KRW 29.9740 trillion to 15.945 trillion.

The Memory Business centered on strengthening its business competitiveness by responding promptly to market demand amid the trend of polarizing demand, with demand declining for PC and mobile and showing strength for high-spec products for servers. In 2025, we expect the memory industry to weaken in the short term and then recover from the second half, but it is necessary to continuously monitor variables that may widely impact the memory market, such as semiconductor export controls and macroeconomic trends. We will focus on expanding the production capacity of advanced technologies of DRAM and NAND to actively address future demand for high-value-added products.

For DRAM, we will expand sales of improved HBM3E products and develop and mass-produce HBM4 by the second half of the year to strengthen our competitiveness in the AI market. Moreover, we will work to increase DDR5 supply for servers and lead the market trend toward higher capacity with products such as 128GB and 256GB, which are required for AI servers. The Company will actively increase its proportion of high-value-added products by expanding 1b-nano based LPDDR5x to mobile as well as to PCs and servers.

For NAND, we will strengthen our leadership in the server market by actively addressing demand for high-capacity SSD, including QLC, and enhance product competitiveness by accelerating migration to the V8 and V9 processes.

The Foundry Business is likely to face weak demand and a delayed market recovery, but we are preparing across-the-board measures to adapt to market changes and strengthen our competitiveness. As securing mid-to long-term demand is crucial for advanced nodes, we are focusing on adding a variety of customers to our base by ensuring stable yields in existing mass production processes and through the timely development and mass-production of new processes. For mature nodes, we are expanding applications and diversifying the business by enhancing our process and product portfolio; and we will strengthen cost competitiveness through the expansion of high-margin products and mix optimizations.

The System LSI business is expected to face a decrease in demand due to the heightening of global and domestic macroeconomic uncertainties, and inventory normalization at major customers. However, we will prepare for market changes through the timely development of next-generation products, strengthening cooperation with customers, and improving cost competitiveness.

#### **(SDC)**

Compared to last year, SDC's revenue in 2024 decreased by KRW 1.8176 trillion (5.9%) to KRW 29.1578 trillion; and its operating profit declined by KRW 1.8330 trillion (32.9%) to KRW 3.7334 trillion.

The mobile panel business has responded to increasingly sophisticated consumer needs by establishing a diverse product portfolio and solidified its leadership in smartphone panels with differentiated technology and performance. The business also boasts a strengthened customer and product base thanks to continuing efforts to diversify applications to and within segments such as IT and auto.

The large panel business has maintained a stable sales base for QD-OLED TVs as the penetration rate of self-emitting products continues to expand. In monitors, we expanded sales in the gaming market thanks to additions to our high-performance lineups.

#### **(Harman)**

Harman's revenue in 2024 decreased by KRW 113.5 billion (0.8%) year-on-year to KRW 14.2749 trillion, but its operating profit increased by KRW 133.9 billion (11.4%) to KRW 1.3076 trillion.

Harman is maintaining its solid growth in automotive components and consumer audio and is expanding its business capabilities through convergences with mobile, IT, display, and semiconductor technologies in other sectors.

As a leader in the automotive components market, our products offer innovative technology while maintaining quality standards that are expected of premium brands. In particular, in the infotainment field, we preempted the market through our proactively approach to the full-scale transition from in-vehicle infotainment to the digital cockpit. In telematics control units (TCUs), we set the pace in technology development by becoming the first company to receive orders in the 5G industry while developing differentiated technologies and focusing on winning more orders. The car audio business is strengthening its global No.1 position and providing immersive in-vehicle experiences through differentiated technologies. In preparation for changes in the driving environment that will unfold in the future era of autonomous driving, we will focus on enhancing in-vehicle user experiences and providing distinct experiences by expanding the supply of vehicle displays, head-up display, software service solutions, and more.

In the consumer audio market, we have leveraged our innovative technologies to firmly establish the brand's reputation among everyday listeners and enthusiasts alike. In particular, JBL has maintained its No.1 position in the global Bluetooth speaker market since 2015, and it is sustaining notable growth momentum in the headphone and wireless earphone markets.

In addition, by utilizing various technologies of the strategically acquired Roon, we aim to create synergies with other business areas and continue to lead the industry.

### **C. New and closed businesses**

Not Applicable

### **D. Changes in organizational structure**

In December 2021, the Company merged and restructured the CE and IM Divisions to form the DX Division and renamed the Mobile Communications Business to the MX Business. Also, SDC and the DS Division have been separated to align with the corporate organizational structure.

As of December 2021

	<b>Before</b>	<b>After</b>
Business organization	CE Division (Visual Display, Digital Appliances, Health & Medical Equipment)	DX Division (Visual Display, Digital Appliances, Health & Medical Equipment, Mobile eXperience, Network)
	IM Division (Mobile, Network)	DS Division (Memory, System LSI, Foundry)
	DS Division (Memory, System LSI, Foundry, Display Panel)	SDC (Display Panel)
	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)	Americas (DS), Europe (DS), China (DS), Southeast Asia (DS), Japan (DS)
---	---

## E. Foreign exchange risk

The Company experiences currency gains and losses based on the different functional currency of each entity due to global operations. As such, the Company is exposed to foreign currency volatility from exchange positions of currencies, especially related to the US dollar, and Euro.

Closing rate end at year-end by currency

(KRW)

Currency	2024	2023	Change	Change (%)
USD	1,470.00	1,289.40	180.60	14.0%
EUR	1,528.73	1,426.59	102.14	7.2%

The foreign currency exposure to financial assets and liabilities of a 5% currency rate change against the Korean won (before income tax) are presented below:

(KRW mil)

Currency	December 31, 2024		December 31, 2023		
	Increase	Decrease	Increase	Decrease	
USD	365,273	-365,273	418,776	-418,776	
EUR	88,649	-88,649	151,740	-151,740	

To minimize foreign exchange risk arising from operating activities, the Company maintains the same level of equity and liability in each currency. To minimize foreign exchange positions, the Company's foreign exchange management policy requires normal business transactions (including imports and exports) as well as financing transactions (such as deposits/borrowings) to be in the functional currency or for the cash-in currency to be matched up with the cash-out currency. However, when some foreign exchange positions arise, the impact of foreign exchange fluctuation is to be mitigated through measures such as bond sales and forward exchanges. While such means can reduce foreign exchange risk, they can't remove the risk entirely. The company regularly monitor and assess the foreign exchange risk to efficiently manage the risk and strictly prohibit speculative foreign exchange transactions.

## F. Recognition of asset impairment loss

The Company conducts an annual review on asset impairment of CGUs (cash generating unit). The recoverable amount of a CGU is based on the calculation of value in use, and the value in use is calculated using a BTFC (before tax cash flow) assumption that based on the financial budget for the next five years (or longer if mid- to long-term plans for new businesses with emerging technologies are deemed appropriate) approved by the management committee. In calculating terminal-year cash flow for period that exceeds the term, assumption of fixed average growth (does not exceed industry average) was used.

Impairment losses are recognized to the extent the carrying amount exceeds the recoverable amount of a CGU. The recoverable amount is determined by choosing the greater figure between the use-value and fair-value, which deducts the disposal amount per cost. Recognized impairment gains or losses reached KRW 396.4 billion for tangible assets and KRW 26.2 billion for intangible assets.

Refer to 『3. Notes to consolidated financial statements』 of 『III. Financial Affairs』 and 『B. Equity Investments in other corporations』 of 『IX. Affiliates and Subsidiaries』 for more details about asset impairment loss.

## 4. Liquidity, financing, and expenditure

Liquidity risk refers to the possibility of a company having difficulties in fulfilling its obligations related to financial liabilities. Our main sources of liquidity are cash generated by business operations and funds procured from capital market and financial institutions. The main demands on our liquidity include investment for production and R&D, working capital, and dividend payouts. The nature of our business requires making large investments, so maintaining an adequate level of liquidity risk is crucial. The Company maintains and manages an adequate level of liquidity by 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 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 potential large-scale liquidity needs. As of end-2023, our investment ratings from international rating agencies Moody's and S&P are Aa2 and AA-, respectively, allowing us to raise capital in the capital market in a timely manner.

### A. Current status of liquidity

In 2024, the Company has ample liquidity, and its cash coverage (liquid funds/borrowings) is 583%.

	2024	2023	
Cash coverage (liquid funds/borrowings)	583%	728%	
(KRW mil)			
Classification	2024	2023	Change
<b>Liquid funds</b>			
Cash and cash equivalents	53,705,579	69,080,893	-15,375,314
Short-term financial instruments	58,909,334	22,690,924	36,218,410
Short-term financial assets at amortized cost	-	608,281	-608,281
Financial assets at fair value through profit or loss	36,877	27,112	9,765
<b>Total financial assets</b>	<b>112,651,790</b>	<b>92,407,210</b>	<b>20,244,580</b>
<b>Borrowings</b>			
Short-term borrowings	13,172,504	7,114,601	6,057,903
Current portion of long-term liabilities	2,207,290	1,308,875	898,415
Debentures	14,530	537,618	-523,088
Long-term borrowings	3,935,860	3,724,850	211,010
<b>Total financial liabilities</b>	<b>19,330,184</b>	<b>12,685,944</b>	<b>6,644,240</b>
<b>Net cash (liquid funds – borrowings)</b>	<b>93,321,606</b>	<b>79,721,266</b>	<b>13,600,340</b>

Current portion of long-term liabilities is current portion of long-term borrowings and current portion of debentures

As of the end of 2024, the Company had KRW 112.6518 trillion of liquid funds. These liquid funds include: i) cash and cash equivalents; ii) short-term financial instruments; iii) short-term financial assets at amortized cost; and iv) financial assets at fair value through other comprehensive income. This balance increased by KRW 20.2446 trillion from KRW 92.4072 trillion at the end of the previous year.

The Company's borrowings (including debentures) are KRW 19.3302 trillion, an increase of KRW 6.6442 trillion from KRW 12.6859 trillion at the end of the previous year.

The Company's liquidity includes an inflow of KRW 72.9826 trillion in cash flows from operating activities and an outflow of KRW 53.7416 trillion in acquisition of tangible and intangible assets, and KRW 10.8887 trillion in dividends. The Company's net cash (liquid funds – borrowings) in 2024 is KRW 93.3216 trillion, which is an increase of KRW 13.6003 trillion from KRW 79.7213 trillion at the end of the previous year.

## B. Financing and expenditures

### (Borrowings)

As of December 31, 2024, the Company's borrowings (including debentures) are presented below:

(KRW mil)				
Classification	Creditor	Annual interest rate (%)	2024	2023
Short-term borrowings				
Collateralized borrowings	Woori Bank, etc.	0.4–14.9	12,840,396	6,610,049
Non-collateralized borrowings	CitiBank, etc.	0.0–53.0	332,108	504,552
Total short-term borrowings			13,172,504	7,114,601
Liquid long-term borrowings				
Bank borrowings	BNP, etc.	0.0–55.3	510,756	304,082
Capital lease liabilities	CSSD, etc.	4.6	1,100,526	998,439
Total liquid long-term borrowings			1,611,282	1,302,521
Long-term borrowings				
Bank borrowings	-	0.0–7.4	6,537	-
Capital lease liabilities	CSSD, etc.	4.6	3,929,323	3,724,850
Total long-term borrowings			3,935,860	3,724,850

(KRW mil)					
Classification	Issuance date	Maturity date	Annual interest rate (%)	2024	2023
USD denominated Straight Bonds	1997.10.02	2027.10.01	7.7	22,050 (USD 15,000,000)	25,788 (USD 20,000,000)
USD denominated Debenture Bonds	2015.05.11	2025.05.15	4.2	588,000 (USD 400,000,000)	515,760 (USD 400,000,000)
<b>Sub Total</b>				<b>610,050</b>	<b>541,548</b>
Premium on bonds payable (discount on bonds payable)				488	2,424
<b>Total</b>				<b>610,538</b>	<b>543,972</b>
Deduction: Current debentures				-596,008	-6,354
Non-current debentures				14,530	537,618

## (Borrowings and payment of borrowings)

The Company's short-term borrowing increases or decreases depending on the discount amount of trade receivables. In 2024, short-term borrowing increased by KRW 6.579 trillion, while KRW 0.5198 trillion of long-term borrowing increased due to increased capital lease liabilities.

### (Plan for payment of borrowings)

(KRW mil)

Year of payment	Amount of payment
2025	15,582,837
2026	1,054,870
2027	835,793
2028	642,638
2029~	1,969,015
Total	20,085,153

Amount calculated excluding bond discount, premium on bonds payable, and present value of bonds payable discount

## (Compliance to bond management contract conditions)

The Company's bonds are subject to conditions to protect investors such as constraint on collateral, constraint on disposal of assets, etc., and the Company complies with these conditions.

## 5. Off-balance sheet activities

- Refer to 『3. Notes to consolidated financial statements』 and 『5. Notes to non-consolidated financial statements』 in 『III. Financial Affairs』.

## 6. Other information for investment decision making

### A. Significant accounting policies and estimation

- The Company applied the following amended standards for the first time for the annual reporting period commencing on January 1, 2024:

#### Amendments to Korean IFRS 1001, Presentation of Financial Statements

The amendments to Korean-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 management's intentions or expectations about 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 includes the transfer to the counterparty of the entity's own equity instruments, however, it would be excluded if an option to settle the liability by the transfer of the entity's own equity instruments is recognized separately from the liability as an equity component of a compound financial instrument. The adoption of the amendments does not have a significant impact on the Company's consolidated financial statements.

#### Amendments to Korean IFRS 1116, Leases

The amendments add requirements for the subsequent measurement of sale-and-leaseback transactions that are accounted for as sales in accordance with Korean IFRS 1115, *Revenue from Contracts with Customers*. The amendments require the seller-lessee to calculate the 'lease payments' or 'revised lease payments' in a way that does not result in the seller-lessee recognizing any gain or loss for the rights of use that the seller-lessee continues to retain after the lease commences. The adoption of the amendments does not have a significant impact on the Company's consolidated financial statements.

## Amendments to Korean IFRS 1007, Statement of Cash Flows, and 1107, Financial Instruments: Presentation

The amendments to Korean IFRS 1007, Statement of Cash Flows, introduce new disclosures, such as terms and conditions, balance payment due dates and the effects on cash flows, to help users of the financial statements to assess the effects of supplier financing arrangements on an entity's liabilities and cash flows. The amendments to Korean IFRS 1107, Financial Instruments: Presentation, requires disclosure of information about an entity's exposure to concentrations of liquidity related to supplier financing arrangement. The adoption of the amendments does not have a significant impact on the Company's separate financial statements.

### **B. Environment and employees**

- Refer to 『3. Matters related to sanctions』 in 『XI. Other information』 for environmental sanctions or administrative actions.
- No significant changes in employee positions during this period.

### **C. Legal regulations**

- Refer to 『3. Matters related to sanctions』 in 『XI. Other information』 for major legal regulations on the Company's businesses.

### **D. Derivatives and risk management policy**

- To manage exchange rate risk, overseas companies hedge by buying or selling currency forwards for a foreign currency position that is not among the companies' functional currencies.
- Refer to 『5. Risk management and derivative trading』 in 『II. Businesses Overview』 and 『3. Notes to Financial Statements』 in 『III. Financial Affairs』 for the Company's key derivatives and risk management policy.

## V Auditor's Report

### **1. Introduction**

Samjong KPMG conducted audit on the consolidated/separate financial statements of the Company for the year ended December 31, 2023 and 2024 and with unqualified opinions. Deloitte Anjin conducted audit on the consolidated/separate financial statements of the Company for the year ended December 31, 2022 and expressed an unqualified opinion.

All of the Company's subsidiaries received unqualified opinions for the disclosure periods.

Period end	Company Auditor	Audit Opinion	Emphasis of Matter	Key Audit Matter(s)
Dec 31, 2024	Samjong KPMG	Unqualified	Not applicable	(Consolidated financial statement) 1. Assessment of depreciation commencement date of assets under construction 2. Accuracy and completeness of sales deduction related to sales promotion activities of products (Separate financial statement) 1. Assessment of depreciation commencement date of assets under construction 2. Accuracy and completeness of sales deduction related to sales promotion activities of products
Dec 31, 2023	Samjong KPMG	Unqualified	Not applicable	(Consolidated) 1. Valuation of memory semiconductor inventory at net realizable value 2. Accuracy and completeness of sales deduction related to sales promotion activities of products (Separate) 1. Valuation of memory semiconductor inventory at net realizable value 2. Accuracy and completeness of sales deduction related to sales promotion activities of products
Dec 31, 2022	Deloitte Anjin	Unqualified	Not applicable	(Consolidated) 1. Sales deduction related to sales promotion activities of products (Separate) 1. Sales deduction related to 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
Year ended Dec 31, 2024	Samjong KPMG	- Review of the interim separate/consolidated financial statements - Audit of separate/consolidated financial statements - Audit of separate/consolidated Internal Control over Financial Reporting	7,800	78,000	7,800	76,830
Year ended Dec 31, 2023	Samjong KPMG	- Review of the interim separate/consolidated financial statements - Audit of separate/consolidated financial statements - Audit of separate/consolidated Internal Control over Financial Reporting	7,800	85,700	7,800	85,036
Year ended Dec 31, 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	8,424	78,146

&lt;Review plan for the period ended December 31, 2024&gt;

Review Period		Planned Dates
2024 1Q	Pre-review	Mar 11, 2024 ~ Mar 29, 2024
	Review	Apr 8, 2024 ~ May 14, 2024
2024 2Q	Pre-review	Jun 10, 2024 ~ Jun 27, 2024
	Review	Jul 8, 2024 ~ Aug 13, 2024
2024 3Q	Pre-review	Sep 9, 2024 ~ Sep 27, 2024
	Review	Oct 8, 2024 ~ Nov 13, 2024
Audit of IT systems and automated internal controls		Apr 3, 2024 ~ Jan 31, 2025
Early substantive audit procedures (annual audit)		Mar 6, 2024 ~ Dec 29, 2024
Audit of Internal Control over Financial Reporting ("ICFR")		Apr 3, 2024 ~ Jan 31, 2025
Update of early substantive audit procedures and audit of financial statements		Jan 2, 2025 ~ Feb 18, 2025

\* Above schedule is for the review and audit of separate and consolidated financial statements, and audit of Internal Control over Financial Reporting ("ICFR")

## [Non-Audit Service Contract Description]

(KRW mil)

Fiscal Period	Contract Date	Non-audit Service Description	Period for Service	Compensation	Note
Year ended Dec 31, 2024	Feb 2017 Sep 2018 May 2019	Tax advisory services(overseas subsidiaries) Tax advisory services(overseas subsidiaries) Tax advisory services(overseas subsidiaries)	Jan – Jun 2024 Jan – May 2024 Jan – Jun 2024	43 - 73	Samjong KPMG
Year ended Dec 31, 2023	Feb 2017 Sep 2018 May 2019 May 2023	Tax advisory services(overseas subsidiaries) Tax advisory services(overseas subsidiaries) Tax advisory services(overseas subsidiaries) ESG certification(domestic subsidiaries)	Jan – Dec 2023 Jan – Dec 2023 Jan – Dec 2023 May – Jul 2023	202 27 79 25	Samjong KPMG
Year ended Dec 31, 2022	-	-	-	-	-

[Details of internal audit committee's discussion with Auditors]

No.	Date	Participants	Method	Details of discussion
1	Jan 29, 2024	Audit Committee: 3 members Company: Head of Audit Team Auditor: Signing partner and 5 others	Face-to-face meeting	<ul style="list-style-type: none"> <li>- Annual audit plan and its progress</li> <li>- Key Audit Matters and other areas of focus</li> <li>- Progress of audit of Internal Control over Financial Reporting</li> <li>- Other required communications at the completion stage of the audit</li> </ul>
2	Apr 26, 2024	Audit Committee: 3 members Company: Head of Audit Team Auditor: Signing partner and 5 others	Face-to-face meeting	<ul style="list-style-type: none"> <li>- Reporting on progress of quarterly review</li> <li>- Audit plan for the year 2024</li> <li>- Other required communications at the planning stage of the audit</li> </ul>
3	Jul 29, 2024	Audit Committee: 3 members Company: Head of Audit Team Auditor: Signing partner and 5 others	Face-to-face meeting	<ul style="list-style-type: none"> <li>- Reporting on progress of yearly audit</li> <li>- Plan for the Key Audit Matters selection</li> <li>- Discussion of quarterly review focus areas and other required communications</li> </ul>
4	Oct 25, 2024	Audit Committee: 3 members Company: Head of Audit Team Auditor: Signing partner and 5 others	Face-to-face meeting	<ul style="list-style-type: none"> <li>- Reporting on progress of yearly audit</li> <li>- Plan for the Key Audit Matters selection</li> <li>- Progress of audit of Internal Control over Financial Reporting</li> <li>- Discussion of quarterly review focus areas and other required communications</li> </ul>
5	Nov 27, 2024	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"> <li>- Reporting on progress of yearly audit</li> <li>- Plan for the Key Audit Matters selection</li> </ul>
6	Jan 24, 2025	Audit Committee: 3 members Company: Head of Audit Team Auditor: Signing partner and 5 others	Face-to-face meeting	<ul style="list-style-type: none"> <li>- Reporting on progress of yearly audit</li> <li>- Key Audit Matters and other areas of focus</li> <li>- Progress of audit of Internal Control over Financial Reporting</li> <li>- Other required communications at the completion stage of the audit</li> </ul>

## **2. Change of Independent Auditor**

There are 228 subsidiaries as of December 31, 2024. During the period ended December 31, 2024, Harman International Industries, Inc. and 16 other overseas subsidiaries changed its external auditor from PwC to KPMG, and Harman International Korea, Inc., the Company's domestic subsidiary, changed from Samil PwC to Samjong KPMG. Samsung Venture Capital Union #67 and Samsung Electronics Middle East and North Africa, established during the year 2024, have appointed Samjong KPMG and KPMG as external auditors, respectively. Also, eMagin Corporation, newly acquired in 2023, and Samsung Federal Inc., established in 2023, appointed KPMG as external auditor. Appointment of external auditor is decided at each entity's own discretion.

Details of change in subsidiaries' external auditors during the period are as follows:

Subsidiaries	Previous auditor	Current Auditor
Harman International Korea, Inc.	Samil PwC	Samjong KPMG
Harman International Industries, Inc.	PwC	KPMG
Harman (China) Technologies Co., Ltd.	PwC	KPMG
Harman (Suzhou) Audio and Infotainment Systems Co., Ltd.	PwC	KPMG
Harman Automotive Electronic Systems (Suzhou) Co., Ltd.	PwC	KPMG
Harman Commercial (Shanghai) Co., Ltd.	PwC	KPMG
Harman Connected Services Solutions (Chengdu) Co., Ltd.	PwC	KPMG
Harman Holding Limited	PwC	KPMG
Harman International (China) Holdings Co., Ltd.	PwC	KPMG
Harman Technology (Shenzhen) Co., Ltd.	PwC	KPMG
Harman Becker Automotive Systems GmbH	PwC	KPMG
Harman Becker Automotive Systems Manufacturing Kft	PwC	KPMG
Harman Connected Services GmbH	PwC	KPMG
Harman Consumer Nederland B.V.	PwC	KPMG
Harman Deutschland GmbH	PwC	KPMG
Harman Holding GmbH & Co. KG	PwC	KPMG
Harman Hungary Financing Ltd.	PwC	KPMG
Harman Professional Kft	PwC	KPMG

The Company has changed its external auditor from Deloitte Anjin to Samjong KPMG since 2023. Upon the expiration of contract with Deloitte Anjin at the end of 2022, which was the designated auditor, the audit committee has newly appointed Samjong KPMG as the Company's external auditor for three years for the period 2023-2025, in accordance with Article 10 (1), (3) and (4) of the "Act on External Audit of Stock Companies".

For the year ended December 31, 2023, the Company holds 232 subsidiaries. In 2023, 8 domestic subsidiaries, including Samsung Display Co., Ltd., changed external auditor from Deloitte Anjin to Samjong KPMG and SU Materials Co., Ltd. from E&Y Hanyoung to Samjong KPMG. Among overseas subsidiaries, 30 companies including Samsung Electronics America, Inc. (SEA) switched from Deloitte to KPMG, 65 including Samsung (China) Semiconductor Co., Ltd. (SCS) from PwC to KPMG, 6 including Samsung Electronics Benelux B.V. (SEBN) from E&Y to KPMG, and Laos Samsung Electronics Sole Co., Ltd (LSE) from KPP Co., Ltd to KPMG. Samsung Venture Investment Co. No. 62 established in 2023 and Stellar Forest of Hope established in 2022 appointed Samjong KPMG, and Samsung Electronics Uzbekistan FC LCC (SEUZ) and DOWOOINSYS VINA COMPANY LIMITED appointed KPMG as their external auditors. As the Company switched its external auditor, those subsidiaries newly designated and shifted their auditors in pursuit of efficient consolidated audit at each entity's own discretion.

Details of change in subsidiaries' external auditors during the year are as follows:

Subsidiaries	Previous auditor	Current Auditor
Samsung Display Co., Ltd.	Deloitte Anjin	Samjong KPMG
Samsung Electronics Service Co., Ltd.	Deloitte Anjin	Samjong KPMG
Samsung Electronics Service CS Co., Ltd.	Deloitte Anjin	Samjong KPMG
Samsung Electronics Sales Co., Ltd.	Deloitte Anjin	Samjong KPMG
Samsung Electronics Logitech Co., Ltd.	Deloitte Anjin	Samjong KPMG
Dowooinsys Co., Ltd.	Deloitte Anjin	Samjong KPMG
Gf-System Co., Ltd.	Deloitte Anjin	Samjong KPMG
Mirero System Co., Ltd.	Deloitte Anjin	Samjong KPMG
SU Materials Co., Ltd.	E&Y Hanyoung	Samjong KPMG
Samsung Electronics America, Inc. (SEA)	Deloitte	KPMG
Samsung Semiconductor, Inc. (SSI)	Deloitte	KPMG
Samsung Mexicana S.A. de C.V (SAMEX)	Deloitte	KPMG
Samsung International, Inc. (SII)	Deloitte	KPMG
Samsung Austin Semiconductor LLC. (SAS)	Deloitte	KPMG
Samsung Electronics Mexico S.A. De C.V. (SEM)	Deloitte	KPMG
Samsung Electronics (UK) Ltd. (SEUK)	Deloitte	KPMG
Samsung Electronics Holding GmbH (SEHG)	Deloitte	KPMG
Samsung Semiconductor Europe GmbH (SSEG)	Deloitte	KPMG
Samsung Electronics GmbH (SEG)	Deloitte	KPMG
Samsung Semiconductor Europe Limited (SSEL)	Deloitte	KPMG
Samsung Vina Electronics Co., Ltd. (SAVINA)	Deloitte	KPMG
Samsung Electronics Singapore Pte. Ltd. (SESP)	Deloitte	KPMG
Samsung Asia Pte. Ltd. (SAPL)	Deloitte	KPMG
Samsung Electronics Australia Pty. Ltd. (SEAU)	Deloitte	KPMG
Thai Samsung Electronics Co., Ltd. (TSE)	Deloitte	KPMG
Samsung Display Vietnam Co., Ltd. (SDV)	Deloitte	KPMG
Samsung R&D Institute BanglaDesh Limited (SRBD)	Deloitte	KPMG
Samsung Electronics Vietnam Co., Ltd. (SEV)	Deloitte	KPMG
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	Deloitte	KPMG
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	Deloitte	KPMG
Samsung (CHINA) Investment Co., Ltd. (SCIC)	Deloitte	KPMG
Samsung Electronics Taiwan Co., Ltd. (SET)	Deloitte	KPMG
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	Deloitte	KPMG
Samsung Gulf Electronics Co., Ltd. (SGE)	Deloitte	KPMG
Samsung Electronics Saudi Arabia Ltd. (SESAR)	Deloitte	KPMG
Samsung Electronics South Africa(Pty) Ltd. (SSA)	Deloitte	KPMG
Samsung Electronics Turkiye (SETK)	Deloitte	KPMG
Samsung Electronics Industry and Commerce Ltd. (SETK-P)	Deloitte	KPMG
Samsung Eletronica da Amazonia Ltda. (SEDA)	Deloitte	KPMG
Samsung Japan Corporation (SJC)	PwC	KPMG
Samsung R&D Institute Japan Co. Ltd. (SRJ)	PwC	KPMG
Samsung Electronics Japan Co., Ltd. (SEJ)	PwC	KPMG
Samsung Oak Holdings, Inc. (SHI)	PwC	KPMG
Samsung Electronics Canada, Inc. (SECA)	PwC	KPMG
Samsung Research America, Inc (SRA)	PwC	KPMG
SAMSUNG NEXT LLC (SNX)	PwC	KPMG
SAMSUNG NEXT FUND LLC (SNXF)	PwC	KPMG
Samsung Electronics Home Appliances America, LLC (SEHA)	PwC	KPMG
Samsung Electronics Digital Appliance Mexico, SA de CV (SEDAM)	PwC	KPMG

Samsung Electronics Latinoamerica Miami, Inc. (SEMI)	PwC	KPMG
Samsung Electronics France S.A.S (SEF)	PwC	KPMG
Samsung Electronics Hungarian Private Co. Ltd. (SEH)	PwC	KPMG
Samsung Electronics Czech and Slovak s.r.o. (SECZ)	PwC	KPMG
Samsung Electronics Italia S.P.A. (SEI)	PwC	KPMG
Samsung Electronics Europe Logistics B.V. (SELS)	PwC	KPMG
Samsung Electronics Romania LLC (SEROM)	PwC	KPMG
Samsung Electronics Overseas B.V. (SEO)	PwC	KPMG
Samsung Electronics Polska, SP.Zo.o (SEPOL)	PwC	KPMG
Samsung Electronics Nordic Aktiebolag (SENA)	PwC	KPMG
Samsung Electronics Austria GmbH (SEAG)	PwC	KPMG
Samsung Electronics Switzerland GmbH (SESG)	PwC	KPMG
SAMSUNG ELECTRONICS BALTICS SIA (SEB)	PwC	KPMG
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	PwC	KPMG
Samsung Electronics Poland Manufacturing SP.Zo.o (SEPM)	PwC	KPMG
Samsung Electronics Greece S.M.S.A (SEGR)	PwC	KPMG
Samsung Nanoradio Design Center (SNDC)	PwC	KPMG
Samsung Electronics Air Conditioner Europe B.V. (SEACE)	PwC	KPMG
Samsung Denmark Research Center ApS (SDRC)	PwC	KPMG
Samsung Cambridge Solution Centre Limited (SCSC)	PwC	KPMG
Samsung R&D Institute India-Bangalore Private Limited (SRI-Bangalore)	PwC	KPMG
Samsung Electronics New Zealand Limited (SENZ)	PwC	KPMG
PT Samsung Electronics Indonesia (SEIN)	PwC	KPMG
PT Samsung Telecommunications Indonesia (STIN)	PwC	KPMG
Samsung Display Noida Private Limited (SDN)	PwC	KPMG
Samsung Display Dongguan Co., Ltd. (SDD)	PwC	KPMG
Samsung Display Tianjin Co., Ltd. (SDT)	PwC	KPMG
Samsung Electronics Hong Kong Co., Ltd. (SEHK)	PwC	KPMG
Suzhou Samsung Electronics Co., Ltd. (SSEC)	PwC	KPMG
Samsung Suzhou Electronics Export Co., Ltd. (SSEC-E)	PwC	KPMG
Samsung Mobile R&D Center China-Guangzhou (SRC-Guangzhou)	PwC	KPMG
Samsung R&D Institute China-Shenzhen (SRC-Shenzhen)	PwC	KPMG
Samsung Electronics Suzhou Semiconductor Co., Ltd. (SESS)	PwC	KPMG
SEMES (XIAN) Co., Ltd.	PwC	KPMG
Beijing Samsung Telecom R&D Center (SRC-Beijing)	PwC	KPMG
Samsung Electronics Suzhou Computer Co., Ltd. (SESC)	PwC	KPMG
Samsung Semiconductor (China) R&D Co., Ltd. (SSCR)	PwC	KPMG
Samsung Electronics China R&D Center (SRC-Nanjing)	PwC	KPMG
Samsung (China) Semiconductor Co., Ltd. (SCS)	PwC	KPMG
Samsung SemiConductor Xian Co., Ltd. (SSCX)	PwC	KPMG
Samsung Electronics West Africa Ltd. (SEWA)	PwC	KPMG
Samsung Electronics East Africa Ltd. (SEEA)	PwC	KPMG
Samsung Electronics Israel Ltd. (SEIL)	PwC	KPMG
Samsung Electronics Tunisia S.A.R.L (SETN)	PwC	KPMG
Samsung Electronics Pakistan(Private) Ltd. (SEPAK)	PwC	KPMG
Samsung Electronics South Africa Production (pty) Ltd. (SSAP)	PwC	KPMG
Samsung Semiconductor Israel R&D Center, Ltd. (SIRC)	PwC	KPMG
Samsung Electronics Maghreb Arab (SEMAG)	PwC	KPMG
Samsung Electronics Latinoamerica(Zona Libre), S. A. (SELA)	PwC	KPMG
Samsung Electronica Colombia S.A. (SAMCOL)	PwC	KPMG
Samsung Electronics Chile Limitada (SECH)	PwC	KPMG

Samsung Electronics Peru S.A.C. (SEPR)	PwC	KPMG
Samsung Electronics Ukraine Company LLC (SEUC)	PwC	KPMG
Samsung R&D Institute Ukraine (SRUKR)	PwC	KPMG
Samsung Electronics Central Eurasia LLP (SECE)	PwC	KPMG
Samsung Electronics Iberia, S.A. (SESA)	E&Y	KPMG
Samsung Electronics Benelux B.V. (SEBN)	E&Y	KPMG
Samsung Electronics Portuguesa, Unipessoal, Lda. (SEP)	E&Y	KPMG
Samsung Electronics Philippines Corporation (SEPCO)	E&Y	KPMG
Samsung Electronics Levant Co.,Ltd. (SELV)	E&Y	KPMG
Samsung Electronics Caucasus Co. Ltd (SECC)	E&Y	KPMG
Laos Samsung Electronics Sole Co., Ltd (LSE)	KPP Co., Ltd	KPMG

There are 232 subsidiaries as of December 31, 2022, and Samsung R&D Institute Ukraine (SRUKR) newly appointed PwC, and Samsung Venture Investment Co. No. 52, No. 55, No. 56, and No. 57 appointed Samjong KPMG as external auditors, respectively. Appointment of external auditor is decided at each entity's own discretion.

### 3. Regarding Internal Control

[Management's Evaluation on Internal Control over Financial Reporting (ICFR)]

Fiscal Year	Category	Report Date	Evaluation Conclusion	Significant Deficiency	Improvement Action Plan, etc.
Year ended Dec 31, 2024	Separate	Jan 24, 2025	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
	Consolidated	Jan 24, 2025	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
Year ended Dec 31, 2023	Separate	Jan 29, 2024	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
	Consolidated	Jan 29, 2024	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
Year ended Dec 31, 2022	Separate	Jan 27, 2023	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
	Consolidated	-	-	-	-

[Audit Committee's Evaluation on Internal Control over Financial Reporting (ICFR)]

Fiscal Year	Category	Report Date	Evaluation Conclusion	Significant Deficiency	Improvement Action Plan, etc.
Year ended Dec 31, 2024	Separate	Feb 18, 2025	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
	Consolidated	Feb 18, 2025	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
Year ended Dec 31, 2023	Separate	Jan 31, 2024	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
	Consolidated	Jan 31, 2024	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
Year ended Dec 31, 2022	Separate	Jan 31, 2023	ICFR, in all material respects, is evaluated to be effective in terms of its design and operation.	N/A	N/A
	Consolidated	-	-	-	-

[Audit Opinion of Internal Control over Financial Reporting (ICFR)]

Fiscal Year	Category	Auditor	Audit/Review	Audit/Review Conclusion	Feedback	Company's Countermeasure
Year ended Dec 31, 2024	Separate	Samjong KPMG	Audit	Unqualified	N/A	N/A
	Consolidated	Samjong KPMG	Audit	Unqualified	N/A	N/A
Year ended Dec 31, 2023	Separate	Samjong KPMG	Audit	Unqualified	N/A	N/A
	Consolidated	Samjong KPMG	Audit	Unqualified	N/A	N/A
Year ended Dec 31, 2022	Separate	Deloitte Anjin	Audit	Unqualified	N/A	N/A
	Consolidated	-	-	-	-	-

[Personnel related to managing and operating Internal Control over Financial Reporting (ICFR)]

Organization	Total Headcount	Proportion of KICPA Holders among Personnel related to ICFR			Average Working Period (Month)
		Personnel related to ICFR (A)	KICPA Holders (B)	Ratio(B/A*100)	
Audit Committee	3	3	-	-	35
Board of Directors	9	9	-	-	34
Internal Control Management Director	1	1	-	-	284
Accounting	43	36	5	13.9	150
Treasury	22	20	1	5.0	153
IT	128	29	-	-	277
Disclosure	21	11	-	-	111
HR	95	45	-	-	163
Internal Control Management	18	18	2	11.1	161
Internal Control Audit Support	5	5	2	40.0	145

[Accounting PIC's Career and Education]

Position	Name	Contact	Registered Accounting PIC	Career		Education	
				Total Career (YY.MM)	Accounting Career (YY.MM)	Current (Hours)	Accumulated (Hours)
Internal Control Manager	Sooncheol Park	031-277-7212	0	32.10	23.08	1	1
Accounting Executive	DongWook Kim	031-277-7218	0	31.01	31.01	1	6
Accounting Manager	Hyung-Seok Jeon	031-277-0353	0	20.02	15.09	2	6

# VI Corporate Governance

## 1. Board of Directors

### A. Overview

As of the end of 2024, the Board of Directors consisted of 9 members: 3 Executive Directors (Jong-hee Han, Taemoon Roh, and Jung-bae Lee) and 6 Independent Directors (Han-jo Kim, Jun-sung Kim, Eunyeong Heo, Myung-hee Yoo, Je-yoon Shin and Hye-kyung Cho). The Board appointed Han-jo Kim as Chair as he is the most qualified to manage Board activities, which includes his ability to mediate Director opinions. The roles of Board Chair and CEO were 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.

As of December 31, 2024

Classification	Composition	Members	Head	Role
Board of Directors	3 Executive Directors	Jong-hee Han, Tae-moon Roh, Jung-bae Lee	Han-jo Kim (Independent)	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.
	6 Independent Directors	Han-jo Kim, Jun-sung Kim, Eunyeong Heo, Myung-hee Yoo, Je-yoon Shin, Hye-kyung Cho		
Management Committee	3 Executive Directors	Jong-hee Han, Tae-moon Roh, Jung-bae Lee	Jong-hee Han (Executive)	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, Myung-hee Yoo, Hye-kyung Cho	Han-jo Kim (Independent)	Review and audit matters concerning management of the Company, including the Company's financial situation.
Independent Director Recommendation Committee	3 Independent Director	Je-yoon Shin, Eunyeong Heo, Myung-hee Yoo	Je-yoon Shin (Independent)	Assess the independence, diversity, and ability of potential candidates for Independent Director positions. Recommend candidates.
Related Party Transactions Committee	3 Independent Directors	Eunyeong Heo, Han-jo Kim, Myung-hee Yoo	Eunyeong Heo (Independent)	Voluntarily comply with fair transaction regulations to enhance corporate transparency.
Compensation Committee	3 Independent Directors	Han-jo Kim, Jun-sung Kim, Je-yoon Shin	-	Ensure the objectivity and transparency of the decision-making process for Director compensation.
Sustainability Committee	6 Independent Directors	Han-jo Kim, Jun-sung Kim, Eunyeong Heo, Myung-hee Yoo, Je-yoon Shin, Hye-kyung Cho	Han-jo Kim (Independent)	Promote sustainability management in ESG areas and enhance shareholder value.

For more information on the appointment of each Board member, please refer to [『I. Corporate Overview-2. Company history』](#)

Mar 16, 2022: Independent Director Han-jo Kim was appointed as Board Chair and member of the Compensation Committee, Independent Director Jun-sung Kim as member of the Compensation Committee and Sustainability Committee, and all the Executive Directors as members of the Management Committee at the Board meeting.

April 26, 2022: Independent Director Han-jo Kim was appointed as the Head of the Audit Committee

April 28, 2022: Independent Director Han-jo Kim was appointed as the Head of the Sustainability Committee

Nov 3, 2022: Eunyeong Heo and Myung-hee Yoo were newly appointed as Independent Directors at the EGM and as members of the Sustainability Committee at the Board meeting.

Mar 15, 2023: Executive Director Jong-hee Han was appointed as a member of the Management Committee, and Independent Directors Eunyeong Heo and Myung-hee Yoo were appointed as members of the Independent Director Recommendation Committee at the Board meeting.

April 27, 2023: Executive Director Jong-hee Han was appointed as the Head of the Management Committee

March 20, 2024: Je-yoon Shin was newly appointed as Independent Director, Hye-kyung Cho was newly appointed as Independent Director for Audit Committee member, and Myung-hee Yoo was appointed as a member of the Audit Committee at the AGM. Independent Director Eunyeong Heo and Independent Director Myung-hee Yoo were appointed as members of the Related Party Transaction Committee; Independent Director Je-yoon Shin was appointed as member of the Independent Director Recommendation Committee, Compensation Committee, and Sustainability Committee; and Independent Director Hye-Kyung Cho was appointed as member of the

Sustainability Committee at the Board meeting.

April 26, 2024: Independent Director Eunnyeong Heo was appointed as the Head of the Related Party Transaction Committee.

May 21, 2024: Kye-hyun Kyung resigned from his position of Executive Director.

July 29, 2024: Independent Director Je-Yoon Shin was appointed as the Head of the Independent Director Recommendation Committee.

December 26, 2024: Hark-kyu Park resigned from his position of Executive Director.

After the reporting date, Independent Director Han-jo Kim was appointed as a member of the Independent Director Recommendation Committee at the first Board meeting held on January 31, 2025, and was appointed as the Head of the Compensation Committee on February 14, 2025.

The number of Independent Directors and changes in the number are shown below.

No. of Directors	No. of Independent Directors	Changes of Independent Directors		
		Appointed	Dismissed	Resigned
9	6	2	-	1

## B. Agendas considered and voting results

Date	Agenda	Results	Executive Directors (attendance)					Independent Directors (attendance)							
			Jong-hee Han (100%)	Kye-hyun Kyung (100%)	Tae-moon Roh (100%)	Hark-kyu Park (100%)	Jung-bae Lee (100%)	Han-jo Kim (100%)	Sun-uk Kim (100%)	Jeong Kim (100%)	Jun-sung Kim (100%)	Eunnyeong Heo (100%)	Myung-hee Yoo (100%)	Je-yoon Shin (100%)	Hyekyung Cho (100%)
Jan 31	1. Approval of FY23 financial statements and full-year business report 2. Approval of shareholder return policy for FY24–26 3. Appointment of SCC member 4. Collection of fees for the use of CI mark from Samsung Medison ※ Reported Items ① Report on FY23 internal accounting management system activities ② Report on evaluation of FY23 internal accounting management system activities	Approved  Approved  Approved  Approved	For	For	For	For	For	For	For	For	For	For	For	For	
Feb 20	1. Decision to convene the 55th AMG 2. Decision on the 55th AGM agenda items □ Reported Items ① FY23 annual audit report ② FY23 full-year business report ③ Report on FY23 internal accounting management system activities □ Agenda item 1: Approval of FY23 financial statements, including balance sheet, income statement, and the statement of appropriation of retained earnings, etc. □ Agenda item 2: Election of Je-yoon Shin as Independent Director □ Agenda item 3: Election of Hyekyung Cho as Independent Director for Audit Committee Member □ Agenda item 4: Election of Myung-hee Yoo as Audit	Approved  Approved  Approved  Approved	For	For	For	For	For	For	For	For	For	For	For	N/A (newly appointed)	N/A (newly appointed)

	Committee Member □ Agenda item 5: Approval of Director Remuneration Limit (FY2024) □ Agenda item 6: Approval of Amendments to the Articles of Incorporation 3. Donation to Chung-nam Samsung Institute 4. Approval of 2024 social contribution matching fund 5. Establishment of plans on health and safety for 2024	Approved	For	For	For	For	For	For	For	For	For	For	For	For	
Mar 20	1. Appointment of Board committee members 2. Setting remuneration of Directors 3. Lease agreement for Samsung Electronics Seocho building	Approved	For	For	For	For	For	For	For	For	For	For	For	For	For For
Apr 30	1. Approval of 1Q24 interim business report and quarterly dividend 2. Collection of fees for the use of CI mark from Samsung Biologics and Samsung Bioepis	Approved	For	For	For	For	For	For	For	For	For	For	For	For	For For
Jul 31	1. Approval of 2024 half-year business report and quarterly dividend 2. Charitable contributions 3. Purchase of package insurance policy for domestic operations	Approved	For	N/A (resigned)	For	For For									
Oct 31	1. Approval of 3Q24 interim business report and quarterly dividend 2. Relisting of preferred share depositary receipts (DRS) 3. Payment of annual membership fee to the Federation of Korean Industries 4. Donation to incentive fund for DS Division's suppliers ※ Reported Item: ① Report on the CEO candidate pool	Approved	For		For	For For									
	Approved	For	For		For	For For									
	Approved	For	For		For	For For									
	Approved	For	For		For	For For									
	Approved	For	For		For	For For									
	Approved	For	For		For	For For									
	Approved	For	For		For	For For									
Nov 15	1. Planning for share repurchase program and repurchase of shares 1-1: Share repurchase program 1-2: Repurchase of shares	Approved	For	N/A (resigned)	For	For For									
Nov 26	※ Reported Item: ① Report on 2025 New Leadership Announcement (draft)	-	-		-	-	-	-	-	-	-	-	-	-	-
Nov 29	1. Approval of transaction with affiliate company 2. Payment of retirement pension plan 3. Revision of internal accounting management regulations 4. Approval of business plan for	Approved	For		For	For For									
		Approved	For		For	For For									

	2025 5. Contribution to Community Chest of Korea's annual fundraising campaign for 2025 6. Contribution to UNDP sourced from Samsung Global Goals 7. Subdivision and sale at Gumi Plant 1 site ※ Reported Item: ① Report on compliance control activities	Approved	For		For	For	For	For		For	For	For	For	For
Dec 19	1. Participation in joint research on establishing a comprehensive genetic and clinical database ※ Reported Item: ① Report on 2025 regular organizational restructuring	Approved	For		For	For	For	For		For	For	For	For	For
Dec 31	※ Reported Item: ① Exercise of initial call option for Rainbow Robotics	-	-		-	N/A (resigned)	-	-		-	-	-	-	-

\*Independent Director Jun-sung Kim at the first Board meeting of 2024 voted against the 2024–2026 shareholder return policy, stating that focusing on fixed dividends could reduce flexibility.

\*Independent Director Eunnyeong Heo agreed with the share acquisition plan during the 7th Board Meeting of 2024, but abstained from voting on the item, citing the need to reconsider the appropriate timing.

\*Independent Director Je-yoon Shin started participating in meetings from the 4th meeting, which was held on April 30, 2024, as his term began on March 29, 2024.

## C. Committees

### (1) Composition of Board Committees

[As of December 31, 2024]

Committee	Composition	Members	Responsibilities and authorities	Note
Management	3 Executive Directors	Jong-hee Han (head), Tae-moon Roh, Jung-bae Lee	See below	Appointment of Executive Director Jong-hee Han as the Head (April 27, 2023)
Related Party Transactions	3 Independent Directors	Eun-nyeong Heo (head), Han-jo Kim, Myung-hee Yoo		Appointment of Independent Director Eunnyeong Heo as the Head (April 26, 2024)
Compensation	3 Independent Directors	Han-jo Kim, Jun- sung Kim, Je-yoon Shin		-
Sustainability	6 Independent Directors	Han-jo Kim (head), Jun-sung Kim, Eunnyeong Heo, Myung-hee Yoo, Je-yoon Shin, Hye-kyung Cho		Appointment of Independent Director Han-jo Kim as the Head (April 28, 2022)

The Audit Committee and Independent Director Recommendation Committee was excluded according to Corporate Disclosure Guidelines.

For each committee under the Board of Directors, including the Management Committee, the head is appointed by the committee members.

The Head of the Compensation Committee is scheduled to be appointed at the next Committee meeting.

After the reporting date, Independent Director Han-jo Kim was appointed as the Head of the Compensation Committee on February 14, 2025.

### (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 issues
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 (e.g., 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 no less than KRW 3 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 (e.g., 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 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
3. Other matters that may significantly impact sustainability management and shareholder value that are deemed necessary for the Committee to discuss
4. Establishment, composition, operation of organizations under the committee including research groups, councils, etc.
5. Other matters delegated by the Board

**(2) Committee Activities**

**The Management Committee (2024)**

Date	Agenda	Voting results	Director (attendance)				
			Jong-hee Han (100%)	Kye-hyun Kyung (75%)	Tae-moon Roh (92%)	Hark-kyu Park (100%)	Jung-bae Lee (100%)
Feb 6	1. Lease agreement	Approved	For	For	For	For	For
Mar 7	1. Investment in memory business 2. Investment in foundry business at Pyeongtaek facility 3. Investment in foundry business at the Hwasung facility 4. Investment in Onyang Campus	Approved Approved Approved Approved	For For For For	For For For For	For For For For	For For For For	For For For For
Mar 19	1. Investment in GPU business	Approved	For	For	For	For	For
Apr 12	1. Investment in Memory business 2. Lease agreement with Samsung SDI 3. Purchase of product liability insurance 4. Agreement on trademark use 5. Lease agreement for Samsung Electronics Seocho building	Approved Approved Approved Approved Approved	For For For For For	Absent Absent Absent Absent Absent	For For For For For	For For For For For	For For For For For
May 30	1. Investment in memory business 2. Pyeongtaek fab (memory) 3. Foundation work for the new FAB at Pyeongtak	Approved Approved Approved	For For For	N/A (resigned)	For For For	For For For	For For For

	memory facility 4. Investment in AVP 5. Establishment of overseas subsidiary	Approved Approved	For For		For For	For For	For For
Jun 26	1. Liquidation of an overseas subsidiary	Approved	For		For	For	For
Jul 5	1. Investment in semiconductor research center	Approved	For		For	For	For
Aug 28	1. Investment in Memory Business 2. Investment in Memory Business 3. Investment in Memory Business 4. Lease agreement with Samsung Display	Approved Approved Approved Approved	For For For For		Absent Absent Absent Absent	For For For For	For For For For
Sep 20	1. Investment in Memory Business	Approved	For		For	For	For
Oct 15	1. Investment in Memory Business 2. Investment in Memory Business	Approved Approved	For For		For For	For For	For For
Nov 12	1. Investment in Giheung Campus 2. Investment in Pyeongtaek campus	Approved Approved	For For		For For	For For	For For
Dec 31	1. Exercise of call option	Approved	For		For	N/A (resigned)	For

### The Related Party Transactions Committee (2024)

Date	Agenda	Voting results	Directors (attendance)				
			Sun-uk Kim (100%)	Han-jo Kim (100%)	Jeong Kim (100%)	Eun- nyeong Heo (100%)	Myung-hee Yoo (100%)
Jan 29	1. Prior review on large-scale related party transactions ① Collection of fees for the use of CI mark from Samsung Medison 2. Report on 4Q23 related party transactions	-	-	-	-	-	N/A (newly appointed)
Mar 18	1. Prior review on large-scale related party transactions ① Lease agreement for Samsung Electronics Seocho building	-	-	-	-	-	
Apr 26	1. Appointment of the Head of the Related Party Transactions Committee 2. Prior review on large-scale related party transactions ① Agreement for the use of CI mark with Samsung Biologics and Samsung Bioepis 3. Report on 1Q24 related party transactions	Approved	N/A (resigned)	For	N/A (term expired)	For	For
Jul 29	1. Prior review on large-scale related party transactions ① Charitable contributions ② Purchase of package insurance policy for domestic operations 2. Report on 2Q24 related party transactions	-		-		-	-
Oct 29	1. Report on 3Q24 related party transactions	-		-		-	-
Nov 27	1. Prior review on large-scale related party transactions ① Payment of retirement pension plan ② Subdivision and sale at Gumi Plant 1 site ③ Approval of 2025 large-scale product and service transactions	-					

### The Compensation Committee (2024)

Date	Agenda	Voting results	Directors (attendance)			
			Jeong Kim (100%)	Han-jo Kim (100%)	Jun-sung Kim (100%)	Je-yoon Shin (100%)

Feb 19	1. Review on 2024 fixed annual salary for each Executive Director 2. Review on 2024 remuneration limit for Directors	Approved Approved	For For	For For	For For	N/A (newly appointed)
--------	---	----------------------	------------	------------	------------	--------------------------

## The Sustainability Committee (2024)

Date	Agenda	Voting results	Directors (attendance)							
			Han-jo Kim (100%)	Sun-uk Kim (100%)	Jeong Kim (100%)	Jun-sung Kim (100%)	Eunnyeong Heo (100%)	Myung-hee Yoo (100%)	Je-yoon Shin (100%)	Hye-kyung Cho (100%)
Jan 29	① Measures to elevate ESG stakeholder engagement ② Plans to release Sustainability Report 2024 ③ Report on updates of IR activities ④ Preliminary review on 2024–2026 shareholder return policy	- - - Approved	- - - For	- - - For	- - - Against	- - - For	- - - For	- - - N/A (newly appointed)	- - - N/A (newly appointed)	
Apr 26	① Report on updates of IR ② Results of 2024 Materiality Assessment ③ Results of EU stakeholder engagement ④ Plans to expand Stellar Forest, Samsung Electronics' standard workplace for people with disabilities in the form of a subsidiary	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	
Jul 29	① Updates of IR activities ② Response strategy for EU's Corporate Sustainability Reporting Directive ③ Progress of response to EU supply chain due diligence directive ④ Current status of occupational safety and health management	- - - -	- - - -	N/A (resigned)	N/A (term expired)	- - - -	- - - -	- - - -	- - - -	
Oct 29	① Updates of IR activities ② Relisting of preferred share depositary receipts (DRs) ③ Progress of New Environmental Strategy ④ Key issues in occupational safety and health	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	- - - -	

## 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 must meet the requirements of relevant laws and the Articles of Incorporation. Executive Directors are recommended at a Board meeting based on their expertise and leadership from among a list of candidates that is continually updated. Independent Directors candidates are recommended by the Independent Director Recommendation Committee, and the Board reviews and finalizes the choices as agenda items at an AGM. Independent Directors should have no material interests with the Company and its major shareholder; possess knowledge and experience in areas such as finance, law, IT (robotics, AI), ESG, investment, environment, energy, international trade, and risk management; and be able to fulfill the roles and responsibilities of supervising management from an independent perspective.

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 December 31, 2024]

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 2026 (1)	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. As the Head of the DX Division, he will contribute to further solidifying leadership amid intensifying competition by using his outstanding business capabilities.	The Board	Overall management of the DX Division	N/A	Related party
Executive Director	Tae-moon Roh	Mar 2022–Mar 2025 (N/A)	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	Jung-bae Lee	Mar 2022–Mar 2025 (N/A)	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	Jun-sung Kim	Mar 2022–Mar 2025 (N/A)	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
Independent Director	Eunnyeong Heo	Nov 2022–Nov 2025 (N/A)	Director Eunnyeong Heo is an expert in energy, resources, and the environment and, in particular, how they relate to economy and policy. As a renowned international scholar, he will contribute to strengthening the Company's management in the relevant fields and provide practical advice to the Board.	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	Myung-hee Yoo	Nov 2022–Nov 2025 (N/A)	Director Myung-hee Yoo is an expert in international trade who served as Trade Minister. By leveraging her diplomatic communication skills and global human network, she will effectively manage and maintain close communication with major investors and stakeholders.	Independent Director Recommendation Committee	Overall management	N/A	N/A
Independent Director	Je-yoon Shin	Mar 2024–Mar 2027 (N/A)	Director Je-yoon Shin is an expert in finance who served as the Chairman of the Financial Services Commission. Samsung believes Director Shin will contribute in multiple areas, including the Company's financial management and global strategies based on his expertise.	Independent Director Recommendation Committee	Overall management	N/A	N/A
Independent Director	Hye-kyung Cho	Mar 2024–Mar 2027–(N/A)	Director Hye-kyung Cho is an expert in robotics and related software who served as the 19th President of the Korea Robotics Society and has spearheaded promotion of robotics-related education in Korea. Samsung believes Director Cho will support the Company by providing relevant advice on the related businesses.	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.

## (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 (December 31, 2024), The Committee currently consists of 3 Independent Directors (Je-yoon Shin, Eunnyeong Heo, and Myung-hee Yoo), meeting the requirement of having Independent Directors comprise the majority of Committee members, as stipulated in Article 542-8, Paragraph 4 of the Commercial Act. After the reporting date, Independent Director Han-jo Kim was appointed as a member of the Independent Director Recommendation Committee at the first Board meeting of 2025.

The Independent Director Recommendation Committee conducts a thorough evaluation for the candidates (including those recommended by Independent Directors and external organizations) of factors including Board composition, the professional background of the outgoing Independent Director, and committee engagements within the Board. Based on this assessment, the committee selects the ultimate candidate to be recommended as a member of the Independent Director.

Date	Agenda	Voting results	Directors (attendance)			
			Sun-uk Kim (100%)	Eunnyeong Heo(100%)	Myung-hee Yoo(100%)	Je-yoon Shin (100%)
Jan 29	① Appointment of the Head of the Independent Director Recommendation Committee ② Deciding on the date for recommending Independent Directors	Approved Approved	For For	For For	For For	N/A (newly appointed)

Feb 19	① Recommending a candidate as an Independent Director for Audit Committee ② Recommending candidates for Independent Directors	Approved Approved	For For	For For	For For	
Jul 29	① Appointment of the Head of the Independent Director Recommendation Committee ② Reporting on the selection progress of Independent Director candidates	Approved -	N/A (Resigned)	For -	For -	For -

### (3) Expertise of Independent Directors

#### 1) Support team for Independent Directors

As of December 31, 2024

Team	No. of employees	Position (total years served/ years in support team)	Key activities
Board of Directors Office	4	Corporate EVP: 1 person (19 years and 11 months / 2 year 1 month) Principal Professional: 2 person (18 years and 1 months / 3 year and 4 months) Professional: 1 person (7 years and 11 months / 1 year and 10 months)	<ul style="list-style-type: none"> <li>Support operation of annual shareholders' meeting, Board meetings, and Committee meetings</li> <li>Support education for Independent Directors and their activities</li> <li>Establish database on Director candidates</li> <li>Provide information regarding the agenda to each Director</li> <li>Administrative work for meetings</li> <li>Record meeting agendas for the Board and committee meetings</li> </ul>

#### 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 Business	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
Jul 28, 2022	Memory Business	Han-jo Kim Sun-uk Kim Jeong Kim Jun-sung Kim	N/A	On-site visit to check the current management status of businesses
Aug, 2022	SEUK, SRUK, SEF, SENA, SEH	Han-jo Kim Sun-uk Kim Jeong Kim	COVID-19 (Jun-sung Kim)	Report on current management status and inquiries on key issues Visits to TV production lines and business sites, etc.
Nov 30, 2022	Foundry Business	Han-jo Kim Sun-uk Kim Jeong Kim, Jun-sung Kim Eunyeong Heo Myung-hee Yoo	N/A	On-site visit to check the current management status of businesses

Date	Organizer	Participants	Reasons for absence	Education contents
Jan 31, 2023	Samsung Research, Design Management Center	Han-jo Kim Sun-uk Kim Jeong Kim Jun-sung Kim Eunyeong Heo Myung-hee Yoo	N/A	On-site visit to check the current status of business organizations
Apr 27, 2023	Digital Appliances Business Unit	Han-jo Kim Sun-uk Kim Jeong Kim Eunyeong Heo Myung-hee Yoo	Concurrent Business (Jun-sung Kim)	On-site visit(Gwangju) to check the current management status of businesses
Jul 27, 2023	S.LSI Business	Han-jo Kim Sun-uk Kim Jeong Kim Jun-sung Kim Eunyeong Heo Myung-hee Yoo	N/A	Report on current management status of businesses and medium- to-long term business strategies, etc.
Aug, 2023	SEDA, SECH, SELA, SEM	Han-jo Kim Sun-uk Kim Jeong Kim Eunyeong Heo Myung-hee Yoo	Concurrent Business (Jun-sung Kim)	Report on current management status, inquiries on key issues, and assessments of internal control activities Visits to production lines and marketing sites, and meetings with employees
Oct 31, 2023	VD Business	Han-jo Kim Sun-uk Kim Jeong Kim Eunyeong Heo Myung-hee Yoo	Concurrent Business (Jun-sung Kim)	Report on current management status of businesses and business strategies, etc.
Jan 31, 2024	MX Business	Han-jo Kim Sun-uk Kim Jeong Kim Jun-sung Kim Eunyeong Heo Myung-hee Yoo	N/A	Status on future preparedness for Business Units, presentation on our strategic products, etc.
Apr 30, 2024	Memory Business	Han-jo Kim Jun-sung Kim Eunyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	N/A	Management status of Business Units and on-site visit to pyeongtaek site
May, 2024	Human Resources Development Center	Han-jo Kim Eunyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	Concurrent Business (Jun-sung Kim)	Visits to Daegu Samsung Creative Campus and Samsung Yeongdeok Training Center
Jul 29, 2024	Korea Sales & Marketing	Han-jo Kim Jun-sung Kim Eunyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	N/A	Introducing domestic sales organization and visiting the Samsung Store

Date	Organizer	Participants	Reasons for absence	Education contents
Jul 31, 2024	Samsung Research, Design management center	Han-jo Kim Jun-sung Kim Eunyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	N/A	Briefing on R&D and design status of the DX Division and meeting with CTO
Aug 2024	SESP, SEHC, SEVT, SRV, SEAU, TSE	Han-jo Kim Jun-sung Kim Eunyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	N/A	Business performance report and Q&As on key issues, and evaluation on internal control activities Visiting production lines and marketing sites, and meeting with executives and employees
Oct 31, 2024	SDC	Han-jo Kim Jun-sung Kim Eunyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	N/A	Briefing on the management status of subsidiaries and on-site visit to the Giheung campus
Nov 29, 2024	MX Business	Han-jo Kim Jun-sung Kim Eunyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	N/A	Briefing on the management status of the MX business and introducing the latest strategic products

We provide educational materials to Independent Directors if their current occupation makes it difficult for them to participate in on-site programs prepared by the Company such as visits to Business Units or subsidiaries and training sessions.

## 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
Nov 28, 2022	Corporate Management Office	Eunyeong Heo Myung-hee Yoo	N/A	Key issues regarding Board activities and management
Mar 20, 2024	Corporate Management Office	Je-yoon Shin Hye-kyung Cho	N/A	Key issues regarding Board activities and management
Apr 26, 2024	Human Resources Development Center	Je-yoon Shin Hye-kyung Cho	N/A	History of Samsung and management philosophy

New Independent Directors are subject to the orientation.

## ③ Orientation for Independent Directors

Date	Organizer	Participants	Reasons for absence	Education contents
Mar 15, 2023	Samsung Human Resources Development Center	Han-jo Kim Sun-uk Kim Jeong Kim Jun-sung Kim	N/A	Key issues regarding management, including the company history and management philosophy

Date	Organizer	Participants	Reasons for absence	Education contents
		Eunnyeong Heo Myung-hee Yoo		
Apr 25, 2023	Global Marketing Division Global EHS Center	Han-jo Kim Sun-uk Kim Jeong Kim Eunnyeong Heo Myung-hee Yoo	Concurrent Business (Jun-sung Kim)	Understanding marketing activities Understanding EHS management status and environment management
Oct 27, 2023	CSR Software academy for youth Creative Development Center	Han-jo Kim Sun-uk Kim Jeong Kim Eunnyeong Heo Myung-hee Yoo	Concurrent Business (Jun-sung Kim)	Understanding CSR activities including Samsung Stepping Stone of Hope Introduce SSAFY program Introduce C-Lab and its activities
May 23, 2024	Corporate Management Office	Han-jo Kim Jun-sung Kim Eun- nyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	N/A	Conducting Workshop for Board of Directors and discussing current key issues
Jul 29, 2024	DS Division Global Infrastructure	Han-jo Kim Jun-sung Kim Eunnyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	N/A	Understanding semiconductor FAB infrastructure
Oct 31, 2024	Corporate Management Office	Han-jo Kim Jun-sung Kim Eunnyeong Heo Myung-hee Yoo Je-yoon Shin Hye-kyung Cho	N/A	Briefing on business strategies for robotics and medtech

## 2. Audit System

### A. Profiles of Audit Committee members

As of December 31, 2024, 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 <sup>1)</sup>	
		Classification	Relevant experience
Han-jo Kim	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 <sup>2)</sup>	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

<b>Myung-hee Yoo</b> 2022–present: Visiting Professor, Graduate School of International Studies, Seoul National University 2021–2022: Ambassador for Economy and Trade, Ministry of Foreign Affairs (MOFA) 2019–2021: Trade Minister, Ministry of Trade, Industry and Energy (MOTIE) 2018–2019: Director General for FTA Policy, Office of FTA Negotiations, MOTIE 2017–2018: Director General, Bureau of Trade Policy, Office of FTA Negotiations, MOTIE 2015–2017: Director General, FTA Negotiations & East Asia FTA Bureau, MOTIE 2014–2015: Spokesperson for Foreign Media, Office of Public Relations, Office of the President	– –
<b>Hye-kyung Cho</b> 2023–present: Full member of National Academy of Engineering of Korea 2022–2022: President of Korea Robotics Society 2021–2022: Member of Mechanical Material Advisory Committee at Presidential Advisory Council on Science & Technology 2020–2021: Vice President of Institute of Control, Robotics and Systems 2014–2017: Director of the Korean Institute of Electrical Engineers 2012–2015: Director of the Korea Institute for Robot Industry Advancement (Board Chair) 1996–present: Professor in Applied AI at Hansung University	– –

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

## 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.

Audit Committee members are approved at general meeting of shareholders following recommendations by the Board of Directors and the Independent Director Recommendation Committee. The Audit Committee is composed of financial expert Director Han-jo Kim as well as Directors Myung-hee Yoo, a U.S.-licensed attorney, and Hye-kyung Cho, who have audit committee experience at other listed companies. The Audit Committee members have no relationship with the Company, its largest shareholder, or major shareholders that could undermine the independence of the Audit Committee. In addition, the Audit Committee meets all requirements set forth by relevant laws, such as being headed 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,
The ratio of independent directors shall exceed two thirds of the total number of members.	Satisfied: all members are independent directors	Article 2 of the Company's Audit Committee Regulation
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,

The representative of the committee shall be an Independent Director.	Satisfied: Independent Director Han-jo Kim	Article 3 of the Company's Audit Committee Regulation
Other conditions (related party of the major shareholder, etc.)	Satisfied (n/a)	Article 542-11 (3) of the Commercial Act

As of December 31, 2024

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.	Board of Directors	N/A	N/A	-
Myung-hee Yoo	Mar 2024–Nov 2025 (newly appointed)	Ms. Yoo is a distinguished global trade expert who has previously served as Trade Minister at the Ministry of Trade, Industry and Energy. Based on her diplomatic communication experience and global human networks, she will carry out her duties as an Audit committee member from independent and objective perspectives.	Board of Directors	N/A	N/A	-
Hye-kyung Cho	Mar 2024–Mar 2027 (newly appointed)	As an engineering expert who has served as a professor in Applied AI and as the President of the Korea Robotics Society, Ms. Cho is widely recognized both domestically and internationally. Based on her high level of expertise, she will fulfill her duties as an Audit Committee member with rigor and fairness, responding to stakeholder inquiries on diversity and ESG management.	Independent Director Recommendation Committee	N/A	N/A	-

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 (2024)

Date	Agenda	Voting results	Directors (attendance)				
			Han-jo Kim (100%)	Sun-uk Kim (100%)	Jeong Kim (100%)	Myung-hee Yoo (100%)	Hye-kyung Cho (100%)

Jan 29	1. Report on 2023 internal accounting management system activities 2. Report on evaluation of 2023 internal accounting management system activities 3. Communication between external auditor and audit committee 4. Report on 2023 financial statement and business report 5. Report on 4Q23 non-audit activities 6. Report on 4Q23 external contributions 7. Report on 2023 audit activities	-	-	-	-	N/A (newly appointed)	N/A (newly appointed)
Feb 19	1. Review of the 55th AGM agenda 2. Report on activities of internal compliance system in 2023	-	-	-	-		
Apr 26	1. Communication between external auditor and audit committee 2. Report on 2023 audit activities 3. Report on 1Q24 interim business report 4. Report on 1Q24 non-audit activities 5. Reviewing and confirming terms/conditions of the audit with external auditor 6. Report on plans for reviewing 2024 internal accounting management system activities 7. Report on 1Q24 external contributions 8. Report on plans for evaluating 2024 internal accounting management system activities	-	-	Approved	For	For	For
Jul 29	1. Communication between external auditor and audit committee 2. Report on 2024 half-year business report 3. Report on 2Q24 non-audit activities (*) 4. Interim report on 2024 internal accounting management system activities 5. Report on 2Q24 external contributions 6. Report on 1H24 audit activities	-	-				
Aug 5	1. Report on operational status of 2024 internal accounting management system for Southeast Asia regional office 2. Report on operation of misconduct reporting channels and compliance audit status for Southeast Asia regional office	-	-				
Oct 25	1. Communication between external auditor and audit committee 2. Interim report on evaluation of 2024 internal accounting management system activities	-	-				
Oct 29	1. Report on 3Q24 interim business report 2. Report on 3Q24 non-audit activities (*) 3. Report on 3Q24 external contributions	-	-				
Nov 27	1. Communication between external auditor and audit committee 2. Revision of internal accounting management regulations	-	Approved	For		For	For

※ The external auditor reported that it did not perform non-audit services subject to approval by the Audit Committee, which was confirmed by the Audit Committee. Audit Committee made final confirmation through internal discussion that non-audit services subject to the Committee's approval had not been performed.

## 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 27, 2021	External experts	Jae-wan Bahk Sun-uk Kim Han-jo Kim	N/A	Introducing consolidated Internal Control over Financial Reporting (ICFR)
May 25, 2022	Corporate Finance & Accounting Team, External experts	Jeong Kim	N/A	Purpose of internal accounting control system and roles of Audit Committee
Jul 26, 2022	External experts	Han-jo Kim Sun-uk Kim Jeong Kim	N/A	Best practices from abroad in organizational operations of internal accounting control system
Oct 27, 2023	External experts	Han-jo Kim Sun-uk Kim Jeong Kim	N/A	Measures for advancement of internal accounting control system using generative AI, etc.
Apr 23, 2024	External experts, Audit team Internal accounting assessment support group	Myung-hee Yoo Hye-kyung Cho	N/A	Basic overview of the Audit Committee and roles/responsibilities of Committee members
May 21, 2024	External experts	Hye-kyung Cho	N/A	Corporate governance the Audit Committee's system, operation, and action plans.
Jul 4, 2024	External experts	Myung-hee Yoo Hye-kyung Cho	N/A	IT control and digital audit, compliance oversight, and roles of the Audit Committee
Jul 8, 2024	Internal accounting assessment support group	Myung-hee Yoo Hye-kyung Cho	N/A	Key audit matters
Nov 20, 2024	External experts	Han-jo Kim Myung-hee Yoo Hye-kyung Cho	N/A	Internal Control over Financial Reporting (ICFR)

## F. Support team for the Audit Committee

As of December 31, 2024

Team	Composition	Service years on team	Major tasks
Audit team	1 Executive Vice President, 1 Principal Professional, 1 Senior Professionals	Executive Vice President: 1 month Principal professional: 7 years Senior Professional: 3 years	Support the Audit Committee
Internal accounting assessment support group	1 Executive Vice President, 1 Lawyer, 1 Principle Professional, 2 Senior Professional	Executive Vice President: 6 years Lawyer: 3 years and 9 months Principle Professional: 1 year and 7 month Senior Professional: 11 months	Support assessment of the internal accounting management system

Service years are based on the period in charge of the assigned duty.

## G. Compliance Officer

As of December 31, 2024

<b>Personal information and major career</b>	<b>Name</b>	Jung-ho Park
	<b>Date of birth</b>	September 1971
	<b>Sex</b>	Male
	<b>Current position</b>	Corporate Compliance Team leader at Samsung Electronics (December 2022–present)
	<b>Career</b>	May 2004: HR Team, Corporate Management Office, SEC (lawyer) Dec 2014: Corporate Legal Team, Corporate Legal Office, SEC (Vice President) Mar 2018: Legal & Compliance Team, DS Division, SEC (Vice President) Jan 2020: Compliance Team, SEC (Vice President) Dec 2022: Head of Compliance Team, SEC (Executive Vice President)
	<b>Academic background</b>	Bachelor's Degree in Law (Seoul National University) Master's Degree in Human Resources & Labor Relations (Michigan State University)
<b>2. Date of Board resolution</b>		December 20, 2022
<b>3. Disqualifications</b>		N/A
<b>4. Others</b>		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
Mar 2024	Compliance of patent application process Compliance of domestic and overseas third-party production customers	Technology misuse, trade secrets, etc. Technology leak, product liability, etc.	
Apr 2024	Compliance of online sales sites	Consumer protection, dark patterns	
May 2024	Compliance of domestic organizations involved with trade	Fair transaction, trade secrets, etc.	
Jun 2024	Voluntary compliance of overseas subsidiaries Compliance of domestic organizations involved with development Compliance of overseas sales subsidiaries Compliance of online sales sites Compliance of domestic and overseas third-party production customers	Status of compliance program Trade secrets  Fair transaction, trade secrets, etc. Consumer protection, greenwashing Technology leak, product liability, etc.	Overall result was satisfactory. Internal policies were followed in areas where there was room for improvement.
Jul 2024	Compliance of patent application process Compliance of overseas production subsidiaries	Technology misuse, trade secrets, etc. Technology misuse, Anti-corruption, etc.	
Sep 2024	Compliance of domestic organizations involved with trade Compliance of external technology sourcing Compliance of domestic and overseas third-party production customers	Fair transaction, trade secrets, etc. Trade secrets, technology misuse Technology leak, product liability, etc.	
Oct 2024	Compliance of domestic organizations involved with trade Compliance of online sales sites	Fair transaction Consumer protection, greenwashing	
Nov 2024	Monitoring of external contributions risks	Anti-corruption, fair transaction	
Dec 2024	Compliance of subsidiaries Compliance of domestic and overseas third-party production customers	Trade secrets, personal information, etc. 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 December 31, 2024

Team	Composition	Service years (average)	Major tasks
Compliance team, etc.	Vice president (1) Principal Professionals (20) Lawyers (10) Senior Professionals (25) Professionals (4) Total: 60	Vice president (1 month) Principal Professionals (9 years 5 months) Lawyers (5 years and 6 months) Senior Professionals (6 years and 3 months) Professionals (2 year and 1 months)	Supports activities of the Compliance Officer

Service years are based on the period in charge of the assigned duty

### **3. General meeting of shareholders**

#### **A. Voting method**

As of December 31, 2024, the Company has not adopted cumulative voting or paper voting and has adopted electronic voting, which was used at the AGM on March 20, 2024.

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 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 December 31, 2024

Classification	Cumulative voting	Paper voting	Electronic voting
Adoption	Excluded	Not adopted	Adopted
Implementation	-	-	AGM (2023)

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. Minority shareholder rights**

No minority shareholder rights were exercised during the reporting period.

#### **C. Competition over management rights**

No competition over management rights occurred during the reporting period.

## D. Voting shares

As of December 31, 2024, 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 603,783,175 shares of common stock with limited voting rights under relevant laws. Thus, the total number of shares with full voting rights is 5,336,299,375.

As of December 31, 2024

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	29,700,000	Treasury shares
	Preferred	-	-
Shares with no voting rights according to Articles of Incorporation (C)	Common	-	-
	Preferred	822,886,700	Including 4,050,000 shares of preferred stock held as treasury shares
Shares with limited voting rights under relevant laws (D)	Common	603,325,350	Restricted by the Monopoly Regulation and Fair Trade Act: 508,157,148 shares held by Samsung Life Insurance & 88,802,052 shares held by Samsung Fire & Marine Insurance 4,484,150 shares held by Samsung Welfare Foundation 1,880,750 shares held by Samsung Foundation of Culture 1,250 shares held by Samsung Life Public Welfare Foundation
	Common	457,825	Restricted by the Insurance Business Act: Shares held by Samsung Life Insurance in certain special accounts
Shares with voting rights (E = A - B - C - D)	Common	5,336,299,375	-
	Preferred	-	-

Pursuant to Korea's Monopoly Regulation and Fair Trade Act, owners can exercise certain rights on some shares (603,325,350) 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.

## **E. Stock affairs**

### **Preemptive rights in the Articles of Incorporation**

1. New shares to be issued by the Company shall be allocated to the shareholders in proportion to their respective shareholdings in accordance with Paragraph 6, Article 8. If shares are not subscribed for as a result of waiver or loss of the preemptive right of the shareholders to subscribe for new shares, or if fractional shares remain at the time of allocation of new shares, such shares may be disposed of by a resolution of the Board of Directors in accordance with applicable laws and regulations.
2. Notwithstanding the above Paragraph 1, new shares may be allocated to persons other than shareholders in the following cases:
  - a. If the Company issues new shares or causes underwriters to underwrite new shares by a resolution of the Board of Directors in accordance with applicable laws and regulations including the Financial Investment Services and Capital Markets Act;
  - b. If the Company allocates new shares preferentially to members of the Employee Stock Ownership Association by a resolution of the Board of Directors in accordance with applicable laws and regulations including the Financial Investment Services and Capital Markets Act;
  - c. If the Company issues new shares for the issuance of depositary receipts (DR) by a resolution of the Board of Directors in accordance with the applicable laws and regulations including the Financial Investment Services and Capital Markets Act;
  - d. If the Company issues new shares by public offering in accordance with Article 11-3;
  - e. If new shares are issued by the exercise of stock options in accordance with Article 11-4;
  - f. If the Company issues new shares to the extent of 20% of the total issued and outstanding shares to domestic or foreign financial institutions for the purpose of obtaining financing urgently or to the relevant partner company for the purpose of inducing technology therefrom, etc., by a resolution of the Board of Directors; provided that the issue price of the new shares shall not be less than the price prescribed by the Financial Investment Services and Capital Markets Act and other applicable laws and regulations.

 (Note) Paragraph 6, Article 8

In the case of rights issue, bonus issue or stock dividend, the holders of common shares shall be entitled to common shares, and the holders of preferred shares shall be entitled to preferred shares, in proportion to their respective shareholdings; provided that in the case of rights issue and stock dividend the Company may, if necessary, issue only one kind of shares, where all the shareholders shall be entitled to such kind of shares to be issued.

 (Note) Article 11-3 (Public Offering)

1. The Company may issue new shares by public offering to the extent that the new shares do not exceed 20% of the total number of issued and outstanding shares by a resolution of the Board of Directors, pursuant to Article 165-6, Paragraph 1, Item 3 of the Financial Investment Services and Capital Markets Act.
2. If the Company issues new shares by public offering, the type, quantity and issue price of the shares to be newly issued shall be determined by a resolution of the Board of Directors; provided that the issue price of such new shares shall not be less than the price prescribed by the Financial Investment Services and Capital Markets Act and other applicable laws and regulations.

 (Note) Article 11-4 (Stock Options)

1. The Company may grant stock options to its officers and employees (including officers and employees of the related companies as set forth in Article 542-3, Paragraph 1 of the Commercial Code; the same shall apply for the purpose of this Article) by a special resolution of the general meeting of shareholders pursuant to Article 542-3 of the Commercial Code, to the extent permitted by the Commercial Code; provided, however, that the Company may grant the stock options to its officers and employees (except for the directors of the Company) by a resolution of the Board of Directors to the extent determined by the relevant laws and regulations.
2. The person to whom stock options may be granted are the officers and employees who have contributed or have the capacity to contribute to the establishment, management, overseas business, technical innovation, etc. of the Company; provided, however, that the officers and employees who may not be entitled to stock options under the relevant laws and regulations shall be excluded.
3. The shares to be issued to the officers or employees by the exercise of their stock options (in case the Company pays, either in cash or treasury shares, the difference between the exercise price of stock options and the market price, they refer to the shares which are the basis for such calculation) shall be common shares in registered form or preferred shares in registered form.
4. Total number of shares to be delivered in accordance with the exercise of stock options shall be up to the extent permitted by the relevant laws and regulations.
5. The stock options may be exercised until an expiry date determined by a resolution of the general meeting of shareholders or the Board of Directors and such expiry date shall be determined within a period not exceeding eight (8) years from the date when two (2) years have elapsed from the date of the general meeting of shareholders or the date of the Board of Directors' meeting at which a resolution to grant such stock options is adopted; provided, however, that the person to whom a stock option is granted should serve the Company for at least two (2) years after the date of such resolution in order to exercise such stock option, unless otherwise set forth by relevant laws and regulations.
6. The terms and conditions for stock options, such as the contents and exercise price thereof shall be determined by a special resolution of the

general meeting of shareholders or by a resolution of the Board of Directors in accordance with the relevant laws and regulations and the Articles of Incorporation; provided, however, that such matters which are not provided for as matters reserved for resolutions of the general meeting of shareholders or the Board of Directors' meeting under the relevant laws and regulations or the Articles of Incorporation may be determined by the Board of Directors or a committee authorized by the Board of Directors.

7. The Company may cancel the grant of stock options by a resolution of the Board of Directors in any of the following cases:
- In case the relevant officer or employee voluntarily retires from his/her office or leaves the Company after the grant of stock options;
  - In case the relevant officer or employee causes substantial damages to the Company due to his/her willful misconduct or negligence;
  - In case any of the causes for cancellation set forth in the stock option agreement occurs.

Settlement date	Dec 31	Annual General Meetings of Shareholders	Within 3 months after the end of every business year
Record date (closing period)		Last day of fiscal year (One month from Jan 1)	
Transfer agent	Korea Securities Depository (T: +82-51-519-1500): 40 Munhyeongeumyung-ro, Nam-gu, Busan, Korea		
Shareholder benefit	n/a	Published on	Joongang Daily

With Act on Electronic Registration of Stocks, Bonds, etc. ("Electronic Securities Act") taking effect Sep 16, 2019, rights specified on stocks and subscription warrants are subject to mandatory electronic registration, therefore, "Stock types" are no longer applicable.

Related information is published on Joongang Daily in pursuant to our Articles of Incorporation, as well as on our website (<https://www.samsung.com/sec/ir>).

## F. Results of shareholder meetings

As of December 31, 2024

Date	Agenda	Results
AGM (Mar 20, 2024)	1 Approval of audited financial statements for FY2023, including Statements of Financial Position, Statements of Profit or Loss, Statements of Appropriation of Retained Earnings 2 Election of Je-Yoon Shin as Independent Director 3 Election of Hye-Kyung Cho as Independent Director for Audit Committee Member 4 Election of Myung-Hee Yoo as Audit Committee Member 5 Approval of Director Remuneration Limit (FY2024) 6 Approval of Amendments to the Articles of Incorporation	Approved Approved Approved Approved Approved Approved
AGM (Mar 15, 2023)	1 Approval of FY22 financial statements, including balance sheet, income statement, and the statement of appropriation of retained earnings, etc. 2 Appointment of Jong-hee Han as Executive Director 3 Approval of remuneration limit for Directors	Approved Approved Approved
EGM (Nov 3, 2022)	1 Appointment of Independent Directors 1-1 Appointment of Eunnyeong Heo as an Independent Director 1-2 Appointment of Myung-hee Yoo as an Independent Director	Approved Approved
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 Approved Approved

## VII Information on Shareholders

### 1. Ownership of shares by the major shareholder(s) and related parties

As of December 31, 2024

Name	Relationship	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	8,097,938	0.14	5,378,652	0.09	Open market transactions	
		Preferred	417,085	0.06	329,788	0.04	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	-	
Samsung Life Public Welfare Foundation	Funded foundation	Common	0	0.00	1,250	0.00	Donations from individuals unrelated to the Company	
Ra-hee Hong	Related party of the major shareholder	Common	117,302,806	1.96	97,978,700	1.64	Extended hours trading	
		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	47,745,681	0.80	Extended hours trading	
		Preferred	137,755	0.02	137,755	0.02	-	
Seo-hyun Lee	Executive member of affiliate	Common	55,394,044	0.93	47,290,190	0.79	Extended hours trading	
		Preferred	137,755	0.02	137,755	0.02	-	
Jong-hee Han	Executive member of affiliate	Common	15,000	0.00	25,000	0.00	Open market transactions	
Kye-hyun Kyung	Executive member of affiliate	Common	21,050	0.00	0	0.00	Resigned	
Tae-moon Roh	Executive member of affiliate	Common	13,000	0.00	28,000	0.00	Open market transactions	
Hark-kyu Park	Executive member of affiliate	Common	22,500	0.00	0	0.00	Resigned	
Jung-bae Lee	Executive member of affiliate	Common	15,000	0.00	21,800	0.00	Open market transactions	
Han-jo Kim	Executive member of affiliate	Common	3,655	0.00	6,985	0.00	Open market transactions	

Name	Relationship	Type of share	Ownership				Notes	
			Period start		Period end			
			Shares	Stake (%)	Shares	Stake (%)		
Hye-Kyung Cho	Executive member of affiliate	Common	0	0.00	500	0.00	Newly appointed	
Total		Common	1,235,835,433	20.70	1,198,033,154	20.07	-	
		Preferred	1,080,935	0.13	993,638	0.12	-	

Relationship in accordance with Article 3 Paragraph 1 of Enforcement Decree of the Act on Corporate Governance of Financial Companies.

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 December 31, 2024, please refer to 'Ownership status of securities, etc. of executives and major shareholder' published in Korean in DART (<https://dart.fss.or.kr>).

## 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	64,322	Won-hak Hong	0.00	Samsung C&T	19.34

As of December 31, 2024, based on common shares.

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 21, 2024	Won-hak Hong	0.00	-	-

Mar 21, 2024: Young-muk Jeon resigned from his position as CEO, and Executive Director Won-hak Hong was appointed as CEO

(2) Financial status of the recent settlement term of the major shareholder (Samsung Life Insurance)

Classification	
Name of the corporation or organization	Samsung Life Insurance Co., Ltd
Total assets	312,218,844
Total liabilities	279,480,913
Total equity	32,737,931
Revenue	33,786,029
Operating profit	2,499,751
Net profit	2,260,255

The financial status is as of December 31, 2024, 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 (<https://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	114,158	Se-chul Oh	0.00	Jae-yong Lee	19.06
		Hai-lin Jeong	0.00		
		Jae-eon Lee	0.00		

As of December 31, 2024, 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 17, 2023	Seung-hwan Han	-	-	-
Mar 17, 2023	Hai-lin Jeong	0.00	-	-
Apr 21, 2023	-	-	Jae-yong Lee	18.26
Mar 15, 2024	Jung-suk Koh	-	-	-
Mar 15, 2024	Jae-eon Lee	0.00	-	-
Apr 19, 2024	-	-	Jae-yong Lee	19.06

Mar 17, 2023: Seung-hwan Han resigned from his position as CEO, and Executive Director Hai-lin Jeong was appointed as CEO.

Apr 21, 2023: The share ratio of the major shareholder was changed (18.13%→18.26%) due to the cancellation of treasury shares (1,295,411 common shares).

May 15, 2024: Jung-suk Koh resigned from his position as CEO, and Jae-eon Lee was appointed as CEO.

Apr 19, 2024: The share ratio of the major shareholder changed (18.26%→19.06%) due to the cancellation of treasury shares (7,807,563 common shares).

(2) Financial status of the recent settlement term of the major shareholder (Samsung C&T) of the major shareholder (Samsung Life Insurance)

Classification	(KRW mil)
Name of the corporation or organization	Samsung C&T
Total assets	61,990,427
Total liabilities	24,731,887
Total equity	37,258,540
Revenue	42,103,238
Operating profit	2,983,397
Net profit	2,772,012

The financial status is as of December 31, 2024, 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 imports and sells clothing. 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 (<https://dart.fss.or.kr>) for more details of the major shareholder of the major shareholder.

### 3. Change of the major shareholder

N/A

## 4. Ownership of shares

### A. Share ownership status

As of December 31, 2024

Classification	Name	Number of shares owned	Share ratio (%)	Note
Shareholders with over 5% voting shares <sup>1)</sup>	Samsung Life Insurance	513,535,800	8.60	Including special accounts
	National Pension Service	433,041,739	7.25	-
	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		-	-	-

Including shares with limited voting rights in accordance with relevant laws. For more information, please refer to 『V I . Corporate Governance-3. General meeting of shareholders-B. Voting shares』.

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.

### B. Minority shareholders

As of December 31, 2024

Classification	Shareholder			Shares owned			Note
	Number of shareholders	Total shareholders	Portion (%)	Number of shares	Total number of shares	Portion (%)	
Minority shareholder	5,160,210	5,160,297	99.99	4,073,349,914	5,969,782,550	68.23	-

Number of voting shares, including those with limited voting rights in accordance with relevant laws. Shareholders with shares less than 1/100 of total issued stocks

## 5. Stock price and stock transactions

### A. Domestic stock market

Type		Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024
Common stock	Stock price (KRW)	High	87,800	83,100	74,400	61,300	58,700
		Low	80,400	71,400	61,500	55,900	49,900
		Average	84,383	76,500	66,033	59,295	55,776
	Volume (shares)	High (day)	45,791,193	54,608,790	49,402,713	45,262,214	52,527,995
		Low (day)	11,317,202	7,805,598	12,641,376	14,420,260	13,877,396
		Month	477,159,149	402,010,176	516,679,519	537,302,984	581,402,427
Preferred stock	Stock price (KRW)	High	69,800	64,800	60,000	51,400	49,050
		Low	63,000	56,100	50,900	47,650	42,650
		Average	66,248	61,267	54,322	49,568	47,098
	Volume (shares)	High (day)	3,661,034	2,892,408	4,075,148	5,977,382	5,717,164
		Low (day)	754,676	519,390	1,085,368	1,266,982	672,154
		Month	39,489,781	29,613,234	38,893,609	45,501,469	39,042,600

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			Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	
Common stock	Price per GDR	High	USD	1,612.00	1,499.00	1,395.00	1,164.00	1,068.00	971.50
			KRW	2,230,041	2,068,770	1,862,046	1,521,232	1,473,092	1,390,605
		Low	USD	1,449.00	1,328.00	1,169.00	1,014.00	898.00	904.50
			KRW	2,007,010	1,806,877	1,542,612	1,399,827	1,263,755	1,333,323
		Average	USD	1,526.09	1,420.33	1,235.86	1,091.48	995.74	935.93
			KRW	2,111,162	1,925,384	1,650,487	1,480,282	1,387,438	1,341,616
	Volume (shares)	High (day)		27,882	59,610	34,961	31,302	46,338	74,174
		Low (day)		3,832	5,455	7,597	9,128	4,956	2,189
		Month		281,497	348,482	371,268	390,246	450,652	373,507

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			Jul 2024	Aug 2024	Sep 2024	Oct 2024	Nov 2024	Dec 2024	
Preferred stock	Price per GDR	High	USD	1,266.00	1,184.00	1,128.00	976.00	882.00	815.00
			KRW	1,751,384	1,610,358	1,505,654	1,275,534	1,233,212	1,166,591
		Low	USD	1,138.00	1,064.00	983.00	865.00	770.00	750.00
			KRW	1,572,716	1,447,678	1,297,167	1,194,133	1,078,847	1,087,275
		Average	USD	1,196.96	1,136.38	1,018.05	916.65	845.95	786.55
			KRW	1,655,849	1,540,462	1,359,603	1,243,180	1,178,730	1,127,492
	Volume (shares)	High (day)		2,900	3,035	3,916	5,272	5,882	6,966
		Low (day)		303	220	459	342	258	282
		Month		24,777	22,224	33,421	50,799	34,361	43,713

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.

On February 13, 2025, the Company delisted its DR preferred stock from the Luxembourg Stock Exchange and listed the same DR preferred stock on the London Stock Exchange on the same date.

## VIII Executives and Employees

### 1. Executives and employees

#### A. Registered Executives

As of December 31, 2024

(Shares)

Name Gender Date of birth	Position	Registered Executive	Full-time/ part-time	Responsibility	Major career	No. of shares owned		Relationship with major shareholder	Length of service (months)	Term expiration
						Common	Preferred			
Jong-hee Han Male Mar 1962	Vice Chairman	Executive Director	Full	CEO (head of DX)	Bachelor's degree in Electronic Engineering from Inha University Head of DX Division	25,000	-	Executive Member of an affiliate	58	Mar 17, 2026
Tae-moon Roh Male 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	28,000	-	Executive Member of an affiliate	34	Mar 15, 2025
Jung-bae Lee Male Feb 1967	Executive Advisor	Executive Director	Full	Executive Advisor	Doctor's degree in Electronic Engineering from Seoul National University Head of Memory Business	21,800	-	Executive Member of an affiliate	34	Mar 15, 2025
Han-jo Kim Male Jul 1956	Director	Independent Director	Part	Board Chair Head of Audit Committee Related Party Transactions Committee Compensation Committee Head of Sustainability Committee	Bachelor's degree in French language and Literature from Yonsei University Vice Chairman, Hana Financial Group	6,985	-	Executive Member of an affiliate	70	Mar 19, 2025
Jun-sung Kim Male Oct 1967	Director	Independent Director	Part	Compensation Committee Sustainability Committee	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	34	Mar 15, 2025
Eunnyeong Heo Male Aug 1964	Director	Independent Director	Part	-Head of Related Party Transactions Committee Independent Director Recommendation Committee Sustainability Committee	Doctor's degree in Mineral Economics from The Pennsylvania State University Professor of College of Engineering at Seoul National University	-	-	Executive Member of an affiliate	26	Nov 2, 2025
Myung-hee Yoo Female Jun 1967	Director	Independent Director	Part	-Audit Committee Related Party Transactions Committee Independent Director Recommendation Committee Sustainability Committee	Doctor's degree in Administrative Law from Vanderbilt University Trade Minister, Ministry of Trade, Industry and Energy	-	-	Executive Member of an affiliate	26	Nov 2, 2025
Je-yoon Shin Male Mar 1958	Director	Independent Director	Part	Head of Independent Director Recommendation Committee Compensation Committee Sustainability Committee	Bachelor's Degree in Economics from Seoul National University Chair of Financial Services Commission	-	-	Executive Member of an affiliate	10	Mar 28, 2027
Hye-kyung Cho Female Jul 1964	Director	Independent Director	Part	Audit Committee Sustainability Committee	Doctor's degree in Robotics from Seoul National University Professor of Applied AI at Hansung University	500	-	Executive Member of an affiliate	10	Mar 19, 2027

Number of shares owned is 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 (<https://dart.fss.or.kr>).

Relationship with major shareholder is in accordance with Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

Mar 20, 2024: Je-yoon Shin was newly appointed as Independent Director, Hye-kyung Cho was newly appointed as Independent Director for Audit Committee member, and Myung-hee Yoo was appointed as member of the Audit Committee at the AGM. Independent Director Eunnyeong Heo and Independent Director Myung-hee Yoo were appointed as members of the Related Party Transaction Committee; Independent Director Je-yoon Shin was appointed as member of the Independent Director Recommendation Committee, Compensation Committee, and Sustainability Committee; and Independent Director Hye-Kyung Cho was appointed as member of the Sustainability Committee at the Board meeting.

Mar 20, 2024: Independent Director Sun-uk Kim vacated her position.

Mar 22, 2024: Term expired for Independent Director Jeong Kim.

Apr 26, 2024: Independent Director Eunnyeong Heo was appointed as the Head of the Related Party Transaction Committee.

May 21, 2024: Kye-hyun Kyung resigned from his position as Executive Director.

Jul 29, 2024: Independent Director Je-Yoon Shin was appointed as the Head of the Independent Director Recommendation Committee.

Dec 26, 2024: Hark-kyu Park resigned from his position of Executive Director.

After the reporting date, Independent Director Han-jo Kim was appointed as a member of the Independent Director Recommendation Committee at the first Board meeting held in 2025 (Jan 31) and was appointed as the Head of the Compensation Committee on Feb 14, 2025.

## B. Registered executive director candidates (or to be retired)

As of Dec 31, 2023

	Name	Gender	Date of birth	Executive or Independent Director	Career highlights	Due Date of appointment or retirement	Relationship with the major shareholder <sup>1)</sup>
Appointment	Young-Hyun Jun	M	Dec 1960	Executive Director	M.S./Ph.D. in electrical engineering, Korea Advanced Institute of Science and Technology 2017–2022: CEO, Samsung SDI 2024–Present: Head of Device Solutions (DS), Head of Memory Business, Head of Samsung Advanced Institute of Technology (SAIT)	Mar 19, 2025	Executive member of affiliate
Appointment	Tae-Moon Roh	M	Sep 1968	Executive Director	M.S./Ph.D. in electrical engineering, Pohang University of Science and Technology 2017–2020: Head of Mobile R&D Office, Mobile Business 2020–Present: Head of MX Business	Mar 19, 2025	Executive member of affiliate
Appointment	Jai-Hyuk Song	M	Aug 1967	Executive Director	M.S./Ph.D. in Electronics Engineering, Seoul National University 2022: Head of Semiconductor R&D Center 2022–Present: CTO of Device Solutions (DS), Head of Semiconductor R&D Center	Mar 19, 2025	Executive member of affiliate
Appointment	Jun-Sung Kim	M	Oct 1967	Independent Director	B.S. in Economics & Industrial Management, Carnegie Mellon University 2013–2020: Managing Director, Government of Singapore Investment Corporation (GIC) 2022–Present: Chief Investment Officer(CIO), National University of Singapore Endowment Fund	Mar 19, 2025	Executive member of affiliate
Appointment	Eunnyeong Heo	M	Aug 1964	Independent Director	Ph.D. in Mineral Economics, The Pennsylvania State University 2017–2019: Vice president, International Association for Energy Economics 1996–Present: Professor, College of Engineering, Seoul National University	Mar 19, 2025	Executive member of affiliate
Appointment	Myung-Hee Yoo	F	Jun 1967	Independent Director	J.D., Vanderbilt University Law School 2019–2021: Trade Minister, Ministry of Trade, Industry and Energy 2022–present: Visiting Professor, Graduate School of International Studies, Seoul National University	Mar 19, 2025	Executive member of affiliate

	Name	Gender	Date of birth	Executive or Independent Director	Career highlights	Due Date of appointment or retirement	Relationship with the major shareholder <sup>1)</sup>
Appointment	Hyuk-Jae Lee	M	Feb 1965	Independent Director	Ph.D. in Electrical and Computer Engineering, Purdue University 2024–present: Director of Interuniversity Semiconductor Research Center, Seoul National University 2023–present: Head of Project Team, SNU Graduate School of AI Semiconductor 2001–present: Professor, Department of Electrical and Computer Engineering , Seoul National University	Mar 19, 2025	-

The above are agenda items for the 56th AGM, which is held after the disclosure of the report. Details of any rejections or adjustments at the AGM will be published in future reports.

1) In accordance with Article 3 Paragraph 1 of the Enforcement Decree of the Act on Corporate Governance of Financial Companies.

## C. Registered Executives with concurrent positions

As of December 31, 2024

Concurrent office holder		Company			
Name	Position	Name of company	Position	Period	
Myung-hee Yoo	Independent Director	HD Hyundai Construction Equipment	Independent Director	2022–present	
Hye-kyung Cho	Independent Director	Hyundai E&C	Independent Director	2021–present	

## D. Employees

As of December 31, 2024

(KRW mil)

Division	Gender	Number of employees <sup>1)</sup>				Average length of service (years)	Total compensation	Average compensation per employee <sup>2)</sup>	Non-affiliated <sup>3)</sup>		
		Regular	Contract-based	Others	Total				Male	Female	Total
DX	M	37,953	338	-	38,291	16.9	-	-	29,298	13,291	42,589
	F	12,410	110	-	12,520	13.8	-	-			
DS	M	56,463	159	-	56,622	10.9	-	-	29,298	13,291	42,589
	F	22,020	27	-	22,047	11.3	-	-			
Gender total	M	94,416	497	-	94,913	13.4	12,863,945	139	29,298	13,291	42,589
	F	34,430	137	-	34,567	12.2	3,407,173	106			
Total		128,846	634	-	129,480	13.0	16,271,118	130			

Separate basis; represents employees of domestic headquarters in Korea, including employees on leave and excluding 9 registered executives (3 Executive Directors and 6 Independent Directors).

Total compensation for 2024 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.

Calculated based on average number of employees: 124,553employees (male: 92,640, female: 31,913).

## E. Status of Childcare Support Programs and Flexible Work Hours

### Childcare Support Program

As of December 31, 2024

(Persons)

Category		2024	2023	2022
Number of employees using parental leave <sup>1)</sup>	M	1,510	1,303	1,349
	F	3,382	3,167	3,237
	Total	4,892	4,470	4,586
Paternity leave usage rate <sup>2)</sup>	M	13.6%	12.2%	8.3%
	F	97.8%	96.3%	97.0%
	Total	39.5%	37.4%	34.5%
Employees returning from parental leave and remaining employed for 12+ months <sup>3)</sup>	M	777	771	518
	F	1,750	1,594	1,687
	Total	2,527	2,365	2,205
Number of employees using reduced working hours for childcare <sup>4)</sup>		161	148	120
Number of employees using spousal paternity leave <sup>5)</sup>		3,148	2,841	2,989

1) Number of employees who took parental leave during the year.

2) Among employees (working or on leave at end-year) who had a child born during the year, the percentage who took parental leave within one year of the birth.

3) Number of employees who returned from parental leave in the previous year and remained employed for at least 12 months thereafter.

4) Number of employees who used reduced working hours for childcare during the year.

5) Number of employees who took spousal paternity leave during the year.

### Flexible Work Hours

As of December 31, 2024

(Persons)

Category	2024	2023	2022
Adoption of flexible working hours <sup>1)</sup>	Active	Active	Active
Number of employees using staggered working hours	507	340	365
Number of employees using selective working hours <sup>2)</sup>	105,419	100,958	98,162
Number of employees using remote work <sup>3)</sup>	2,064	3,080	8,063

1) Includes adoption of staggered working hours, selective work hours and remote work (including telecommuting), etc.

2) Number of employees use Flextime work hours, in which they adjust their starting and ending times as well as daily working hours, within a period of adjustment not exceeding one month, provided that the average weekly working hours do not exceed 40 hours.

3) Calculated by dividing the number of total annual remote work days (telecommuting, remote training, etc.) by the total number of business days in the year.

\*Number of employees at end-year subject to staggered working hours and selective working hours based on employment at end-year.

## F. Remuneration of non-registered Executives

As of December 31, 2024

(KRW mil)

Classification	Number of employees	Total compensation	Average compensation per employee	Note
Non-registered Executives	1,003	653,389	671	-

In office as of the reporting date, and non-registered executives whose earned income was not domestic were excluded.

Total compensation for 2024 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 2024 includes incentives, and timing of the incentives being paid differ every year. Average compensation per employee is calculated based on the average of the 976 employees.

## 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 <sup>1)</sup>	Amount approved at shareholders' meeting <sup>2)</sup>	Note
Registered Directors	5	-	-
Independent Directors	3	-	-
Audit Committee members or Auditor	3	-	-
Total	11	43,000	-

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 20, 2024, 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	Total amount of remuneration	Average remuneration per Director	Note
9	29,770	2,706	-

There are no recognized expenses (compensation expenses) in this term from granting stock options.

Based on the Income Tax Act that incumbent 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.

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 received as non-registered executives for Directors who were newly appointed or resigned during the fiscal year.

Remuneration paid, by Director type

(KRW mil)

	Number of persons <sup>1)</sup>	Total remuneration <sup>2)</sup>	Average remuneration per Director	Note
Registered Directors (excluding Independent Directors and Audit Committee members)	3	28,670	5,734	The average remuneration per Director is calculated based on 5 Directors.
Independent Directors (excluding Audit Committee members)	3	740	247	The average remuneration per Director is calculated based on 3 Directors and auditors.
Audit Committee members	3	360	120	The average remuneration per Director is calculated based on 3 directors and auditors.
Auditor	-	-	-	-

There are no recognized expenses (compensation expenses) in this term from granting stock options.

Based on the Income Tax Act that incumbent 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.

As of the reporting date.

Earned income as per Income Tax Act (Article 20: Wage and Salary Income, Article 21: Other Income, Article 22: Retirement income)

Includes remuneration received as non-registered executives for Directors who were newly appointed or resigned during the fiscal year.

(2) 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)	<p>Salary: In accordance with internal regulations for executive treatment (Board resolution), remuneration is determined based on position, responsibilities, and performance results.</p> <p>Traditional-holiday bonuses: 100% of monthly wage for each</p> <p>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.)</p> <p>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 (<math>\pm</math> assessed considerations) and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance.)</p> <p>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, and subject to reduction or clawback in accordance with regulations</p> <p>Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)</p>

Type	Criteria and methodology
Independent Directors (excluding Audit Committee members)	<p>Salary: <i>In accordance with internal regulations for independent director treatment, remuneration is determined based on their roles, legal responsibilities and associated risks, travel distance, opportunity costs, etc.</i></p> <p>Fringe benefits: <i>Medical services, checkups, group accident insurance are provided in line with the internal regulations for independent director treatment</i></p>
Audit Committee members	<p>Salary: In accordance with internal regulations for the treatment of Independent Directors, remuneration for Audit Committee members is determined individually and accounts for their roles, legal responsibilities and associated risks, travel distance, opportunity costs, etc.</p> <p>Fringe benefits: Medical services, checkups, group accident insurance are provided in line with the internal regulations for independent director treatment</p>

<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 remuneration	Remuneration not included in total amount
Jong-hee Han	CEO	5,240	-
Kye-hyun Kyung	Senior Advisor	8,036	-
Tae-moon Roh	Executive Director	5,098	-
Hark-kyu Park	President	3,346	-
Jung-bae Lee	Executive Advisor	6,950	-

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)	Earned Income	Salary	1,617 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 121 million per month from January to February, KRW 181 million in March, and KRW 133 million per month from April to December.
		Bonus	3,492 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 and retroactively applied).
			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 recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022; and that the DX Division achieved revenue of KRW 174.9 trillion and operating profit of KRW 12.4 trillion in 2024. Qualitative indicators include his contributions to enhancing business competitiveness by establishing growth strategies for each global region and expanding connectivity between products. The bonus amount was determined based on the indicators listed above.
	Profit from exercising stock option	-	n/a
	Other Income	131	Fringe benefits: Medical services, checkups, and group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a
Other Income		-	n/a

Name	Type of remuneration	Total amount	Criteria and methodology
Kye-hyun Kyung (Senior Advisor)	Salary	1,188	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 99 million per month from January to December.
			Traditional-holiday: 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 and retroactively applied). 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 recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022; and that the DS Division achieved revenue of KRW 111.1 trillion and operating profit of KRW 15.1 trillion in 2024. Qualitative indicators include his contributions to establishing the basis for a turnaround in the semiconductor business and paying a key role in setting the direction of new businesses and identifying opportunities for the Division. The bonus amount was determined based on the indicators listed above.
	Bonus	1,453	n/a
			Fringe benefits: Medical services, checkups, and group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	5,272	In accordance with internal regulations for severance pay of executives (Board resolution), calculated by multiplying KRW 99 million (monthly wage at the time of retirement) by 16 (years of service) and a variable within a 1.0–3.5 range.
	Other Income	-	n/a

Name	Type of remuneration	Total amount	Criteria and methodology
Tae-moon Roh (Director)	Earned Income	Salary	1,463  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 104 million per month from January to February, KRW 182 million in March, and KRW 119 million per month from April to December.
		Bonus	3,525  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 (± assessed considerations) and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance and retroactively applied) 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 recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022; and that the MX Business achieved revenue of KRW 114.4 trillion in 2024. Qualitative indicators include his contributions to achieving solid performance by launching AI phones and expanding Galaxy ecosystem, as well as securing foundations for sustainable growth through new businesses including Samsung Health. The bonus amount was determined based on the indicators listed above.
		Profit from exercising stock option	-  n/a
		Other Income	111  Fringe benefits: Medical services, checkups, and group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
		Retirement Income	-  n/a
		Other Income	-  n/a

Name	Type of remuneration	Total amount	Criteria and methodology
Hark-kyu Park (President)	Earned Income	Salary	1,133 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 85 million per month from January to February, KRW 127 million in March and KRW 93 million per month from April to June.
		Bonus	2,067 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 (± assessed considerations) and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance. and retroactively applied) 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 recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022; and that the DX Division achieved revenue of KRW 174.9 trillion and operating profit of KRW 12.4 trillion in 2024. Qualitative indicators include his contribution to supporting the Company to achieve solid results through efficient resource management as well as risk management; and to establishing sustainable business structure by identifying new growth engines. The bonus amount was determined based on the indicators listed above.
		Profit from exercising stock option	- n/a
		Other Income	146 Fringe benefits: Medical services, checkups, and group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
		Retirement Income	- n/a
	Other Income	-	n/a

Name	Type of remuneration	Total amount	Criteria and methodology
Jung-bae Lee (Advisor )	Earned Income	Salary	992 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 83 million per month from January to December.
		Bonus	1,642 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 (± assessed considerations) and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance, and retroactively applied) 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 recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022; and that the Memory Business achieved revenue of KRW 84.5 trillion in 2024. Qualitative indicators include his contribution to enhancing business competitiveness by optimizing the product lineup centered on high value-added memory products, expanding the market for these products, and improving memory profitability. The bonus amount was determined based on the indicators listed above.
		Profit from exercising stock option	- n/a
		Other Income	201 Fringe benefits: Medical services, checkups, and group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
		Retirement Income	4,114 In accordance with internal regulations for severance pay of executives (Board resolution), calculated by multiplying KRW 83 million (monthly wage at the time of retirement) by 15 (years of service) and a variable within a 1.0–3.5 range.
		Other Income	- n/a

## &lt; Remuneration for five highest-paid Executive Directors who are paid KRW 500 million or more &gt;

## (1) Summary on remuneration by Executive

Name	position	Total amount of remuneration	Remuneration not included in total amount
Kye-hyun Kyung	Senior Advisor	8,036	-
Jung-bae Lee	Advisor	6,950	-
Si-young Choi	Advisor	6,900	-
Jong-hee Han	CEO	5,240	-
Tae-moon Roh	Director	5,098	-

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
Kye-hyun Kyung (Senior Advisor)	Earned Income	Salary	1,188  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 99 million per month from January to December.
		Bonus	1,453  Traditional-holiday: 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 and retroactively applied). 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 recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022; and that the DS Division achieved revenue of KRW 111.1 trillion and operating profit of KRW 15.1 trillion in 2024. Qualitative indicators include his contributions to establishing the basis for a turnaround in the semiconductor business and paying a key role in setting the direction of new businesses and identifying opportunities for the Division. The bonus amount was determined based on the indicators listed above.
		Profit from exercising stock option	- n/a
		Other Income	124 - Fringe benefits: Medical services, checkups, and group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	5,272	- In accordance with internal regulations for severance pay of executives (Board resolution), calculated by multiplying KRW 99 million (monthly wage at the time of retirement) by 16 (years of service) and a variable within a 1.0–3.5 range.
	Other Income	-	n/a

Name	Type of remuneration	Total amount	Criteria and methodology
Jung-bae Lee (Advisor )	Salary	992	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 83 million per month from January to December.
	Bonus	1,642	<p>Traditional-holiday bonus: 100% of monthly wage</p> <p>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)</p> <p>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 (± assessed considerations) and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance. and retroactively applied)</p> <p>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.</p> <p>Quantitative indicators suggest that the Company recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022; and that the Memory Business achieved revenue of KRW 84.5 trillion in 2024. Qualitative indicators include his contribution to enhancing business competitiveness by optimizing the product lineup centered on high value-added memory products, expanding the market for these products, and improving memory profitability. The bonus amount was determined based on the indicators listed above.</p>
	Profit from exercising stock options	-	n/a
	Other Income	201	Fringe benefits: Medical services, checkups, and group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	4,114	In accordance with internal regulations for severance pay of executives (Board resolution), calculated by multiplying KRW 83 million (monthly wage at the time of retirement) by 15 (years of service) and a variable within a 1.0–3.5 range.
	Other Income	-	n/a

Name	Type of remuneration	Total amount	Criteria and methodology
Si-young Choi (Advisor )	Salary	936	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 78 million per month from January to December.
			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 (± assessed considerations)and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance. and retroactively applied) 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 recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022;and that the DS Division achieved revenue of KRW 111.1 trillion and operating profit of KRW 15.1trillion in 2024. Qualitative indicators include his contributions to establishing technological capabilities across process nodes and enhancing mid- to long-term business competitiveness through strengthening networks with both domestic and global fabless customers, as well as identifying new business opportunities. The bonus amount was determined based on the indicators listed above.
	Bonus	1,635	n/a
			Fringe benefits: Medical services, checkups, and group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	4,154	In accordance with internal regulations for severance pay of executives (Board resolution), calculated by multiplying KRW 78 million (monthly wage at the time of retirement) by 16 (years of service) and a variable within a 1.0–3.5 range.
	Other Income	-	n/a

Name	Type of remuneration	Total amount	Criteria and methodology
Jong-hee Han (CEO)	Salary	1,617	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 121 million per month from January to February, KRW 181 million in March, and KRW 133 million per month from April to December.
			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 and retroactively applied).
	Earned Income	3,492	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 recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022; and that the DX Division achieved revenue of KRW 174.9 trillion and operating profit of KRW 12.4 trillion in 2024. Qualitative indicators include his contributions to enhancing business competitiveness by establishing growth strategies for each global region and expanding connectivity between products. The bonus amount was determined based on the indicators listed above.
			Profit from exercising stock option n/a
	Other Income	131	Fringe benefits: Medical services, checkups, and group accident insurance are provided in line with the internal regulations for executive treatment (Board resolution)
	Retirement Income	-	n/a
	Other Income	-	n/a

Name	Type of remuneration	Total amount	Criteria and methodology
Tae-moon Roh (Director)	Earned Income	Salary	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 104 million per month from January to February, KRW 182 million in March, and KRW 119 million per month from April to December.
		Bonus	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 (± assessed considerations) and cost of capital for the fiscal year by business unit. (Adjusted according to individual performance and retroactively applied) 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 recorded a ROE of 13.2%, EBIT margin of 16.6%, and stock performance of -0.9% over 2020–2022; and that the MX Business achieved revenue of KRW 114.4 trillion in 2024. Qualitative indicators include his contributions to achieving solid performance by launching AI phones and expanding Galaxy ecosystem, as well as securing foundations for sustainable growth through new businesses including Samsung Health. The bonus amount was determined based on the indicators listed above.
		Profit from exercising stock option	- n/a
		Other Income	111 Fringe benefits: Medical services, checkups, and 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

### (1) Status of stock options granted to registered Directors

As of December 31, 2024, there were no accumulated-basis unexercised stock options granted to registered Directors, auditors, or people who instruct another person to conduct business.

Type	Number <sup>1)</sup>	Total fair value of stock options	Note
Registered Director	3	-	-
Independent Director	3	-	-
Audit Committee member or auditor	3	-	-
Person who instructs another person to conduct business	1,134	-	-
<b>Total</b>	<b>1,143</b>	<b>-</b>	<b>-</b>

1) Based on the number of persons as of the reporting date.

## C. Stock-based compensation system excluding stock options

The Company implemented a stock-based compensation system for executive OPI in January 2025, agreeing to pay part of performance incentives in the form of restricted shares (RSA) in January 2026 through a resolution of the Committee under the Board of Directors.

The Company and its executives entered into an agreement in which registered executives receive 100% of OPI in shares, and VPs, EVPs, and presidents receive a percentage based on their preference, with respective minimums of 50%, 70%, and 80%. Presidents and above are prohibited from selling the stock for two years after the grant, and all other executives are restricted for one year. Also, the stock-based compensation plan includes a provision that if the stock price at the time of the grant in January 2026 is lower than the stock price at the time of agreement, the number of granted shares will be reduced by the rate of decline.

※ The reference stock price is calculated as the arithmetic average of the volume-weighted average prices over the 1-week, 1-month, and 2-months from the previous day of the reference date

Agreement date	Type of agreed stock	Number of agreed shares	Agreement participants and headcount	Grant date
January 2025	Common	1,176,383	1,054 executives	January 2026

## IX Affiliates and Subsidiaries

### 1. *Affiliates & subsidiaries*

#### A. Affiliates

As of December 31, 2024, Samsung Group is consisted of 63 domestic affiliates. Among the Samsung Group's 63 domestic affiliates, seventeen (17) affiliates including Samsung Electronics are listed, and forty-six (46) affiliates are unlisted.

[As of December 31, 2024]

Name of affiliated group	No. of Affiliates		
	Listed	Unlisted	Total
Samsung	17	46	63

## B. Ownership status of affiliates and subsidiaries

### 1) Domestic

Investee Investor	Samsung C&T Corporation	Samsung BioLogics	Samsung Life Insurance	Samsung SDI	Samsung SDS	SamsungFN REIT	Samsung E&A	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	0.1	19.5	0.1	0.1	8.6	3.1	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.						0.4									1.3	
Samsung Card														1.9	3.0	
Samsung Fire & Marine Insurance						18.7	0.2		1.5						1.0	
S1 Corporation						0.8										
Cheil Worldwide										0.1						
Hotel Shilla																
SDC																
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	39.3	18.9	23.8	15.1	20.9	29.4	71.9	15.0	62.4	20.7	28.6

\* Percent of ownership as of December 31, 2024 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 Card Customer Service
Samsung C&T Corporation					16.7					100.0						
Samsung BioLogics				100.0												
Samsung Life Insurance	7.3					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														100.0	
Samsung Fire & Marine Insurance																
S1 Corporation																
Cheil Worldwide																
Hotel Shilla																
SDC																
Samsung Asset Management								100.0								
Samsung Electronics Service														100.0		
Miracom																
Samsung Global Research																
Harman International Industries, Inc.																
Total	16.9	100.0	68.5	100.0	100.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	99.3	100.0	100.0	100.0

\* Percent of ownership as of December 31, 2024 based on common shares

Investee Investor	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	HDC Shilla Duty Free LTD	Open Hands
Samsung C&T Corporation																
Samsung BioLogics																
Samsung Life Insurance																
Samsung SDI									50.0					100.0		
Samsung SDS													81.8			100.0
Samsung Electro- mechanics																
Samsung Electronics					91.5		70.0									
Samsung Heavy Industries																
Samsung Securities.																
Samsung Card																
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					50.0	
SDC	50.0												50.0			
Samsung Asset Management			100.0													
Samsung Electronics Service																
Miracom														0.5		
Samsung Global Research																
Harman International Industries, Inc.																
Total	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	50.0	100.0

\* Percent of ownership as of December 31, 2024 based on common shares

Investee Investor	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	Stellar Forest of Hope
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		83.6							56.5	9.4				
Samsung Electro- mechanics			23.8											
Samsung Electronics			29.8											100.0
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										100.0				
SDC														
Samsung Asset Management														
Samsung Electronics Service														
Miracom														
Samsung Global Research														
Harman International Industries, Inc.											100.0			
Total	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	100.0

※ Percent of ownership as of December 31, 2024 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.	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.	SAMSUNG C&T CHARGING SOLUTIONS LLC	100.0
Samsung Renewable Energy Inc.	SP Arrow 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 Arrow EPC GP Inc.	100.0
Samsung Renewable Energy Inc.	SRE Arrow 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
SP Arrow Wind Ontario GP Inc	SP Arrow Wind Ontario LP	0.0
Samsung C&T Oil & Gas Parallel Corp.	PLL Holdings LLC	83.6
SRE GRW EPC GP Inc.	SRE GRW EPC LP	0.0
SRE SKW EPC GP Inc.	SRE SKW EPC LP	0.0
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

Investor	Investee	Ownership
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 Arrow EPC GP Inc.	SRE Arrow EPC LP	0.0
SRE Wind GP Holding Inc.	SP Arrow 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 C&T Renewables, LLC	100.0
Samsung Solar Energy LLC	Samsung Solar Energy 3, LLC	100.0
Samsung C&T Renewables, LLC	5S ENERGY HOLDINGS, LLC	50.0
Samsung C&T Deutschland GmbH	SungEel Recycling Park Thuringen GmbH	50.0
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	Samsung C&T Renewable Energy Europe GmbH	100.0
Samsung C&T Deutschland GmbH	S.C. Otelinox S.A	99.9
Samsung C&T Corporation Poland LLC	Samsung C&T Corporation Romania S.R.L	100.0
Samsung C&T Renewable Energy Europe GmbH	Arteus Partner I HoldCo GmbH & Co. KG	50.0
Samsung C&T Renewable Energy Europe GmbH	Arteus Partner I GP GmbH	50.0
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.	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
Vista Contracting and Investment Global Pte. Ltd.	Vista NEXT Limited	51.0
Vista Contracting and Investment Global Pte. Ltd.	CME - VISTA JOINT STOCK COMPANY	51.0
Vista Contracting and Investment Global Pte. Ltd.	WELVISTA COMPANY LIMITED	30.0
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 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	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
Samsung BioEpis	SAMSUNG BIOEPIS BR PHARMACEUTICAL LTDA	100.0
Samsung Display	Intellectual Keystone Technology LLC	41.9

Investor	Investee	Ownership
Samsung Display	Samsung Display America Holdings, Inc	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	Novaled GmbH	9.9
SEMES	SEMES America, Inc.	100.0
SEMES	SEMES (XIAN) Co., Ltd.	100.0
Samsung Medison Co., Ltd.	Sonio SAS	100.0
Samsung Electronics America, Inc.	NeuroLogica Corp.	100.0
Samsung Electronics America, Inc.	Samsung Lennox HVAC North 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
Samsung Semiconductor, Inc.	Samsung Federal, Inc.	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
Samsung Display America Holdings, Inc	eMagin Corporation	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.	Roon Labs, 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 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 Becker Automotive Systems, Inc.	Harman International (Thailand) Co., Ltd.	99.0
Harman Professional, Inc.	Harman Singapore Pte. Ltd.	100.0
Harman Professional, Inc.	Harman International (Thailand) Co., Ltd.	1.0
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
Samsung Electronics (UK) Ltd.	Samsung Semiconductor Europe Limited	100.0
Samsung Electronics Holding GmbH	Samsung Semiconductor Europe GmbH	100.0

Investor	Investee	Ownership
Samsung Electronics Holding GmbH	Samsung Electronics GmbH	100.0
Sonio SAS	Sonio Corporation	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 BALTIKS 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 Middle East and North Africa	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics South Africa Production (pty) Ltd.	100.0
Samsung Electronics Benelux B.V.	Samsung Electronics Turkiye	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 FC LLC	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 Becker Automotive Systems GmbH	Harman International Romania SRL	0.0
Harman Becker Automotive Systems GmbH	Apostera UA, LLC	100.0
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	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
Harman Hungary Financing Ltd.	Harman International Industries Limited	100.0
Harman Consumer Nederland B.V.	AKG Acoustics GmbH	100.0
Harman Consumer Nederland B.V.	Harman Audio Iberia Espana Sociedad Limitada	100.0
Harman Consumer Nederland B.V.	Harman Holding Limited	100.0

Investor	Investee	Ownership
Harman Audio Iberia Espana 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 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
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.	SAMSUNG 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.	OXFORD SEMANTIC TECHNOLOGIES LIMITED	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 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.	42.0
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.	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
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
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

Investor	Investee	Ownership
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	StarPlus Energy LLC.	51.0
Samsung SDI	Novaled GmbH	50.1
Samsung SDI	Samsung SDI Southeast Asia PTE. LTD.	100.0
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 Mexico, S.A. de C.V.	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	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	iMarket Asia Co., Ltd.	8.7
Samsung Electro-Mechanics America, Inc.	Samsung Electro-Mechanics Mexico, S.A. de C.V.	0.0
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	37.0
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
Samsung Heavy Industries Co.,Ltd.	SAMSUNG HEAVY INDUSTRIES (M) SDN.BHD	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

Investor	Investee	Ownership
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 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 Corporation Poland LLC	100.0
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	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 Renewable Energy Australia Pty Ltd	100.0
Samsung C&T Corporation	SAMSUNG C&T PHILIPPINES, CORP.	100.0
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
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

Investor	Investee	Ownership
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 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 Welstory	Welstory Hungary Kft.	100.0
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
WELSTORY VIETNAM COMPANY LIMITED	WELVISTA COMPANY LIMITED	70.0
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.	Beijing Pengtai Borui E-commerce 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	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 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 MALAYSIA SDN. BHD.	100.0
Samsung SDS	Samsung SDS Global SCL Australia Pty.,Ltd.	100.0
Samsung SDS	SDS-ACUTECH CO., Ltd.	50.0
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 Limited	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

Investor	Investee	Ownership
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
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 Logistica 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 Romania S.R.L	0.0
Samsung SDS Global SCL Netherlands Cooperatief U.A.	Samsung SDS Rus Limited Liability Company	0.0
Samsung E&A Co., Ltd.	Samsung E&A America Inc.	100.0
Samsung E&A Co., Ltd.	Samsung Project Management Inc.	100.0
Samsung E&A Co., Ltd.	Samsung E&A Hungary Co. Ltd.	100.0
Samsung E&A Co., Ltd.	Samsung Engineering Italy S.R.L.	100.0
Samsung E&A Co., Ltd.	Samsung E&A Malaysia SDN. BHD.	100.0
Samsung E&A Co., Ltd.	PT Samsung Engineering Indonesia Co., Ltd.	100.0
Samsung E&A Co., Ltd.	Samsung E&A (Thailand) Co., Ltd.	81.0
Samsung E&A Co., Ltd.	Samsung E&A India Private Limited	100.0
Samsung E&A Co., Ltd.	Samsung E&A Vietnam Co., Ltd.	100.0
Samsung E&A Co., Ltd.	GLOBAL MODULE CENTER JOINT STOCK COMPANY	49.6
Samsung E&A Co., Ltd.	Samsung E&A Global Private limited	100.0
Samsung E&A Co., Ltd.	Samsung E&A Shanghai Co., Ltd.	100.0
Samsung E&A Co., Ltd.	Samsung E&A Xi' an Co., Ltd.	100.0
Samsung E&A Co., Ltd.	Samsung E&A Arabia Co., Ltd.	100.0
Samsung E&A Co., Ltd.	Muharraq Wastewater Services Company W.L.L.	99.8
Samsung E&A Co., Ltd.	Muharraq STP Company B.S.C.	6.6
Samsung E&A Co., Ltd.	Muharraq Holding Company 1 Ltd.	65.0
Samsung E&A Co., Ltd.	SAMSUNG ENGINEERING NEC COMPANY LIMITED	60.0
Samsung E&A Co., Ltd.	Samsung E&A Mexico S.A. de C.V.	99.9
Samsung E&A Co., Ltd.	Samsung Engineering Trinidad Co., Ltd.	100.0
Samsung E&A Co., Ltd.	Samsung E&A Manzanillo S.A. De C.V. (SIMA)	99.9
Samsung E&A Co., Ltd.	Grupo Samsung E&A Mexico, S.A. De C.V. (GSIM)	100.0
Samsung E&A Co., Ltd.	Samsung E&A Energia S.A. De C.V.	100.0
Samsung E&A Co., Ltd.	Samsung E&A Bolivia S.A	100.0
Samsung E&A Co., Ltd.	Samsung E&A DUBA S.A. De C.V.	100.0
Samsung E&A Co., Ltd.	Samsung Engineering Kazakhstan L.L.P.	100.0
Samsung E&A America Inc.	Samsung E&A America Construction LLC	100.0
Samsung E&A America Inc.	Samsung E&A Louisiana Construction LLC	100.0
Samsung E&A Malaysia SDN. BHD.	Muharraq Wastewater Services Company W.L.L.	0.3
Samsung E&A India Private Limited	Samsung E&A Global Private limited	0.0
Samsung E&A India Private Limited	Samsung E&A Arabia Co., Ltd.	0.0
Samsung E&A 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 E&A DUBA S.A. De C.V.	Asociados Constructores DBNR, S.A. de C.V.	49.0
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 Greater China Company Limited	98.8
Cheil Worldwide	PENGTAI INTERACTIVE ADVERTISING CO.,LTD	100.0
Cheil Worldwide	Cheil USA Inc.	100.0
Cheil Worldwide	Cheil Central America Inc.	100.0

Investor	Investee	Ownership
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 Worldwide Australia Pty Ltd	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 Maghreb LLC	100.0
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.	99.9
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
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
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
McKinney Ventures LLC	Lockard & Wechsler LLC	100.0
Iris Worldwide Holdings Limited	Iris Nation Worldwide Limited	100.0

Investor	Investee	Ownership
Iris Nation Worldwide Limited	Iris Americas, Inc.	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	100.0
Iris Nation Worldwide Limited	Founded Partners Limited	100.0
Iris Nation Worldwide Limited	Iris Digital Limited	100.0
Iris Nation Worldwide Limited	Iris Ventures (Worldwide) Limited	100.0
Iris Nation Worldwide Limited	WDMP Limited	49.0
Iris Nation Worldwide Limited	Iris Services Limited Dooel 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 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
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 India Private Limited	Diginfluenz Private Limited	51.0
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
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	BNY Trading Hong Kong Limited	100.0
BNY Trading Hong Kong Limited	LOFAN LIMITED	100.0
BNY Trading Hong Kong Limited	KINGMA 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 RETAIL EXPERIENCE KOREA LIMITED	100.0
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
One Agency FZ-LLC	ONE AGENCY PRINTING L.L.C	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.	0.1

\* Percent of ownership as of December 31, 2024 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 14, 2024

(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 December 31, 2024]

		Concurrent position		
Name	Position	Name of company	Position	Full/part time
Sung-wook Kim	Executive VP	Samsung Electronics Sales	Non-Executive director	Part time
Sung-wuk Kang	VP	Samsung Electronics Logitech	Auditor	Part time
Kyung-in Nam	VP	Samsung Electronics Logitech	Non-Executive director	Part time
Jae-yoon Ko	Executive VP	Samsung Electronics Service	Auditor	Part time
Heoung-min Jang	VP	Samsung Electronics Service	Non-Executive director	Part time
Kyu-tae Yoo	Executive VP	Samsung Medison	CEO	Full time
Jae-hyeon Shim	Executive VP	Samsung Medison	Auditor	Part time
Soon-cheol Park	Executive VP	Samsung Venture Investment Corp.	Auditor	Part time
Han-jong Yoo	VP	Samsung Global Research	Auditor	Part time
Christopher Ko	Corporate President	Samsung Bioepis	Executive director	Part time
Jae-kyun Oh	Executive VP	Samsung Display	Auditor	Part time
Khi-jae Cho	Executive VP	SEMES	Auditor	Part time
Hee-don Hwang	Executive VP	SEMES	Non-Executive director	Part time
Doug-yong Sung	Executive VP	SEMES	Non-Executive director	Part time
Jong-hoon Oh	Executive VP	STECO	Auditor	Part time
Yong-deok Jeong	VP	Mirero System	Non-Executive director	Part time

## E. Equity investments in other corporations

The total book value of equity investments in other corporations as of December 31, 2024 is KRW 59,604 billion (for the purpose of management participation, etc.)

(As of December 31, 2024)

(KRW mil)

Investment Purpose	No. of investees			Invested amount				Ending Balance	
	Listed	Unlisted	Total	Beginning Balance	Increase(decrease)				
					Acquisition (Disposal)	Valuation gain(loss)			
Management Participation	20	79	99	59,178,553	21,342	297,046	59,496,941		
General Investment	-	-	-	-	-	-	-	-	
Simple Investment	5	26	31	68,389	-2,943	41,155	106,601		
	25	105	130	59,246,942	18,399	338,201	59,603,542		

## X Transactions with Affiliates and Subsidiaries

### 1. Credit offerings for affiliates and subsidiaries

As of the end of 4Q24, the Company provides comprehensive debt guarantees to support the flexible financing of overseas subsidiaries including Samsung Electronics America, Inc. (SEA).

Company	Relation	Creditor	Type	Purpose	Guarantee start date	Guarantee expiry date	Limit of guarantee		Transactions			Interest Rate(%)
							Period start	Period end	Period start	Change	Period end	
SEA	Affiliate	BOA, etc.	Payment guarantee	Operating fund	Apr 20, 2024	Nov 08, 2025	1,278,000	1,278,000	-	-	-	
SEM	Affiliate	BBVA, etc.	Payment guarantee	Operating fund	Mar 28, 2024	Dec 16, 2025	715,000	715,000	-	-	-	
SAMCOL	Affiliate	Citibank, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	210,000	210,000	-	-	-	
SEDA	Affiliate	BRADESCO, etc.	Payment guarantee	Operating fund	Oct 01, 2024	Dec 16, 2025	329,000	329,000	-	-	-	
SECH	Affiliate	Citibank, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	62,000	64,000	-	-	-	
SEPR	Affiliate	BBVA, etc.	Payment guarantee	Operating fund	Jun 01, 2024	Dec 16, 2025	150,000	150,000	-	-	-	
SSA	Affiliate	SCB, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	318,000	318,000	-	-	-	
SEMAG	Affiliate	SocGen, etc.	Payment guarantee	Operating fund	Nov 09, 2024	Dec 16, 2025	96,000	46,000	8,065	-8,065	-	
SETK	Affiliate	BNP, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	917,000	947,000	320,893	174,428	495,321	47.5%
SETK-P	Affiliate	BNP, etc.	Payment guarantee	Operating fund	Nov 09, 2024	Dec 16, 2025	70,000	70,000	-	-	-	
SECE	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	114,000	114,000	-	-	-	
SEEG	Affiliate	HSBC, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	85,000	85,000	-	-	-	
SEIN	Affiliate	BNP, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Nov 08, 2025	70,000	70,000	-	-	-	
SJC	Affiliate	Mizuho Bank, etc.	Payment guarantee	Operating fund	Apr 28, 2024	Dec 16, 2025	835,508	808,270	-	-	-	
SEUC	Affiliate	Credit Agricole, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	125,000	125,000	-	-	-	
SEDAM	Affiliate	Citibank, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	537,000	537,000	-	-	-	
SECA	Affiliate	BOA	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	70,000	70,000	-	-	-	
SELA	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	60,000	60,000	-	-	-	
SEEH	Affiliate	HSBC, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	888,400	906,400	-	-	-	
SELV	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	10,000	10,000	-	-	-	
SEIL	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	15,600	15,600	-	-	-	
SAPL	Affiliate	BOA, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	404,000	404,000	-	-	-	
SAVINA	Affiliate	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	51,000	51,000	-	-	-	
SCIC	Affiliate	HSBC, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	270,000	270,000	-	-	-	
SESP	Affiliate	SCB	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	30,000	30,000	-	-	-	
SME	Affiliate	SCB	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	110,000	110,000	-	-	-	
SAMEX	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	5,000	5,000	-	-	-	
SEASA	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	2,000	2,000	-	-	-	
SSAP	Affiliate	SCB	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	35,000	35,000	-	-	-	
SEPM	Affiliate	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	35,000	35,000	-	-	-	
SESAR	Affiliate	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	20,000	20,000	-	-	-	
SEUZ	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	10,000	10,000	-	-	-	

Company (relation)	Creditor	Type	Purpose	Guarantee start date	Guarantee expiry date	Limit of guarantee		Transactions			Interest Rate (%)
						Period start	Period end	Period start	Change	Period end	
AdGear Technologies Inc. (affiliate)	BOA	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	2,000	2,000	-	-	-	
Harman International Industries, Inc. (affiliate)	JP Morgan	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	100,000	100,000	-	-	-	
Harman International Japan Co., Ltd. (affiliate)	MUFG	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	25,000	25,000	-	-	-	
Harman Holding Limited (affiliate)	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	30,000	30,000	-	-	-	
Harman do Brasil Industria Eletronica e Participacoes Ltda. (affiliate)	SocGen	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	15,000	15,000	-	-	-	
Harman da Amazonia Industria Eletronica e Participacoes Ltda. (affiliate)											
Harman International Industries Limited (affiliate)	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	30,000	30,000	-	-	-	
<b>Total</b>						8,129,508	8,102,270	328,958	166,363	495,321	

Separate basis.

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.

SEC claimed approximately USD 2,215 thousand in guarantee fees in 2024, and as of the reporting date, has not collected the amount.

The Company manages its liquidity risk by periodically forecasting projected cash flows and utilizing regional cash pooling, which allows for the use of internal funds when an entity in a region lacks liquidity. Subsidiaries participating the cash pooling system in each region can access funds from the pooling parent entities, including SEA, SEEH, SAPL, and SCIC, as needed. Borrowing limits are allocated specifically to each pooling parent entity to prepare for the case that participating subsidiaries need significant liquidity, but does not need separate corporate guarantees for borrowings. For regions where cash pooling is restricted due to local regulations, the Company sets guarantee limits for each subsidiary through comprehensive debt guarantees to ensure efficient management of liquidity risk.

## 2. Acquisitions and disposals of assets with affiliates and subsidiaries

In 2024, the Company sold assets to affiliates, including Samsung Electronics Suzhou Semiconductor Co., Ltd. (SESS), to increase production capacity of such affiliates. Also, the Company acquired assets including facility equipment from affiliates to improve production efficiency.

Company	Relationship	Transaction type	Transaction date <sup>1)</sup>	Asset	Purpose of transaction	Amount <sup>2)</sup>	Gain or loss on disposal
SESS	Affiliate	Asset sale/purchase	Nov 29, 2024	Machinery, etc.	Enhance capacity and production efficiency	28,923	5,672
SCS	Affiliate	Asset sale/purchase	Nov 05, 2024	Machinery, etc.	Enhance capacity and production efficiency	18,152	8,503
SEVT	Affiliate	Asset sale/purchase	Dec 20, 2024	Machinery, etc.	Enhance capacity and production efficiency	4,532	26
SII	Affiliate	Asset sale	Feb 15, 2024	Machinery, etc.	Enhance capacity and production efficiency	1,753	60
TSLED	Affiliate	Asset sale	Oct 22, 2024	Machinery, etc.	Enhance capacity and production	852	273

					efficiency		
SEHC	Affiliate	Asset sale	Aug 07, 2024	Machinery, etc.	Enhance capacity and production efficiency	272	-8
SSEC	Affiliate	Asset sale	Apr 14, 2024	Machinery, etc.	Enhance capacity and production efficiency	250	2
SEDA	Affiliate	Asset sale	Apr 23, 2024	Machinery, etc.	Enhance capacity and production efficiency	149	-
SEV	Affiliate	Asset purchase	Jan 17, 2024	Machinery, etc.	Enhance capacity and production efficiency	132	-
Samsung Biologics	Affiliate	Asset sale	Dec 31, 2024	Vehicle and delivery equipment.	Enhance asset efficiency	122	-14

Separate basis

The above acquisition and disposal transactions of assets are not subject to the Board's approval.

1) Most recent transaction.

2) Properly calculated by an appropriate method based upon market value assessment. Transaction was made under normal conditions (e.g., terms of cash payment within the 15th, 30th of the following month of transaction).

Transactions worth less than KRW 100 million were excluded according to Corporate Disclosure Guidelines.

### 3. Business transactions with affiliates and subsidiaries

In 2024, the Company had transactions (e.g., sales and purchases) with affiliates, including Samsung Semiconductor, Inc. (SSI).

(KRW mil)

Company	Relationship	Transaction type	Transaction date	Details	Amount
SSI	Affiliate	Sales, purchases, etc.	2024.01~2024.12	Semiconductor, etc.	43,946,256
SEA	Affiliate	Sales, purchases, etc.	2024.01~2024.12	Smartphone, consumer electronics, etc.	29,431,324
SSS	Affiliate	Sales, purchases, etc.	2024.01~2024.12	Semiconductor, etc.	28,414,204
SEVT	Affiliate	Sales, purchases, etc.	2024.01~2024.12	Smartphone, etc.	24,843,519
SEV	Affiliate	Sales, purchases, etc.	2024.01~2024.12	Smartphone, etc.	16,107,955
SCS	Affiliate	Sales, purchases, etc.	2024.01~2024.12	Semiconductor, etc.	11,485,734
SIEL	Affiliate	Sales, purchases, etc.	2024.01~2024.12	Smartphone, consumer electronics, etc.	9,629,072

Separate basis

Transactions worth 5% and above of revenue of the current business year are subject to public disclosure.

#### **4. Transactions with stakeholders other than affiliates and subsidiaries**

As of December 31, 2024, the Company's outstanding loan amount is KRW 135.3 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	Account title	Loans		
			Beginning of period (Jan 1, 2024)	Change	End of period (Dec 31, 2024)
Elentec Co., Ltd., etc.	Partner company and employee	Short-term loans	46,069	3,515	49,584
Daeduk Elec., etc.	Partner company and employee	Long-term loans	89,253	-3,558	85,695
Total			135,322	-43	135,279

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.

Samsung Electronics and its spun-off companies, including SDC, are liable to fulfill in solidarity the debts of SDC which relate to the periods prior to SDC's separation from the Company.

For information related to other contingent liabilities and commitments, see retained earnings in 『3. Notes to consolidated financial statements』 and 『5. Notes to non-consolidated financial statements』 in 『III. Financial Affairs』.

### B. Guarantees

Company	Relation	Creditor	Type	Purpose	Guarantee start date	Guarantee end date	Limit of guarantee		Transactions			Interest rate
							Period start	Period end	Period start	Change	Period end	
SEA	Affiliate	BOA, etc.	Payment guarantee	Operating fund	Apr 20, 2024	Nov 08, 2025	1,278,000	1,278,000	-	-	-	
SEM	Affiliate	BBVA, etc.	Payment guarantee	Operating fund	Mar 28, 2024	Dec 16, 2025	715,000	715,000	-	-	-	
SAMCOL	Affiliate	Citibank, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	210,000	210,000	-	-	-	
SEDA	Affiliate	BRADESCO, etc.	Payment guarantee	Operating fund	Oct 01, 2024	Dec 16, 2025	329,000	329,000	-	-	-	
SECH	Affiliate	Citibank, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	62,000	64,000	-	-	-	
SEPR	Affiliate	BBVA, etc.	Payment guarantee	Operating fund	Jun 01, 2024	Dec 16, 2025	150,000	150,000	-	-	-	
SSA	Affiliate	SCB, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	318,000	318,000	-	-	-	
SEMAG	Affiliate	SocGen, etc.	Payment guarantee	Operating fund	Nov 09, 2024	Dec 16, 2025	96,000	46,000	8,065	-8,065	-	
SETK	Affiliate	BNP, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	917,000	947,000	320,893	174,428	495,321	47.5%
SETK-P	Affiliate	BNP, etc.	Payment guarantee	Operating fund	Nov 09, 2024	Dec 16, 2025	70,000	70,000	-	-	-	
SECE	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	114,000	114,000	-	-	-	
SEEG	Affiliate	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	85,000	85,000	-	-	-	
SEIN	Affiliate	BNP, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Nov 08, 2025	70,000	70,000	-	-	-	
SJC	Affiliate	Mizuho Bank, etc.	Payment guarantee	Operating fund	Apr 28, 2024	Dec 16, 2025	835,508	808,270	-	-	-	
SEUC	Affiliate	Credit Agricole, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	125,000	125,000	-	-	-	
SEDAM	Affiliate	Citibank, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	537,000	537,000	-	-	-	
SECA	Affiliate	BOA	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	70,000	70,000	-	-	-	
SELA	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	60,000	60,000	-	-	-	

SEEH	Affiliate	HSBC, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	888,400	906,400	-	-	-	
SELV	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	10,000	10,000	-	-	-	
SEIL	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	15,600	15,600	-	-	-	
SAPL	Affiliate	BOA, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	404,000	404,000	-	-	-	
SAVINA	Affiliate	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	51,000	51,000	-	-	-	
SCIC	Affiliate	HSBC, etc.	Payment guarantee	Operating fund	Jun 14, 2024	Dec 16, 2025	270,000	270,000	-	-	-	
SESP	Affiliate	SCB	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	30,000	30,000	-	-	-	
SME	Affiliate	SCB	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	110,000	110,000	-	-	-	
SAMEX	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	5,000	5,000	-	-	-	
SEASA	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	2,000	2,000	-	-	-	
SSAP	Affiliate	SCB	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	35,000	35,000	-	-	-	
SEPM	Affiliate	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	35,000	35,000	-	-	-	
SESAR	Affiliate	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	20,000	20,000	-	-	-	
SEUZ	Affiliate	Citibank	Payment guarantee	Operating fund	Dec 17, 2024	Dec 16, 2025	10,000	10,000	-	-	-	

(USD thousand)

Company (relation)	Creditor	Type	Purpose	Guarantee start date	Guarantee expiry date	Limit of Guarantee		Transactions			Interest rate
						Period start	Period end	Period start	Change	Period end	
AdGear Technologies Inc. (affiliate)	BOA	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	2,000	2,000	-	-	-	
Harman International Industries, Inc. (affiliate)	JP Morgan	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	100,000	100,000	-	-	-	
Harman International Japan Co., Ltd. (affiliate)	MUFG	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	25,000	25,000	-	-	-	
Harman Holding Limited (affiliate)	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	30,000	30,000	-	-	-	
Harman do Brasil Industria Eletronica e Participacoes Ltda. (affiliate)	SocGen	Payment guarantee	Operating fund	Nov 09, 2024	Nov 08, 2025	15,000	15,000	-	-	-	
Harman da Amazonia Industria Eletronica e Participacoes Ltda. (affiliate)											
Harman International Industries Limited (affiliate)	HSBC	Payment guarantee	Operating fund	Jun 14, 2024	Jun 13, 2025	30,000	30,000	-	-	-	
SDN (affiliate)	SIEL	Payment guarantee	Operating fund, etc.	Feb 17, 2023	Nov 24, 2027	601,149	584,785	510,977	-13,910	497,067	8.36%
SAS (affiliate)	Epcor	Payment guarantee	Operating fund, etc	Apr 26, 2022	Debt expiry date	340,000	340,000	-	-	-	
SEA (affiliate)	US Government	Payment guarantee	Subsidy	Dec 20, 2024	Debt expiry date	-	6,435,000	-	-	-	
Total						9,070,657	15,462,055	839,935	152,453	992,388	

Consolidated basis.

Debt guarantees for SDN are provided by SDC, SAS by SEA.

SEC requires Board approval for individual guarantees exceeding 2.5% of total equity; the approval decision is delegated to the Management Committee when the guarantee amount is between 0.1% and/or less than 2.5%. SDC requires Board approval for individual guarantees over KRW 10,000 million.

In 2024, the Company claimed approximately USD 2,215,000 in guarantee fees, and as of the reporting date, has not collected the amount.

In 2024, Samsung Display Co., Ltd. claimed approximately USD 2,982,000 in guarantee fees to SDN, and as of the reporting date, has not collected the amount.

SEA's debt to the U.S. Government refers to a guarantee agreement by the parent company, under which it is obligated to repay semiconductor subsidies to the U.S. Department of Commerce if SAS fails to fulfill its contractual obligations.

### 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
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
Feb 9, 2023	Gwangju District Court	SEC and Employees of SEC	Fine	25	-	Article 10 Paragraph 1 of the former Occupational Safety and Health Act, Article 57 Paragraph 1 of the Occupational Safety and Health Act, etc.

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.

On February 9, 2023, the Gwangju District Court issued a summary order against SEC and five SEC employees for violations of Article 10 Paragraph 1 of the former Occupational Safety, Health Act, Article 57 Paragraph 1 of the Occupational Safety and Health Act, etc. Neither the Company nor the five employees applied for a formal trial, thus resulting in the confirmation of the summary order (with fine of KRW 15 million for SEC and KRW 2 million for each employee), and the Company has subsequently paid the fine. As part of SEC's efforts to prevent recurrence of such issues, the Company has provided special education for Environmental Safety Managers and Supervisors to ensure compliance with the relevant regulations.

#### 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
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
Mar 17, 2022	FTC	Employee 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
Apr 7,	FTC	SEC	Corrective measure	-	Article 10 (Prohibition on Interference with Management

2024					Activities) Paragraph 1 of the Fair Agency Transactions Act
Dec 13, 2024	FTC	Mirero System	Fine	0.8	Article 133 (Disclosure of Payment Conditions of Subcontract Payment) Paragraph 3 of the Fair Transactions in subcontracting Act

On June 22, 2021, the Fair Trade Commission, regarding matters related to food service transactions with Samsung Welstory, filed a complaint against SEC and the former Head of Future Strategy Office (Gee-sung Choi; retired) 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.

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.

On April 7, 2024, the Fair Trade Commission issued a corrective order against the Company for violating Article 10 (Prohibition on Interference with Management Activities) Paragraph 1 of the Fair Agency Transactions Act and Article 7 Subparagraph 2 (Requesting an agency to provide information that constitutes business secrets) of the Enforcement Decree of the same Act.

On December 13, 2024, the Fair Trade Commission ordered the subsidiary Mirero System to pay a fine of KRW 0.8 million for violating Article 133 (Disclosure of Payment Conditions of Subcontract Payment) Paragraph 3 of the Fair Transactions in subcontracting Act.

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
Apr 21, 2022	Ministry of Employment and Labor	SEC (Onyang site)	Fine	0.6	Article 46 Paragraph 1 of the Occupational Safety And Health Act etc.
Oct 13, 2022	City of Gwangju	SEC (Gwangju site)	Fine	3.2	Article 39 Paragraph 1 of the Clean Air Conservation Act
Dec 14, 2022	Ministry of Environment	SEC (Overall domestic operations)	Fine	2.0	Article 17 Paragraph 2 of the Act on the Allocation and Trading of Greenhouse-gas Emission Permits
Dec 22,	Ministry of Environment	SEC	Fine	1.6	Article 31 Paragraph 1 Subparagraph 1 of the

2022		(Gwangju site)			Clean Air Conservation
Dec 23, 2022	Ministry of Employment and Labor	SEC (Gwangju site)	Fine	0.08	Article 37 Paragraph 1 of the Occupational Safety And Health Act
Jan 16, 2023	Ministry of Employment and Labor	SEC (Gwangju site)	Fine	0.16	Article 37 Paragraph 1, Article 115 Paragraph 2 of the Occupational Safety And Health Act
Aug 16, 2023	Gumi Fire Station	SEC (Gumi site)	Fine	-	Article 5 Paragraph 1, Article 6 Paragraph 1 of the Safety Control Of Hazardous Substances Act
Aug 18, 2023	Personal Information Protection Commission	SEC	Penalty	875.6	Article 29 of the Personal Information Protection Act and Article 48-2 Paragraph 1 Subparagraph 2 of the Enforcement Decree of the same Act
			Fine	2.4	
Aug 23, 2023	City of Gwangju	SEC (Gwangju site)	Fine	2.0	Article 31 Paragraph 2 of the Clean Air Conservation Act
Sep 4, 2023	Ministry of Trade, Industry and Energy	Subsidiary (Samsung Medison)	Order to Take Training Course (2 persons)	-	Article 19, Article 31, Article 49 of the Foreign Trade Act
Oct 22, 2024	Ministry of Employment and Labor	SEC (Giheung site)	Fine	30	Article 54 (Measures by Business Owners in Cases of Serious Accidents) Paragraph 2 of the Occupational Safety and Health Act
Oct 29, 2024	Nuclear Safety and Security Commission	SEC (Giheung site)	Fine	16.5	Article 91 (Measures to Prevent Radiation Damage) Paragraph 4 of the Nuclear Safety Act
Nov 26, 2024	Ministry of Employment and Labor	SEC (Giheung, Hwaseong site)	Fine	68	Article 16 (Supervisors) Paragraph 1 and Article 57 (Prohibition on Concealing Occurrence of Industrial Accidents and Reporting Thereof) Paragraph 3 of the Occupational Safety and Health Act
Dec 16, 2024	Geumgang River Basin Environmental Office	SEC (Cheonan site)	Fine	6	Article 31 (Reporting on Awarding of Contracts for Handling Hazardous Chemical Substances) Paragraph 1 of the Chemical Substances Control Act

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.

On July 7, 2022, the Gwangju District Court ruled that two employees of the Company had violated Article 18, etc., of the Environmental Testing and Inspection Act, and on October 13, 2022, the City of Gwangju levied a fine of KRW 3.2 million for violating Article 39 (Self-Measurement) Paragraph 1 of the Clean Air Conservation Act concerning the record of the results of self-measurement of air pollutants, and the Company subsequently paid the fine.

To enhance credibility of measurements, the Company conducts regular cross measurements, etc.

Pursuant to the results of the inspection of the air pollution prevention facilities on the Gwangju site by the Ministry of Environment on November 28–29, 2022, the Company was ordered to pay a fine of KRW 1.6 million for violating Article 31 (Operation of Emission Facilities and Prevention Facilities) Paragraph 1 of the Clean Air Conservation Act on December 22, 2022, and it has subsequently paid the fine.

To prevent the recurrence and strengthen compliance, the Company has strengthened inspection of the air pollution prevention facilities.

On December 14, 2022, the Ministry of Environment ordered the Company to pay a fine of KRW 2 million for violating Article 17 (Revocation of Allocation of Emission Permits) Paragraph 2 of the Act on the Allocation and Trading of Greenhouse-gas Emission Permits, and the Company has subsequently paid the fine. To prevent the recurrence and strengthen compliance, the Company has strengthened management of greenhouse-gas emitting facilities.

Pursuant to the results of the inspection of the Occupational Safety and Health Management on the Gwangju site by the Ministry of Employment and Labor on December 19–21, 2022, the Company was ordered to pay a fine of KRW 80 thousand for violating Article 37 (Installation and Affixing of Safety and Health Signs) Paragraph 1 of the Occupational Safety and Health Act on December 23, 2022, and it has subsequently paid the fine. Also, pursuant to the results of the inspection of the Occupational Safety and Health Management on the Gwangju site by the Ministry of Employment and Labor on January 9–11, 2023, the Company was ordered to pay a fine of KRW 160,000 for violating Article 115 (Warnings on Containers of Substances Subject to Material Safety Data Preparation) Paragraph 1 and Article 37 (Installation and Affixing of Safety and Health Signs) Paragraph 1 of the Occupational Safety and Health Act on January 16, 2023, and it has subsequently paid the fine. To prevent the recurrence and strengthen compliance, the Company has strengthened monitoring of the installation and affixing of safety signs.

On August 16, 2023, the Gumi Fire Station ordered the Company to take corrective measures for violating Article 5 (Restrictions on Storage and Handling of Hazardous Substances) Paragraph 1 and Article 6 (Construction of Facilities for Hazardous Substances and Alteration Thereof) Paragraph 1 of the Safety Control Of Hazardous Substances Act at its Gumi site, and the Company subsequently completed corrective measures by applying for permission of constructing hazardous substance handling place. To prevent the recurrence and strengthen compliance, the Company has strengthened permit management regarding hazardous substance handling place.

On August 18, 2023, Personal Information Protection Commission ordered the Company to take corrective measures along with orders to pay a penalty of KRW 875.6 million and a fine of KRW 2.4 million for violating Article 29 (Duty of Safeguards) of the Personal Information Protection Act and Article 48-2 (Special Measures to Ensure Safety of Personal Information) Paragraph 1 Subparagraph 2 of the Enforcement Decree of the same Act, and it has subsequently paid the fine. To prevent the recurrence and strengthen compliance, the Company has strengthened education and security-related contracts with our system operation partners.

On August 23, 2023, City of Gwangju issued an administrative disposition (warning) and ordered the Company to pay a fine of KRW 2 million for violating Article 31 (Operation of Emission Facilities and Prevention Facilities) Paragraph 2 of the Clean Air Conservation at its Gwnagju site, and it has subsequently paid the fine. To prevent the recurrence and strengthen compliance, the Company has strengthened computer input management process regarding operating status of emission and prevention facilities.

Regarding the radiation exposure incident that occurred at the Giheung site on May 27, 2024, the Gyeonggi Regional Office of the Ministry of Employment and Labor ordered the Company to pay a fine of KRW 30 million for violating Article 54 (Measures by Business Owners in Cases of Serious Accidents) Paragraph 2 of the Occupational Safety and Health Act on October 22. 2024. However, the Company submitted an objection letter on December 17, 2024, to receive legal judgment on the applicability of the reporting obligation stipulated in the above law, and a legal proceeding (fine trial) is currently underway. In addition, following a special inspection by the Nuclear Safety and Security Commission conducted July 8–10, the Company was ordered to pay a fine of KRW 16.5 million for violating Article 91 (Measures to Prevent Radiation Damage) Paragraph 4 of the Nuclear Safety Act on October 29, 2024, and it has subsequently paid the fine. Furthermore, as a result of a general inspection by the Ministry of Employment and Labor conducted at the Giheung site from November 4 to November 15, 2024, a fine of KRW 61 million was imposed on November 26, 2024 for violating Article 16 (Supervisors) Paragraph 1 of the Occupational Safety and Health Act, and at the Hwaseong site, a fine of KRW 7 billion was imposed for violating the Article 57 (Prohibition on Concealing Occurrence of Industrial Accidents and Reporting Thereof) Paragraph 3 of the Occupational Safety and Health Act. The Company subsequently paid the fine.

The Company has been submitting improvement results to both the Ministry of Employment and Labor and the Nuclear Safety and Security Commission after taking appropriate measures for the violations, and are establishing the regular-basis

radiation safety management system under our safety and health organization, which includes training radiation safety managers, maintenance by specialized radiation service companies, and distributing electronic dosimeters, and improving the process for submitting industrial accident investigation reports to ensure a safe workplace.

Regarding the potassium hydroxide contact incident occurred at the Cheonan site on September 19, 2024, the Company was ordered to pay a fine of KRW 6 million for violating Article 31 (Reporting on Awarding of Contracts for Handling Hazardous Chemical Substances) Paragraph 1 of the Chemical Substances Control Act, and it has subsequently paid the fine. To prevent recurrence, the Company is making efforts to comply with relevant laws and regulations by submitting comprehensive subcontracting report of manufacturing facility installation and maintenance companies.

Samsung Medison without prior approval exported certain items subject to conditional permission by the Ministry of Trade, Industry and Energy. Accordingly, Samsung Medison on September 4, 2023, received an administrative disposition of a training course requirement (2 persons) from the Ministry of Trade, Industry and Energy for violating Article 19 (Public Notice of Strategic Items and Export Permission Therefor), etc., of the Foreign Trade Act, and the training course provided by the Ministry of Trade, Industry and Energy on was completed on November 7, 2023. To prevent the recurrence and strengthen compliance, Samsung Medison has enhanced educational activities for personnel responsible for strategic item management and improved internal process.

### C. Sanctions from Korea Exchange

N/A

### D. Return of short-swing profits

N/A

## 4. Subsequent events and other matters

### A. A. Subsequent events

- N/A

### B. External contributions

Contribution	Amount	Details	Date of Board approval
Management plans for Social Contribution Fund for 2022	KRW 11.75 billion	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 Board resolution
Donation to Chung-nam Samsung Institute	KRW 2.324 billion	The contribution was made to improve education of the region.	
Donation to Samsung Welfare Foundation, etc.	KRW 46.8 billion	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 Board resolution

Performance incentive to suppliers of the DS division	Approx. KRW 74.0 billion	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 the Inter-University Semiconductor Research Center of Seoul National University to help cover operating costs	KRW 5 billion	Support of operating costs for education infrastructure and employment of research talents for the Inter-University Semiconductor Research Center of Seoul National University	Jul 28, 2022 Board resolution
Contribution for support related to the tragedy in Itaewon and to strengthen the public safety system	KRW 4 billion	The contribution of KRW 4 billion in cash was made to Hope Bridge Korea Disaster Relief Association to offer assistance related to the tragedy in Itaewon and strengthen the public safety system.	Nov 3, 2022 Board resolution
Donation to Heemang 2023 Nanum Campaign	KRW 18.37 billion	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 7,188,329 (approx. KRW 9.57 billion)	The contribution was made to the UNDP (United Nations Development Programme) for relief activities in different countries.	Nov 30, 2022 Board resolution

Contribution	Amount	Details	Date of Board approval
Sponsorship of the Worldskills Competition	EUR 1.65 million (approx. KRW 2.25 billion)	Sponsorship supporting the 47th WorldSkills Competition that will take place in Lyon, France, and WorldSkills International	Nov 30, 2022 Board resolution
Management plans for Social Contribution Fund for 2023	KRW 12.34 billion	The fund consists of voluntary contributions of employees and matching funds raised by SEC. SEC plans to contribute KRW 12.34 billion in matching funds in 2023  The contribution will be used for educating adolescents and vulnerable members of the population	Feb 14, 2023 Board resolution
Donation to Chung-nam Samsung Institute	KRW 2.378 billion	The contribution was made to improve education of the region	
Promotion of supporting a smart factory project	KRW 22.4 billion	The contribution was made to enhance domestic manufacturing competitiveness and promote balanced development of regions by supporting a smart factory project	April 27, 2023 Board resolution
Incentives for Excellent Partners in the DS Division	KRW 80.1 billion	The incentive was provided to prevent safety incidents at sites, enhance productivity, and promote co-growth with suppliers  Incentive targets first and secondary suppliers of the DS division stationed at the sites	
Donation to Samsung Welfare Foundation, etc.	KRW 32.83 billion	The contribution was made to support the construction expenses for the renovation of Samsung Medical Center (Samsung Life Public Welfare Foundation; KRW 17.19 billion)  The contribution was made to provide funds for legal expenses for faculty members and Samsung scholarships for students (Sungkyunkwan University; KRW 12.24 billion)  The contribution was made to be used for the awards in connection with the presentation of the Samsung Ho-Am Prize in the following six fields—physics/mathematics, chemistry/biology, engineering, medicine, art, and volunteering (Ho-Am Foundation; KRW 3.4 billion)	Jul 27, 2023 Board resolution
Donation to Heemang 2024 Nanum Campaign	KRW 8.65 billion	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 4,366,270 (approximately KRW 5.68 billion)	The contribution was made to the UNDP (United Nations Development Programme) for relief activities in different countries.	Nov 30, 2023 Board resolution

Management plans for Social Contribution Fund for 2024	KRW 12.27 billion	The fund consists of voluntary contributions of employees and matching funds raised by SEC. SEC plans to contribute KRW 12.27 billion in matching funds in 2024  The contribution will be used for educating adolescents and vulnerable members of the population	Feb 20, 2024 Board resolution
Donation to Chung-nam Samsung Institute	KRW 2.469 billion	The contribution was made to improve education of the region	
Donation to Social Contribution	KRW 35.73 billion	The contribution was made to support the construction expenses for the renovation of Samsung Medical Center (Samsung Life Public Welfare Foundation, KRW 20 billion)  The contribution was made to provide funds for Samsung scholarships for students and legal expenses for faculty members (Sungkyunkwan University, KRW 12.32 billion)  The contribution was made to be used for the awards in connection with the presentation of the Samsung Ho-Am Prize in the following six fields—physics/mathematics, chemistry/biology, engineering, medicine, art, and volunteering (Ho-Am Foundation; KRW 3.41 billion)	Jul 31, 2024 Board resolution
Incentives for Excellent Partners in the DS Division	KRW 22.4 billion	The incentive was provided to prevent safety incidents at sites, enhance productivity, and promote co-growth with suppliers  Incentive targets first and secondary suppliers of the DS division stationed at the sites	Oct 31, 2024 Board resolution
Donation to Heemang 2025 Nanum Campaign	KRW 8.53 billion	The contribution was made to Community Chest of Korea to fulfill corporate social responsibilities and help the marginalized	Nov 29, 2024 Board resolution
Contribution to the United Nations Development Programme (Samsung Global Goals)	USD 2,939,972 (approximately KRW 4.11 billion)	The contribution was made to the UNDP (United Nations Development Programme) for relief activities in different countries.	

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 December 31, 2024 (on a separate basis), our business sites in Suwon, Gumi, Giheung, Hwaseong, Pyeongtaek, Onyang, and Cheonan 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.

### Green Technology Certification

The Company acquired Certification of Green Technology in accordance with Article 60 (Standardization and Certification of Green Technology and Green Industries) Paragraph 1 of the Framework Act on Carbon Neutrality and Green Growth for Coping with Climate Crisis. Since 2010, the year when the certification first began, we have consistently explored green technologies and obtained certifications. We hold valid certifications for 7 green technologies as of the end of December 31, 2024, and we have also acquired certification of “Confirmation of Green Technology Product” for 125 green-technology-applied models.

Certified Green Technologies as of December 31, 2024, are as follows:

Certification number	Description/purpose	Certification date	Expiration date
GT-24-02123	Washable electrostatic precipitator filter technology for air purification using a hybrid charge method	Oct 24, 2024	Oct 23, 2027
GT-21-01248	Power-saving technology for reducing standby power consumption of laptops using high-efficiency power conversion technology	Oct 14, 2021	Oct 13, 2027
GT-23-01728	Activating low-load operation catalyst for high-efficiency operation of heat pumps integrated with emission reduction devices	Jul 27, 2023	Jul 26, 2026
GT-20-00880	Improving energy efficiency in clothes dryers by incorporating high-efficiency heat pumps and heat exchangers	May 21, 2020	May 20, 2026
GT-20-00826	Ceiling-mounted wind-free air conditioners with micro air holes	Jan 30, 2020	Jan 29, 2026
GT-22-01562	Energy-saving dehumidification technology using dew point temperature	Nov 24, 2022	Nov 23, 2025
GT-19-00664	Power-saving technology for reducing standby power consumption of monitors that have Self Wake-Up function	May 16, 2019	May 15, 2025

Separate basis.

#### (Greenhouse gas emission and energy consumption management)

According to Article 27 (Greenhouse Gas Target Control of Controlled Emitter) of the Framework Act on Carbon Neutrality and Green Growth for Coping with Climate Crisis, the Company falls under the category of “controlled emitter,” which is an entity designated for greenhouse gas target management. Therefore, in accordance with Article 27 (3) of the above mentioned Act and Article 24 (Reporting and Verification of Amounts of Emissions) of the Act on the Allocation and Trading of Greenhouse-gas Emission Permits, the Company’s greenhouse gas emissions and energy usage, verified by a third-party, have been reported since May 2011 to the relevant authorities and opened to stakeholders.

The reported amount of greenhouse gas emission and energy use on a separate basis are provided below:

	2024	2023	2022	(tCO <sub>2</sub> -eq, TJ)
Greenhouse gas (tCO <sub>2</sub> -eq)	13,962,940	13,292,087	14,925,633	
Energy (TJ)	264,060	240,882	222,875	

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.

#### D. Certification as health-friendly company

The Company operates various medical facilities—including an in-house clinic, physiotherapy room, musculoskeletal disorder prevention center, and mental health clinic—to promote employee health, and through health promotion programs, the Company helps employees care for their own health. In recognition of our efforts, the DS Division was certified as a health-friendly company by the Minister of Health and Welfare on December 7, 2022, pursuant to Article 6-2 Paragraph 1 of the National Health Promotion Act (Validity period: December 7, 2022–December 6, 2025), and the DX Division was certified on December 1, 2024 (Validity period: December 1, 2024–November 30, 2027).

## XII Appendix

### **1. Subsidiaries subject to consolidated financial statements (detailed)**

As of December 31, 2024, Samsung Electronics' consolidated subsidiaries numbered 228 with the addition of 6 subsidiary and reduction of 10 subsidiaries when compared to totals as of December 31, 2023. Below is the list of consolidated subsidiaries.

Subsidiary	Date established	Major business	Assets as of Dec 31, 2024	Ownership	Classified as major subsidiary (Y/N)
Samsung Electronics America, Inc. (SEA)	Jul 1978	Electronic goods sales	50,777,503	Over 50%	Y
Samsung International, Inc. (SII)	Oct 1983	Electronic goods production	2,300,160	Over 50%	Y
Samsung Mexicana S.A. de C.V (SAMEX)	Mar 1988	Electronic goods production	186,818	Over 50%	Y
Samsung Electronics Home Appliances America, LLC (SEHA)	Aug 2017	Home appliance production	456,802	Over 50%	Y
Samsung Research America, Inc (SRA)	Oct 1988	R&D	1,323,357	Over 50%	Y
SAMSUNG NEXT LLC (SNX)	Aug 2016	Subsidiary management (overseas)	441,037	Over 50%	Y
SAMSUNG NEXT FUND LLC (SNXF)	Aug 2016	Tech/emerging-tech venture firm investments	516,941	Over 50%	Y
NeuroLogica Corp.	Feb 2004	Medical device production and sales	299,073	Over 50%	Y
Samsung HVAC America, LLC	Jul 2001	Air conditioner sales	160,981	Over 50%	Y
Joyent, Inc.	Mar 2005	Cloud services	240,091	Over 50%	Y
SmartThings, Inc.	Apr 2012	Smart home platform	253,933	Over 50%	Y
TeleWorld Solutions, Inc. (TWS)	May 2002	Network equipment installation and optimization	31,814	Over 50%	N
Samsung Semiconductor, Inc. (SSI)	Jul 1983	Semiconductor and display panel sales	21,719,875	Over 50%	Y
Samsung Federal, Inc. (SFI)	May 2023	R&D	711	Over 50%	N
Samsung Austin Semiconductor LLC. (SAS)	Feb 1996	Semiconductor production	27,546,958	Over 50%	Y
Samsung Oak Holdings, Inc. (SHI)	Jun 2016	Subsidiary management (overseas)	715,483	Over 50%	Y
SEMES America, Inc.	Oct 1998	Semiconductor equipment services	3,756	Over 50%	N
Samsung Display America Holdings, Inc. (SDAH)	May 2023	Subsidiary management (overseas)	369,646	Over 50%	Y
eMagin Corporation	May 2023	Display panel development and production	427,847	Over 50%	Y
Samsung Electronics Canada, Inc. (SECA)	Jul 1980	Electronic goods sales	1,231,281	Over 50%	Y
AdGear Technologies Inc.	Aug 2010	Digital advertising platform	214,087	Over 50%	Y
Sonio Corporation	Jul 2022	Medical device production and sales	907	Over 50%	N
Samsung Eletronica da Amazonia Ltda. (SEDA)	Jan 1995	Electronic goods production and sales	4,679,383	Over 50%	Y
Samsung Electronics Mexico S.A. De C.V. (SEM)	Jul 1995	Electronic goods sales	2,017,910	Over 50%	Y

Subsidiary	Date established	Major business	Assets as of Dec 31, 2024	Ownership	Classified as major subsidiary (Y/N)
Samsung Electronics Digital Appliance Mexico, SA de CV (SEDAM)	Dec 2012	Home appliance production	1,191,399	Over 50%	Y
Samsung Electronics Latinoamerica (Zona Libre), S. A. (SELA)	Apr 1989	Electronic goods sales	828,128	Over 50%	Y
Samsung Electronics Latinoamerica Miami, Inc. (SEMI)	May 1995	Electronic goods sales	642,574	Over 50%	Y
Samsung Electronica Colombia S.A. (SAMCOL)	Mar 1997	Electronic goods sales	502,143	Over 50%	Y
Samsung Electronics Argentina S.A. (SEASA)	Jun 1996	Marketing and services	136,040	Over 50%	Y
Samsung Electronics Chile Limitada (SECH)	Dec 2002	Electronic goods sales	557,617	Over 50%	Y
Samsung Electronics Peru S.A.C. (SEPR)	Apr 2010	Electronic goods sales	365,721	Over 50%	Y
Samsung Electronics Venezuela, C.A. (SEVEN)	May 2010	Marketing and services	2,020	Over 50%	N
Samsung Electronics Panama. S.A. (SEPA)	Jul 2012	Consulting	4,276	Over 50%	N
Harman International Industries, Inc.	Jan 1980	Subsidiary management (overseas)	19,196,633	Over 50%	Y
Harman Becker Automotive Systems, Inc.	Jun 1981	Audio product production, sales, and R&D	3,781,619	Over 50%	Y
Harman Connected Services, Inc.	Feb 2002	Connected Service Provider	2,566,274	Over 50%	Y
Harman Connected Services Engineering Corp.	Sep 2004	Connected Service Provider	-	Over 50%	N
Harman da Amazonia Industria Eletronica e Participacoes Ltda.	Jul 2005	Audio product production and sales	265,514	Over 50%	Y
Harman de Mexico, S. de R.L. de C.V.	Feb 1997	Audio product production	326,532	Over 50%	Y
Harman do Brasil Industria Eletronica e Participacoes Ltda.	Nov 1958	Audio product sales and R&D	408,017	Over 50%	Y
Harman International Industries Canada Ltd.	May 2005	Audio product sales	79	Over 50%	N
Harman International Mexico, S. de R.L. de C.V.	Dec 2014	Audio product sales	37,326	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	965,038	Over 50%	Y
Roon Labs, LLC.	Nov 2023	Audio product sales	74,651	Over 50%	N
Beijing Integrated Circuit Industry International Fund, L.P	Dec 2014	Venture firm investments	26,696	Over 50%	N
China Materialia New Materials 2016 Limited Partnership	Sep 2017	Venture firm investments	9,176	Over 50%	N
Samsung Electronics (UK) Ltd. (SEUK)	Jul 1995	Electronic goods sales	3,267,763	Over 50%	Y
Samsung Electronics Ltd. (SEL)	Jan 1999	Subsidiary management (overseas)	8,099	Over 50%	N
Samsung Semiconductor Europe Limited (SSEL)	Apr 1997	Semiconductor and display panel sales	130,074	Over 50%	Y
Samsung Electronics GmbH (SEG)	Dec 1984	Electronic goods sales	2,118,638	Over 50%	Y
Samsung Electronics Holding GmbH (SEHG)	Feb 1982	Subsidiary management (overseas)	623,788	Over 50%	Y
Samsung Semiconductor Europe GmbH (SSEG)	Dec 1987	Semiconductor and display panel sales	1,237,224	Over 50%	Y
Samsung Electronics France S.A.S (SEF)	Jan 1988	Electronic goods sales	1,311,394	Over 50%	Y

Subsidiary	Date established	Major business	Assets as of Dec 31, 2024	Ownership	Classified as major subsidiary (Y/N)
Samsung Electronics Italia S.P.A. (SEI)	Apr 1991	Electronic goods sales	1,087,941	Over 50%	Y
Samsung Electronics Iberia, S.A. (SESA)	Jan 1989	Electronic goods sales	1,261,660	Over 50%	Y
Samsung Electronics Portuguesa, Unipessoal, Lda. (SEP)	Sep 1982	Electronic goods sales	320,920	Over 50%	Y
Samsung Electronics Hungarian Private Co. Ltd. (SEH)	Oct 1989	Electronic goods production and sales	1,636,153	Over 50%	Y
Samsung Electronics Europe Logistics B.V. (SELS)	May 1991	Logistics	1,928,760	Over 50%	Y
Samsung Electronics Benelux B.V. (SEBN)	Jul 1995	Electronic goods sales	1,894,968	Over 50%	Y
Samsung Electronics Europe Holding Cooperatief U.A. (SEEH)	Oct 2008	Subsidiary management (overseas)	9,093,393	Over 50%	Y
Samsung Electronics Nordic Aktiebolag (SENA)	Mar 1992	Electronic goods sales	699,271	Over 50%	Y
Samsung Electronics Slovakia s.r.o (SESK)	Jun 2002	TV and monitor production	1,196,202	Over 50%	Y
Samsung Electronics Polska, SP.Zo.o (SEPOL)	Apr 1996	Electronic goods sales	1,011,196	Over 50%	Y
Samsung Electronics Poland Manufacturing SP.Zo.o (SEPM)	Feb 2010	Home appliance production	918,199	Over 50%	Y
Samsung Electronics Romania LLC (SEROM)	Sep 2007	Electronic goods sales	442,713	Over 50%	Y
Samsung Electronics Austria GmbH (SEAG)	Jan 2002	Electronic goods sales	609,920	Over 50%	Y
Samsung Electronics Switzerland GmbH (SESG)	May 2013	Electronic goods sales	305,710	Over 50%	Y
Samsung Electronics Czech and Slovak s.r.o. (SECZ)	Jan 2010	Electronic goods sales	430,936	Over 50%	Y
SAMSUNG ELECTRONICS BALTICS SIA (SEB)	Oct 2001	Electronic goods sales	134,248	Over 50%	Y
Samsung Electronics Greece S.M.S.A (SEGR)	Apr 2010	Electronic goods sales	168,112	Over 50%	Y
Samsung Electronics Air Conditioner Europe B.V. (SEACE)	Apr 2017	Air conditioner sales	287,625	Over 50%	Y
Samsung Nanoradio Design Center (SNDC)	Feb 2004	R&D	29,597	Over 50%	N
Samsung Denmark Research Center ApS (SDRC)	Sep 2012	R&D	31,120	Over 50%	N
Samsung Cambridge Solution Centre Limited (SCSC)	Sep 2012	R&D	210,465	Over 50%	Y
Samsung Zhilabs, S.L.	Nov 2008	Network solution R&D and sales	16,933	Over 50%	N
FOODIENT LTD.	Mar 2012	R&D	11,191	Over 50%	N
Oxford Semantic Technologies Limited (OST)	Dec 2016	R&D	37,350	Over 50%	N
Sonio SAS	Apr 2020	R&D	23,128	Over 50%	N
Samsung Electronics Rus Company LLC (SERC)	Oct 2006	Electronic goods sales	763,783	Over 50%	Y
Samsung Electronics Rus Kaluga LLC (SERK)	Jul 2007	TV production	1,004,032	Over 50%	Y
Samsung Electronics Ukraine Company LLC (SEUC)	Sep 2008	Electronic goods sales	441,458	Over 50%	Y
Samsung R&D Institute Ukraine (SRUKR)	Feb 2022	R&D	13,766	Over 50%	N
Samsung Electronics Central Eurasia LLP (SECE)	Sep 2008	Electronic goods sales	426,940	Over 50%	Y

Subsidiary	Date established	Major business	Assets as of Dec 31, 2024	Ownership	Classified as major subsidiary (Y/N)
Samsung R&D Institute Rus LLC (SRR)	Nov 2011	R&D	56,286	Over 50%	N
Samsung Electronics Caucasus Co. Ltd (SECC)	Oct 2014	Marketing	4,172	Over 50%	N
Samsung Electronics Uzbekistan FC LLC. (SEUZ)	Mar 2022	Marketing	165,622	Over 50%	Y
AKG Acoustics GmbH	Mar 1947	Audio product production and sales	406,261	Over 50%	Y
Apostera UA, LLC	Oct 2020	Connected Service Provider	1,697	Over 50%	N
Harman Audio Iberia Espana Sociedad Limitada	Nov 2012	Audio product sales	2,444	Over 50%	N
Harman Becker Automotive Systems GmbH	Jul 1990	Audio product production, sales, and R&D	4,318,082	Over 50%	Y
Harman Becker Automotive Systems Italy S.R.L.	Dec 2005	Audio product sales	896	Over 50%	N
Harman Becker Automotive Systems Manufacturing Kft	Aug 1994	Audio product R&D and production	3,452,860	Over 50%	Y
Harman Belgium SA	Apr 1967	Audio product sales	3,688	Over 50%	N
Harman Connected Services AB.	Oct 1984	Connected Service Provider	7,897	Over 50%	N
Harman Finland Oy	Jul 1998	Connected Service Provider	313	Over 50%	N
Harman Connected Services GmbH	Dec 2005	Connected Service Provider	62,154	Over 50%	N
Harman Connected Services Poland Sp.zoo	Jun 2007	Connected Service Provider	17,946	Over 50%	N
Harman Connected Services UK Ltd.	Sep 2008	Connected Service Provider	58,724	Over 50%	N
Harman Consumer Nederland B.V.	Dec 1995	Audio product sales	563,023	Over 50%	Y
Harman Deutschland GmbH	Mar 1998	Audio product sales	11,315	Over 50%	N
Harman France SNC	Nov 1995	Audio product sales	9,622	Over 50%	N
Harman Holding GmbH & Co. KG	Jun 2002	Management Company	6,701,536	Over 50%	Y
Harman Hungary Financing Ltd.	Jun 2012	Financing Company	44,368	Over 50%	N
Harman Inc. & Co. KG	Jun 2012	Subsidiary management (overseas)	5,267,083	Over 50%	Y
Harman International Estonia OU	May 2015	R&D	10	Over 50%	N
Harman International Industries Limited	Mar 1980	Audio product sales and R&D	80,938	Over 50%	Y
Harman International Romania SRL	Feb 2015	R&D	11,671	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	75,201	Over 50%	N
Harman Professional Denmark ApS	Jul 1987	Audio product sales and R&D	72,136	Over 50%	N
Red Bend Software SAS	Oct 2002	Software design	9,791	Over 50%	N
Studer Professional Audio GmbH	Nov 2003	Audio product sales and R&D	480	Over 50%	N
Harman Connected Services OOO	Nov 1998	Connected Service Provider	27,543	Over 50%	N

Subsidiary	Date established	Major business	Assets as of Dec 31, 2024	Ownership	Classified as major subsidiary (Y/N)
Harman RUS CIS LLC	Aug 2011	Audio product sales	36,823	Over 50%	N
Samsung Gulf Electronics Co., Ltd. (SGE)	May 1995	Electronic goods sales	1,226,902	Over 50%	Y
Samsung Electronics Turkiye (SETK)	Dec 1984	Electronic goods sales	1,696,116	Over 50%	Y
Samsung Electronics Industry and Commerce Ltd. (SETK-P)	Feb 2021	Electronic goods production	169,865	Over 50%	Y
Samsung Electronics Levant Co.,Ltd. (SELV)	Jul 2009	Electronic goods sales	534,861	Over 50%	Y
Samsung Electronics Maghreb Arab (SEMAG)	Nov 2009	Electronic goods sales	303,826	Over 50%	Y
Samsung Electronics Egypt S.A.E (SEEG)	Jul 2012	Electronic goods production and sales	1,110,704	Over 50%	Y
Samsung Electronics Israel Ltd. (SEIL)	Sep 2012	Marketing	20,651	Over 50%	N
Samsung Electronics Tunisia S.A.R.L (SETN)	Sep 2012	Marketing	6,004	Over 50%	N
Samsung Electronics Pakistan(Private) Ltd. (SEPAK)	Nov 2012	Marketing	5,216	Over 50%	N
Samsung Electronics Middle east and North Africa One Person (SEMENA)	May 2024	Subsidiary management (overseas)	1,783	Over 50%	N
Samsung Electronics Saudi Arabia Ltd. (SESAR)	Nov 2019	Electronic goods sales	546,555	Over 50%	Y
Samsung Semiconductor Israel R&D Center, Ltd. (SIRC)	Oct 2007	R&D	202,194	Over 50%	Y
Corephotonics Ltd.	Jan 2012	R&D	129,525	Over 50%	Y
Samsung Electronics South Africa(Pty) Ltd. (SSA)	Jun 1994	Electronic goods sales	565,625	Over 50%	Y
Samsung Electronics South Africa Production (pty) Ltd. (SSAP)	Jul 2014	TV and monitor production	91,418	Over 50%	Y
Samsung Electronics West Africa Ltd. (SEWA)	Mar 2010	Marketing	28,038	Over 50%	N
Samsung Electronics East Africa Ltd. (SEEA)	Dec 2011	Marketing	21,412	Over 50%	N
Global Symphony Technology Group Private Ltd.	Jan 2002	Subsidiary management (overseas)	57,325	Over 50%	N
Harman Connected Services Morocco	Apr 2012	Connected Service Provider	74	Over 50%	N
Harman Industries Holdings Mauritius Ltd.	Oct 2009	Subsidiary management (overseas)	108,488	Over 50%	Y
Red Bend Ltd.	Feb 1998	Audio product production	133,107	Over 50%	Y
Samsung Asia Pte. Ltd. (SAPL)	Jul 2006	Subsidiary management (overseas)	31,226,978	Over 50%	Y
Samsung Electronics Singapore Pte. Ltd. (SESP)	Oct 2020	Electronic goods sales	808,908	Over 50%	Y
Samsung Malaysia Electronics (SME) Sdn. Bhd. (SME)	May 2003	Electronic goods sales	712,846	Over 50%	Y
Samsung Electronics Display (M) Sdn. Bhd. (SDMA)	Mar 1995	Electronic goods production	31,018	Over 50%	N
Samsung Electronics (M) Sdn. Bhd. (SEMA)	Sep 1989	Home appliance production	247,849	Over 50%	Y
Samsung Vina Electronics Co., Ltd. (SAVINA)	Jan 1995	Electronic goods sales	107,908	Over 50%	Y
Samsung Electronics Vietnam Co., Ltd. (SEV)	Mar 2008	Electronic goods production	7,819,080	Over 50%	Y
Samsung Electronics Vietnam THAINGUYEN Co., Ltd. (SEVT)	Mar 2013	Telecom product production	13,497,264	Over 50%	Y

Subsidiary	Date established	Major business	Assets as of Dec 31, 2024	Ownership	Classified as major subsidiary (Y/N)
Samsung Electronics HCMC CE Complex Co., Ltd. (SEHC)	Feb 2015	Electronic goods production and sales	4,863,158	Over 50%	Y
Samsung Display Vietnam Co., Ltd. (SDV)	Jul 2014	Display panel production	7,724,664	Over 50%	Y
PT Samsung Electronics Indonesia (SEIN)	Aug 1991	Electronic goods production and sales	1,260,299	Over 50%	Y
PT Samsung Telecommunications Indonesia (STIN)	Mar 2003	Electronic goods sales and service	90,159	Over 50%	Y
Thai Samsung Electronics Co., Ltd. (TSE)	Oct 1988	Electronic goods production and sales	2,637,138	Over 50%	Y
Laos Samsung Electronics Sole Co., Ltd (LSE)	Sep 2016	Marketing	1,517	Over 50%	N
Samsung Electronics Philippines Corporation (SEPCO)	Mar 1996	Electronic goods sales	356,406	Over 50%	Y
Samsung Electronics Australia Pty. Ltd. (SEAU)	Nov 1987	Electronic goods sales	619,217	Over 50%	Y
Samsung Electronics New Zealand Limited (SENZ)	Sep 2013	Electronic goods sales	218,565	Over 50%	Y
Samsung India Electronics Private Ltd. (SIEL)	Aug 1995	Electronic goods production and sales	9,561,708	Over 50%	Y
Red Brick Lane Marketing Solutions Pvt. Ltd.	Jan 2012	Marketing	1,386	Over 50%	N
Samsung Display Noida Private Limited (SDN)	Jul 2019	Display panel production	735,189	Over 50%	Y
Samsung R&D Institute India-Bangalore Private Limited (SRI-Bangalore)	May 2005	R&D	669,124	Over 50%	Y
Samsung R&D Institute BanglaDesh Limited (SRBD)	Aug 2010	R&D	20,023	Over 50%	N
Samsung Nepal Services Pvt, Ltd (SNSL)	Nov 2017	Service	882	Over 50%	N
Samsung Japan Corporation (SJC)	Dec 1975	Semiconductor and display panel sales	1,695,083	Over 50%	Y
Samsung R&D Institute Japan Co. Ltd. (SRJ)	Aug 1992	R&D	118,750	Over 50%	Y
Samsung Electronics Japan Co., Ltd. (SEJ)	Sep 2008	Electronic goods sales	788,243	Over 50%	Y
Harman Connected Services Corp. India Pvt. Ltd.	Apr 2002	Connected Service Provider	408,701	Over 50%	Y
Harman International (India) Private Limited	Jan 2009	Audio product sales and R&D	478,874	Over 50%	Y
Harman International Industries PTY Ltd.	Dec 2014	Subsidiary management (overseas)	5,024	Over 50%	N
Harman International (Thailand) Co., Ltd	Jun 2024	Connected Service Provider	42,827	Over 50%	N
Harman International Japan Co., Ltd.	Jun 1991	Audio product sales and R&D	106,926	Over 50%	Y
Harman Singapore Pte. Ltd.	Aug 2007	Audio product sales	15,424	Over 50%	N
Samsung (CHINA) Investment Co., Ltd. (SCIC)	Mar 1996	Electronic goods sales	16,111,528	Over 50%	Y
Samsung Electronics Hong Kong Co., Ltd. (SEHK)	Sep 1988	Electronic goods sales	1,002,962	Over 50%	Y
Samsung Electronics Taiwan Co., Ltd. (SET)	Nov 1994	Electronic goods sales	2,411,145	Over 50%	Y
Suzhou Samsung Electronics Co., Ltd. (SSEC)	Apr 1995	Home appliance production	832,004	Over 50%	Y
Samsung Suzhou Electronics Export Co., Ltd. (SSEC-E)	Apr 1995	Home appliance production	382,362	Over 50%	Y
Samsung Electronics Suzhou Computer Co., Ltd. (SESC)	Sep 2002	R&D	114,676	Over 50%	Y

Subsidiary	Date established	Major business	Assets as of Dec 31, 2024	Ownership	Classified as major subsidiary (Y/N)
Tianjin Samsung Telecom Technology Co., Ltd. (TSTC)	Mar 2001	Telecom product production	724,202	Over 50%	Y
Beijing Samsung Telecom R&D Center (SRC-Beijing)	Sep 2000	R&D	80,864	Over 50%	Y
Samsung Electronics China R&D Center (SRC-Nanjing)	May 2004	R&D	37,657	Over 50%	N
Samsung Mobile R&D Center China- Guangzhou (SRC-Guangzhou)	Jan 2010	R&D	44,664	Over 50%	N
Samsung R&D Institute China-Shenzhen (SRC-Shenzhen)	Mar 2013	R&D	31,011	Over 50%	N
Shanghai Samsung Semiconductor Co., Ltd. (SSS)	Oct 2001	Semiconductor and display panel sales	6,467,878	Over 50%	Y
Samsung (China) Semiconductor Co., Ltd. (SCS)	Sep 2012	Semiconductor production	18,796,411	Over 50%	Y
Samsung SemiConductor Xian Co., Ltd. (SSCX)	Apr 2016	Semiconductor and display panel sales	501,775	Over 50%	Y
Samsung Electronics Suzhou Semiconductor Co., Ltd. (SESS)	Dec 1994	Semiconductor processing	987,955	Over 50%	Y
Tianjin Samsung LED Co., Ltd. (TSLED)	May 2009	LED production	285,028	Over 50%	Y
Samsung Semiconductor (China) R&D Co., Ltd. (SSCR)	Apr 2003	R&D	87,983	Over 50%	N
Samsung Display Dongguan Co., Ltd. (SDD)	Nov 2001	Display panel production	812,397	Over 50%	Y
Samsung Display Tianjin Co., Ltd. (SDT)	Jun 2004	Display panel production	619,748	Over 50%	Y
SEMES (XIAN) Co., Ltd.	Jul 2013	Semiconductor/FPD equipment services	4,902	Over 50%	N
Samsung Semiconductor Investment L.P. I	Dec 2021	Tech/emerging-tech venture firm investments	6,496	Over 50%	N
Harman (China) Technologies Co., Ltd.	Mar 2011	Audio product production	295,401	Over 50%	Y
Harman (Suzhou) Audio and Infotainment Systems Co., Ltd.	Mar 2013	Audio product sales	6,883	Over 50%	N
Harman Automotive Electronic Systems (Suzhou) Co., Ltd.	Sep 2006	Audio product R&D and production	586,792	Over 50%	Y
Harman Commercial (Shanghai) Co., Ltd.	Oct 2010	Audio product sales	228	Over 50%	N
Harman Connected Services Solutions (Chengdu) Co., Ltd.	Aug 2007	Connected Service Provider	14,098	Over 50%	N
Harman Holding Limited	May 2007	Audio product sales	722,932	Over 50%	Y
Harman International (China) Holdings Co., Ltd.	Jun 2009	Audio product sales and R&D	763,719	Over 50%	Y
Harman Technology (Shenzhen) Co., Ltd.	Sep 2004	Audio product sales and R&D	46,772	Over 50%	N
Samsung Display	Apr 2012	Display panel production and sales	67,541,382	Over 50%	Y
SU Materials	Aug 2011	Display panel component production	37,775	Over 50%	N
STECO	Jun 1995	Semiconductor component production	142,277	Over 50%	Y
SEMES	Jan 1993	Semiconductor/FPD manufacturing equipment production and sales	2,365,712	Over 50%	Y
Samsung Electronics Service	Oct 1998	Electronics goods repair services	743,875	Over 50%	Y
Samsung Electronics Service CS	Oct 2018	Customer management services	24,241	Over 50%	N
Samsung Electronics Sales	Jul 1996	Electronic goods sales	1,221,556	Over 50%	Y
Samsung Electronics Logitech	Apr 1998	Total logistics services	491,486	Over 50%	Y
Samsung Medison	Jul 1985	Medical device production and sales	761,774	Over 50%	Y
Stellarforest	Dec 2022	Food manufacturing and processing	9,008	Over 50%	N

Subsidiary	Date established	Major business	Assets as of Dec 31, 2024	Ownership	Classified as major subsidiary (Y/N)
Mirero System	Jan 1994	Semiconductor software development and supply	47,877	Over 50%	N
Harman Korea	Jan 2005	Semiconductor software development and supply	21,929	Over 50%	N
SVIC#21 Venture Capital Union	Nov 2011	Tech/emerging-tech venture firm investments	90,275	Over 50%	Y
SVIC#22 Venture Capital Union	Nov 2011	Tech/emerging-tech venture firm investments	14,647	Over 50%	N
SVIC#26 Venture Capital Union	Nov 2014	Tech/emerging-tech venture firm investments	21,788	Over 50%	N
SVIC#28 Venture Capital Union	Feb 2015	Tech/emerging-tech venture firm investments	214,080	Over 50%	Y
SVIC#32 Venture Capital Union	Aug 2016	Tech/emerging-tech venture firm investments	182,202	Over 50%	Y
SVIC#33 Venture Capital Union	Nov 2016	Tech/emerging-tech venture firm investments	280,271	Over 50%	Y
SVIC#37 Venture Capital Union	Nov 2017	Tech/emerging-tech venture firm investments	22,632	Over 50%	N
SVIC#42 Venture Capital Union	Nov 2018	Tech/emerging-tech venture firm investments	29,234	Over 50%	N
SVIC#43 Venture Capital Union	Dec 2018	Tech/emerging-tech venture firm investments	15,873	Over 50%	N
SVIC#45 Venture Capital Union	May 2019	Tech/emerging-tech venture firm investments	134,945	Over 50%	Y
SVIC#52 Venture Capital Union	May 2021	Tech/emerging-tech venture firm investments	61,790	Over 50%	Y
SVIC#55 Venture Capital Union	Sep 2021	Tech/emerging-tech venture firm investments	142,101	Over 50%	Y
SVIC#56 Venture Capital Union	Nov 2021	Tech/emerging-tech venture firm investments	48,895	Over 50%	N
SVIC#57 Venture Capital Union	Aug 2022	Tech/emerging-tech venture firm investments	67,907	Over 50%	N
SVIC#62 Venture Capital Union	Mar 2023	Tech/emerging-tech venture firm investments	11,720	Over 50%	N
SVIC#62 Venture Capital Union	Oct 2024	Tech/emerging-tech venture firm investments	39,822	Over 50%	N
Private Equity Fund for Semiconductor Growth	Mar 2017	Semiconductor industry investments	34,169	Over 50%	N
Private Equity Fund for Co-existence of System Semiconductor Firms	Apr 2020	Semiconductor industry investments	59,999	Over 50%	N
General Private Equity Fund for Semiconductor Ecosystem	Jul 2023	Semiconductor industry investments	22,754	Over 50%	N

Companies with over KRW 75 billion in total assets as of December 31, 2024 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 2021	46	71	20	30	30	31	228	-	-
Changes in 2022	(1)	1	-	2	-	2	4	<p>[Europe/CIS: 4]  Samsung R&amp;D Institute Ukraine (SRUKR)  Samsung Electronics Uzbekistan FC LLC.  (SEUZ) Apostera GmbH  Apostera UA, LLC</p> <p>[Asia ex China: 2]  DOWOOINSYS VINA COMPANY LIMITED  Red Brick Lane Marketing Solutions Pvt. Ltd.</p> <p>[Domestic: 2]  SVIC #57 Venture Capital Union Stellarforest</p>	<p>[Americas: 1]  Dacor Canada Co.</p> <p>[Europe/CIS: 3]  AMX UK Limited  Harman International s.r.o  Apostera GmbH</p>
As of Dec 31 2022	45	72	20	32	30	33	232	-	-
Changes in 2023	2	(4)	-	-	-	2	-	<p>[Americas: 4]  Samsung Federal, Inc. (SFI)  Samsung Display America Holdings, Inc.  (SDAH) eMagin Corporation  Roon Labs, LLC</p> <p>[Domestic: 2]  SVIC #62 Venture Capital Union  General Private Equity Fund for  Semiconductor Ecosystem</p>	<p>[Americas: 2]  Dacor Holdings  Inc Dacor, Inc</p> <p>[Europe/CIS: 4]  Red Bend Software Ltd.  Harman Finance International GP S.a.r.l  Harman Finance International, SCA Harman  Automotive UK Limited</p>
As of Dec 31 2023	47	68	20	32	30	35	232	-	-
Changes in 2024	-	-	1	-	(1)	(4)	(4)	<p>[Americas: 1]  Sonio Corporation</p> <p>[Europe/CIS: 2]  Oxford Semantic Technologies Limited  Sonio SAS</p> <p>[Asia ex China: 1]  Harman International (Thailand) Co., Ltd.</p> <p>[Middle East/Africa: 1]  Samsung Electronics Middle east and  North Africa (SEMENA)</p> <p>[Domestic: 1]  SVIC #67 Venture Capital Union</p>	<p>[Americas: 1]  Harman Financial Group LLC</p> <p>[Europe/CIS: 2]  Samsung Display Slovakia, s.r.o., v likvidaci  (SDSK)  Samsung Electronics Overseas B.V. (SEO)</p> <p>[Asia ex China: 1]  Dowooinsys Vina Company Limited</p> <p>[China: 1]  Tianjin Samsung Electronics Co., Ltd. (TSEC)</p> <p>[Domestic: 5]  Dowooinsys Co., Ltd  Gf-System Co., Ltd  SVIC #29 Venture Capital Union  SVIC #40 Venture Capital Union  SVIC #48 Venture Capital Union</p>
As of Dec 31 2024	47	68	21	32	29	31	228	-	-

## **2. *Affiliates***

### **A. Domestic Affiliates**

As of December 31, 2024, Samsung Group is consisted of 63 domestic affiliates. Among the Samsung Group's 63 domestic affiliates, seventeen (17) affiliates including Samsung Electronics are listed, and forty-six (46) affiliates are unlisted.

[As of December 31, 2024]

<b>Listing</b>	<b>No. of affiliates</b>	<b>Name of affiliates</b>
<b>Listed</b>	<b>17</b>	Samsung C&T; Samsung Biologics; Samsung Life Insurance; Samsung SDI; Samsung SDS; SamsungFN REIT; Samsung E&A; Samsung Electro-mechanics; Samsung Electronics; Samsung Heavy Industries; Samsung Securities; Samsung Card; Samsung Fire & Marine Insurance; Multicampus; S1; Cheil Worldwide; Hotel Shilla
<b>Unlisted</b>	<b>46</b>	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; 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; Mirero System; 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; Stellar Forest of Hope
<b>Total</b>	<b>63</b>	

## B. Foreign Affiliates

[As of December 31, 2024]

Listing	No. of affiliates	Name of affiliates	Country
Unlisted	1	SAMOO AUSTIN INC	USA
	2	SAMOO HU Designer and Engineering Services Limited	Hungary
	3	SAMOO DESIGNERS & ENGINEERS INDIA PRIVATE LIMITED	India
	4	SAMOO (KL) SDN. BHD.	Malaysia
	5	SAMOO Design Consulting Co.,Ltd	China
	6	Samsung Solar Construction Inc.	USA
	7	QSSC, S.A. de C.V.	Mexico
	8	Samsung Solar Energy LLC	USA
	9	Equipment Trading Solutions Group, LLC	USA
	10	SAMSUNG C&T CHARGING SOLUTIONS LLC	USA
	11	SP Armow Wind Ontario LP	Canada
	12	SRE GRW EPC GP Inc.	Canada
	13	SRE GRW EPC LP	Canada
	14	SRE SKW EPC GP Inc.	Canada
	15	SRE SKW EPC LP	Canada
	16	SRE WIND PA GP INC.	Canada
	17	SRE WIND PA LP	Canada
	18	SRE GRS Holdings GP Inc.	Canada
	19	SRE GRS Holdings LP	Canada
	20	SRE K2 EPC GP Inc.	Canada
	21	SRE K2 EPC LP	Canada
	22	SRE KS HOLDINGS GP INC.	Canada
	23	SRE KS HOLDINGS LP	Canada
	24	SP Belle River Wind LP	Canada
	25	SRE Armow EPC GP Inc.	Canada
	26	SRE Armow EPC LP	Canada
	27	North Kent Wind 1 LP	Canada
	28	SRE Wind GP Holding Inc.	Canada
	29	South Kent Wind LP Inc.	Canada
	30	Grand Renewable Wind LP Inc.	Canada
	31	SRE North Kent 2 LP Holdings LP	Canada
	32	SRE Solar Development GP Inc.	Canada
	33	SRE Solar Development LP	Canada
	34	SRE Windsor Holdings GP Inc.	Canada
	35	SRE Southgate Holdings GP Inc.	Canada
	36	SRE Solar Construction Management GP Inc.	Canada
	37	SRE Solar Construction Management LP	Canada
	38	SRE BRW EPC GP INC.	Canada
	39	SRE BRW EPC LP	Canada
	40	SRE North Kent 1 GP Holdings Inc	Canada
	41	SRE North Kent 2 GP Holdings Inc	Canada
	42	SRE Belle River GP Holdings Inc	Canada
	43	SRE NK1 EPC GP Inc	Canada
	44	SRE NK1 EPC LP	Canada

Listing	No. of affiliates	Name of affiliates	Country
	45	SRE Summerside Construction GP Inc.	Canada
	46	SRE Summerside Construction LP	Canada
	47	PLL Holdings LLC	USA
	48	Grand Renewable Solar GP Inc.	Canada
	49	KINGSTON SOLAR GP INC.	Canada
	50	SP Arrow Wind Ontario GP Inc	Canada
	51	South Kent Wind GP Inc.	Canada
	52	Grand Renewable Wind GP Inc.	Canada
	53	North Kent Wind 1 GP Inc	Canada
	54	SP Belle River Wind GP Inc	Canada
	55	Samsung Solar Energy 1 LLC	USA
	56	Samsung C&T Renewables, LLC	USA
	57	Samsung Solar Energy 3, LLC	USA
	58	5S ENERGY HOLDINGS, LLC	USA
	59	SungEel Recycling Park Thuringen GmbH	Germany
	60	POSS-SLPC, S.R.O	Slovakia
	61	Solluce Romania 1 B.V.	Romania
	62	Samsung C&T Renewable Energy Europe GmbH	Germany
	63	S.C. Otelinox S.A	Romania
	64	Samsung C&T Corporation Romania S.R.L	Romania
	65	Arteus Partner I HoldCo GmbH & Co. KG	Germany
	66	Arteus Partner I GP GmbH	Germany
	67	WARIS GIGIH ENGINEERING AND TECHNOLOGY SDN. BHD.	Malaysia
	68	Samsung Chemtech Vina LLC	Vietnam
	69	Samsung C&T Thailand Co., Ltd	Thailand
	70	Malaysia Samsung Steel Center Sdn.Bhd	Malaysia
	71	S&G Biofuel PTE.LTD	Singapore
	72	PT. Gandaerah Hendana	Indonesia
	73	PT. Inecda	Indonesia
	74	VISTA CONTRACTING AND DEVELOPMENT BANGLADESH LTD.	Bangladesh
	75	Vista NEXT Limited	Bangladesh
	76	CME - VISTA JOINT STOCK COMPANY	Vietnam
	77	WELVISTA COMPANY LIMITED	Vietnam
	78	SAMSUNG CONST. CO. PHILS.	Philippines
	79	SAMSUNG TRADING (SHANGHAI) CO., LTD	China
	80	Samsung Precision Stainless Steel(pinghu) Co.,Ltd.	China
	81	Samsung Japan Corporation	Japan
	82	Samsung R&D Institute Japan Co. Ltd.	Japan
	83	Samsung Electronics America, Inc.	USA
	84	Samsung Electronics Canada, Inc.	Canada
	85	Samsung Electronics Mexico S.A. De C.V.	Mexico
	86	Samsung Electronics Ltd.	United Kingdom
	87	Samsung Electronics (UK) Ltd.	United Kingdom
	88	Samsung Electronics Holding GmbH	Germany
	89	Samsung Electronics Iberia, S.A.	Spain
	90	Samsung Electronics France S.A.S	France
	91	Samsung Electronics Hungarian Private Co. Ltd.	Hungary
	92	Samsung Electronics Italia S.P.A.	Italy

Listing	No. of affiliates	Name of affiliates	Country
	93	Samsung Electronics Europe Logistics B.V.	Netherlands
	94	Samsung Electronics Benelux B.V.	Netherlands
	95	Samsung Electronics Polska, SP.Zo.o	Poland
	96	Samsung Electronics Portuguesa, Unipessoal, Lda.	Portugal
	97	Samsung Electronics Nordic Aktiebolag	Sweden
	98	Samsung Electronics Austria GmbH	Austria
	99	Samsung Electronics Slovakia s.r.o	Slovakia
	100	Samsung Electronics Europe Holding Cooperatief U.A.	Netherlands
	101	Samsung Electronics Display (M) Sdn. Bhd.	Malaysia
	102	Samsung Electronics (M) Sdn. Bhd.	Malaysia
	103	Samsung Vina Electronics Co., Ltd.	Vietnam
	104	Samsung Asia Pte. Ltd.	Singapore
	105	Samsung India Electronics Private Ltd.	India
	106	Samsung R&D Institute India-Bangalore Private Limited	India
	107	Samsung Electronics Australia Pty. Ltd.	Australia
	108	PT Samsung Electronics Indonesia	Indonesia
	109	Thai Samsung Electronics Co., Ltd.	Thailand
	110	Samsung Malaysia Electronics (SME) Sdn. Bhd.	Malaysia
	111	Samsung Electronics Hong Kong Co., Ltd.	Hong Kong
	112	Suzhou Samsung Electronics Co., Ltd.	China
	113	Samsung (CHINA) Investment Co., Ltd.	China
	114	Samsung Electronics Suzhou Semiconductor Co., Ltd.	China
	115	Samsung Electronics Taiwan Co., Ltd.	Taiwan
	116	Tianjin Samsung Telecom Technology Co., Ltd.	China
	117	Shanghai Samsung Semiconductor Co., Ltd.	China
	118	Samsung Electronics Suzhou Computer Co., Ltd.	China
	119	Samsung Semiconductor (China) R&D Co., Ltd.	China
	120	Samsung (China) Semiconductor Co., Ltd.	China
	121	Samsung SemiConductor Xian Co., Ltd.	China
	122	Samsung Gulf Electronics Co., Ltd.	Utd.Arab Emir.
	123	Samsung Electronics Egypt S.A.E	Egypt
	124	Samsung Electronics South Africa(Pty) Ltd.	South Africa
	125	Samsung Electronics Latinoamerica(Zona Libre), S. A.	Panama
	126	Samsung Eletronica da Amazonia Ltda.	Brazil
	127	Samsung Electronics Argentina S.A.	Argentina
	128	Samsung Electronics Chile Limitada	Chile
	129	Samsung Electronics Rus Company LLC	Russian Fed.
	130	Samsung Electronics Rus Kaluga LLC	Russian Fed.
	131	Tianjin Samsung LED Co., Ltd.	China
	132	Samsung Biologics America, Inc.	USA
	133	Samsung Bioepis United States Inc.	USA
	134	SAMSUNG BIOEPIS UK LIMITED	United Kingdom
	135	Samsung Bioepis NL B.V.	Netherlands
	136	Samsung Bioepis CH GmbH	Switzerland
	137	Samsung Bioepis PL Sp z o.o.	Poland
	138	SAMSUNG BIOEPIS AU PTY LTD	Australia
	139	SAMSUNG BIOEPIS NZ LIMITED	New Zealand
	140	Samsung Bioepis TW Limited	Taiwan

Listing	No. of affiliates	Name of affiliates	Country
	141	Samsung Bioepis HK Limited	Hong Kong
	142	SAMSUNG BIOEPIS IL LTD	Israel
	143	SAMSUNG BIOEPIS BR PHARMACEUTICAL LTDA	Brazil
	144	Intellectual Keystone Technology LLC	USA
	145	Samsung Display America Holdings, Inc	USA
	146	Samsung Display Vietnam Co., Ltd.	Vietnam
	147	Samsung Display Noida Private Limited	India
	148	Samsung Display Dongguan Co., Ltd.	China
	149	Samsung Display Tianjin Co., Ltd.	China
	150	Novaled GmbH	Germany
	151	SEMES America, Inc.	USA
	152	SEMES (XIAN) Co., Ltd.	China
	153	Sonio SAS	France
	154	NeuroLogica Corp.	USA
	155	Samsung Lennox HVAC North America, LLC	USA
	156	SmartThings, Inc.	USA
	157	Samsung Oak Holdings, Inc.	USA
	158	Joyent, Inc.	USA
	159	TeleWorld Solutions, Inc.	USA
	160	Samsung Semiconductor, Inc.	USA
	161	Samsung Research America, Inc	USA
	162	Samsung Electronics Home Appliances America, LLC	USA
	163	Samsung International, Inc.	USA
	164	Harman International Industries, Inc.	USA
	165	Samsung Federal, Inc.	USA
	166	Samsung Austin Semiconductor LLC.	USA
	167	AdGear Technologies Inc.	Canada
	168	SAMSUNG NEXT LLC	USA
	169	SAMSUNG NEXT FUND LLC	USA
	170	Samsung Mexicana S.A. de C.V	Mexico
	171	Samsung Electronics Digital Appliance Mexico, SA de CV	Mexico
	172	eMagin Corporation	USA
	173	Harman International Japan Co., Ltd.	Japan
	174	Harman International Industries Canada Ltd.	Canada
	175	Harman Becker Automotive Systems, Inc.	USA
	176	Harman Professional, Inc.	USA
	177	Harman Connected Services, Inc.	USA
	178	Roon Labs, LLC	USA
	179	Harman Belgium SA	Belgium
	180	Harman France SNC	France
	181	Red Bend Software SAS	France
	182	Harman Inc. & Co. KG	Germany
	183	Harman KG Holding, LLC	USA
	184	Harman Becker Automotive Systems Italy S.R.L.	Italy
	185	Harman Industries Holdings Mauritius Ltd.	Mauritius
	186	Harman International Mexico, S. de R.L. de C.V.	Mexico
	187	Harman International Estonia OU	Estonia
	188	Harman Singapore Pte. Ltd.	Singapore

Listing	No. of affiliates	Name of affiliates	Country
	189	Harman International (Thailand) Co., Ltd.	Thailand
	190	Harman da Amazonia Industria Eletronica e Participacoes Ltda.	Brazil
	191	Harman do Brasil Industria Eletronica e Participacoes Ltda.	Brazil
	192	Harman Connected Services Engineering Corp.	USA
	193	Harman Connected Services AB.	Sweden
	194	Harman Connected Services UK Ltd.	United Kingdom
	195	Harman Connected Services Corp. India Pvt. Ltd.	India
	196	Global Symphony Technology Group Private Ltd.	Mauritius
	197	Samsung Semiconductor Europe Limited	United Kingdom
	198	Samsung Semiconductor Europe GmbH	Germany
	199	Samsung Electronics GmbH	Germany
	200	Sonio Corporation	USA
	201	Samsung Electronics Czech and Slovak s.r.o.	Czech Republic
	202	SAMSUNG ELECTRONICS BALTICS SIA	Latvia
	203	Samsung Electronics West Africa Ltd.	Nigeria
	204	Samsung Electronics East Africa Ltd.	Kenya
	205	Samsung Electronics Saudi Arabia Ltd.	Saudi Arabia
	206	Samsung Electronics Israel Ltd.	Israel
	207	Samsung Electronics Tunisia S.A.R.L	Tunisia
	208	Samsung Electronics Pakistan(Private) Ltd.	Pakistan
	209	Samsung Electronics Middle East and North Africa	Saudi Arabia
	210	Samsung Electronics South Africa Production (pty) Ltd.	South Africa
	211	Samsung Electronics Turkiye	Turkiye
	212	Samsung Electronics Industry and Commerce Ltd.	Turkiye
	213	Samsung Semiconductor Israel R&D Center, Ltd.	Israel
	214	Samsung Electronics Levant Co.,Ltd.	Jordan
	215	Samsung Electronics Maghreb Arab	Morocco
	216	Samsung Electronics Venezuela, C.A.	Venezuela
	217	Samsung Electronics Peru S.A.C.	Peru
	218	Samsung Electronics Ukraine Company LLC	Ukraine
	219	Samsung R&D Institute Ukraine	Ukraine
	220	Samsung R&D Institute Rus LLC	Russian Fed.
	221	Samsung Electronics Central Eurasia LLP	Kazakhstan
	222	Samsung Electronics Caucasus Co. Ltd	Azerbaijan
	223	Samsung Electronics Uzbekistan FC LLC	Uzbekistan
	224	Corephotonics Ltd.	Israel
	225	Samsung Nanoradio Design Center	Sweden
	226	Harman Professional Denmark ApS	Denmark
	227	Studer Professional Audio GmbH	Switzerland
	228	Martin Professional Japan Ltd.	Japan
	229	Harman International Romania SRL	Romania
	230	Apostera UA, LLC	Ukraine
	231	Harman Becker Automotive Systems GmbH	Germany
	232	Harman Deutschland GmbH	Germany
	233	Harman Becker Automotive Systems Manufacturing Kft	Hungary
	234	Harman RUS CIS LLC	Russian Fed.
	235	Harman Holding Gmbh & Co. KG	Germany
	236	Harman Management Gmbh	Germany

Listing	No. of affiliates	Name of affiliates	Country
	237	Harman Hungary Financing Ltd.	Hungary
	238	Harman Connected Services OOO	Russian Fed.
	239	Harman Professional Kft	Hungary
	240	Harman Consumer Nederland B.V.	Netherlands
	241	Red Bend Ltd.	Israel
	242	Harman International Industries Limited	United Kingdom
	243	AKG Acoustics GmbH	Austria
	244	Harman Audio Iberia Espana Sociedad Limitada	Spain
	245	Harman Holding Limited	Hong Kong
	246	Harman Finland Oy	Finland
	247	Harman Connected Services GmbH	Germany
	248	Harman Connected Services Poland Sp.zoo	Poland
	249	Harman Connected Services Solutions (Chengdu) Co., Ltd.	China
	250	Harman International Industries PTY Ltd.	Australia
	251	Harman de Mexico, S. de R.L. de C.V.	Mexico
	252	Harman Connected Services Morocco	Morocco
	253	Samsung Electronics Switzerland GmbH	Switzerland
	254	Samsung Electronics Romania LLC	Romania
	255	SAMSUNG Zhilabs, S.L.	Spain
	256	Porta Nuova Varesine Building 2 S.r.l.	Italy
	257	Samsung Electronics Poland Manufacturing SP.Zo.o	Poland
	258	Samsung Electronics Greece S.M.S.A	Greece
	259	Samsung Electronics Air Conditioner Europe B.V.	Netherlands
	260	FOODIENT LTD.	United Kingdom
	261	OXFORD SEMANTIC TECHNOLOGIES LIMITED	United Kingdom
	262	Samsung Denmark Research Center ApS	Denmark
	263	Samsung Cambridge Solution Centre Limited	United Kingdom
	264	Samsung Electronics Japan Co., Ltd.	Japan
	265	Samsung Electronics Singapore Pte. Ltd.	Singapore
	266	Samsung Electronics New Zealand Limited	New Zealand
	267	Samsung Electronics Philippines Corporation	Philippines
	268	Samsung R&D Institute BanglaDesh Limited	Bangladesh
	269	Samsung Electronics Vietnam Co., Ltd.	Vietnam
	270	Samsung Electronics Vietnam THAINGUYEN Co., Ltd.	Vietnam
	271	Samsung Electronics HCMC CE Complex Co., Ltd.	Vietnam
	272	Samsung Nepal Services Pvt, Ltd	Nepal
	273	Red Brick Lane Marketing Solutions Pvt. Ltd.	India
	274	PT Samsung Telecommunications Indonesia	Indonesia
	275	Laos Samsung Electronics Sole Co., Ltd	Laos
	276	iMarket Asia Co., Ltd.	Hong Kong
	277	Samsung Suzhou Electronics Export Co., Ltd.	China
	278	Samsung Mobile R&D Center China-Guangzhou	China
	279	Samsung R&D Institute China-Shenzhen	China
	280	Beijing Samsung Telecom R&D Center	China
	281	Samsung Electronics China R&D Center	China
	282	Harman (Suzhou) Audio and Infotainment Systems Co., Ltd.	China
	283	Harman Technology (Shenzhen) Co., Ltd.	China
	284	Harman (China) Technologies Co., Ltd.	China

Listing	No. of affiliates	Name of affiliates	Country
	285	Harman Commercial (Shanghai) Co., Ltd.	China
	286	Harman International (China) Holdings Co., Ltd.	China
	287	Harman Automotive Electronic Systems (Suzhou) Co., Ltd.	China
	288	Harman International (India) Private Limited	India
	289	Samsung Electronics Latinoamerica Miami, Inc.	USA
	290	Samsung Electronica Colombia S.A.	Colombia
	291	Samsung Electronics Panama. S.A.	Panama
	292	Samsung SDI Japan Co., Ltd.	Japan
	293	Samsung SDI America Inc.	USA
	294	Samsung SDI Hungary Zrt.	Hungary
	295	Samsung SDI Europe GmbH	Germany
	296	Samsung SDI Battery Systems GmbH	Austria
	297	Samsung SDI Vietnam Co., Ltd.	Vietnam
	298	Samsung SDI Energy Malaysia Sdn. Bhd.	Malaysia
	299	Samsung SDI India Private Limited	India
	300	Samsung SDI(Hong Kong) Ltd.	Hong Kong
	301	Samsung SDI China Co., Ltd.	China
	302	Samsung SDI-ARN (Xi'An) Power Battery Co., Ltd.	China
	303	Samsung SDI ( Tianjin ) Battery Co.,Ltd.	China
	304	StarPlus Energy LLC.	USA
	305	Samsung SDI Southeast Asia PTE. LTD.	Singapore
	306	Samsung SDI Wuxi Co., Ltd.	China
	307	Tianjin Samsung SDI Co., Ltd.	China
	308	Samsung Electro-Mechanics Japan Co., Ltd.	Japan
	309	Samsung Electro-Mechanics America, Inc.	USA
	310	Samsung Electro-Mechanics Mexico, S.A. de C.V.	Mexico
	311	Samsung Electro-Mechanics GmbH	Germany
	312	Samsung Electro-Mechanics Philippines, Corp.	Philippines
	313	Calamba Premier Realty Corporation	Philippines
	314	Samsung Electro-Mechanics Pte Ltd.	Singapore
	315	Samsung Electro-Mechanics Vietnam Co., Ltd.	Vietnam
	316	Samsung Electro-Mechanics Software India Bangalore Private Limited	India
	317	Tianjin Samsung Electro-Mechanics Co., Ltd.	China
	318	Samsung High-Tech Electro-Mechanics(Tianjin) Co., Ltd.	China
	319	Samsung Electro-Mechanics (Shenzhen) Co., Ltd.	China
	320	Batino Realty Corporation	Philippines
	321	Samsung Fire & Marine Management Corporation	USA
	322	SAMSUNG FIRE & MARINE INSURANCE COMPANY OF EUROPE LTD.	United Kingdom
	323	PT. Asuransi Samsung Tugu	Indonesia
	324	SAMSUNG VINA INSURANCE COMPANY LIMITED	Vietnam
	325	Samsung Reinsurance Pte. Ltd.	Singapore
	326	SAMSUNG PROPERTY, INSURANCE COMPANY(CHINA) LTD.	China
	327	Samsung Fire & Marine Insurance Management Middle East Limited	Utd. Arab Emir.
	328	Camellia Consulting Corporation	USA
	329	Samsung Heavy Industries India Pvt.Ltd.	India
	330	SAMSUNG HEAVY INDUSTRIES (M) SDN.BHD	Malaysia
	331	Samsung Heavy Industries (Rongcheng) Co., Ltd.	China
	332	SAMSUNG HEAVY INDUSTRIES NIGERIA LIMITED	Nigeria

Listing	No. of affiliates	Name of affiliates	Country
	333	Samsung Heavy Industries Mozambique LDA	Mozambique
	334	Samsung Heavy Industries Rus LLC	Russian Fed.
	335	SHI - MCI FZE	Nigeria
	336	Samsung Life Insurance (Thailand) Public Co., Ltd	Thailand
	337	Beijing Samsung Real Estate Co.. Ltd	China
	338	Samsung Asset Management (New York), Inc.	USA
	339	Samsung Global SME Private Equity Manager Fund Co., Ltd.	Cayman Islands
	340	Samsung Asset Management U.S. Holdings, Inc.	USA
	341	Samsung Private Equity Fund 2022 GP, Ltd.	Cayman Islands
	342	Samsung Co-Investment 2021 GP, Ltd.	Cayman Islands
	343	Samsung Asset Management(London) Ltd.	United Kingdom
	344	Samsung Private Equity Manager I Co., Ltd.	Cayman Islands
	345	Samsung Asset Management (Hong Kong) Ltd.	Hong Kong
	346	Samsung C&T Japan Corporation	Japan
	347	Samsung C&T America Inc.	USA
	348	Samsung E&C America, INC.	USA
	349	Samsung Renewable Energy Inc.	Canada
	350	Samsung C&T Oil & Gas Parallel Corp.	USA
	351	Samsung C&T Lima S.A.C.	Peru
	352	Samsung C&T Deutschland GmbH	Germany
	353	Samsung C&T U.K. Ltd.	United Kingdom
	354	Samsung C&T ECUK Limited	United Kingdom
	355	Whessoe engineering Limited	United Kingdom
	356	SAM investment Manzanilo.B.V	Netherlands
	357	Samsung C&T Corporation Poland LLC	Poland
	358	Samsung C&T (KL) Sdn.,Bhd.	Malaysia
	359	Samsung C&T Malaysia SDN. BHD	Malaysia
	360	Erdsam Co., Ltd.	Hong Kong
	361	Samsung C&T India Private Limited	India
	362	Samsung C&T Corporation India Private Limited	India
	363	Samsung C&T Singapore Pte., Ltd.	Singapore
	364	SAMSUNG C&T Mongolia LLC.	Mongolia
	365	Samsung C&T Eng.&Const. Mongolia LLC.	Mongolia
	366	S&WOO CONSTRUCTION PHILIPPINES,INC.	Philippines
	367	VSSC STEEL CENTER LIMITED LIABILITY COMPANY	Vietnam
	368	Vista Contracting and Investment Global Pte. Ltd.	Singapore
	369	CHEIL HOLDING INC.	Philippines
	370	Samsung C&T Renewable Energy Australia Pty Ltd	Australia
	371	SAMSUNG C&T PHILIPPINES, CORP.	Philippines
	372	Samsung C&T Hongkong Ltd.	Hong Kong
	373	Samsung C&T Taiwan Co., Ltd.	Taiwan
	374	SAMSUNG C&T (SHANGHAI) CO., LTD.	China
	375	Samsung C&T (Xi'an) Co., Ltd.	China
	376	SAMSUNG C&T CORPORATION SAUDI ARABIA	Saudi Arabia
	377	SAM Gulf Investment Limited	Utd.Arab Emir.
	378	Samsung C&T Chile Copper SpA	Chile
	379	SCNT Power Kelar Inversiones Limitada	Chile
	380	Samsung C&T Corporation Rus LLC	Russian Fed.

Listing	No. of affiliates	Name of affiliates	Country
	381	CHEIL INDUSTRIES ITALY SRL	Italy
	382	Samsung Fashion Trading Co.,Ltd	China
	383	SAMSUNG C&T CORPORATION VIETNAM CO., LTD	Vietnam
	384	Samsung C&T Corporation UEM Construction JV Sdn Bhd	Malaysia
	385	Welstory Hungary Kft.	Hungary
	386	WELSTORY VIETNAM COMPANY LIMITED	Vietnam
	387	Shanghai Ever-Hongjun Business Mgt Service Co.,LTD	China
	388	Shanghai Welstory Food Company Limited	China
	389	LANGUAGE TESTING INTERNATIONAL, INC.	USA
	390	PENGTAI CHINA CO.,LTD.	China
	391	PengTai Taiwan Co., Ltd.	Taiwan
	392	PENGTAI E-COMMERCE CO.,LTD	China
	393	Beijing Pengtai Borui E-commerce Co.,Ltd.	China
	394	Medialytics Inc.	China
	395	Beijing Pengtai Baozun E-commerce Co., Ltd.	China
	396	iMarket China Co., Ltd.	China
	397	Samsung Securities (America), Inc.	USA
	398	Samsung Securities (Europe) Limited.	United Kingdom
	399	Samsung Securities (Asia) Limited.	Hong Kong
	400	Samsung SDS America, Inc.	USA
	401	SAMSUNG SDS GSCL Canada., Ltd.	Canada
	402	Samsung SDS Europe, Ltd.	United Kingdom
	403	Samsung SDS Global SCL Hungary, Kft.	Hungary
	404	Samsung SDS Global SCL Slovakia, S.R.O.	Slovakia
	405	Samsung SDS Global SCL Poland Sp. Z.o.o.	Poland
	406	Samsung GSCL Sweden AB	Sweden
	407	Samsung SDS Global SCL France SAS	France
	408	Samsung SDS Global SCL Italy S.R.L. A Socio Unico	Italy
	409	Samsung SDS Global Supply Chain Logistics Spain S.L.U	Spain
	410	Samsung SDS Global SCL Netherlands Cooperatief U.A.	Netherlands
	411	Samsung SDS Global SCL Germany GmbH	Germany
	412	Samsung SDS Global SCL Romania S.R.L	Romania
	413	Samsung SDS Asia Pacific Pte, Ltd.	Singapore
	414	Samsung Data Systems India Private Limited	India
	415	Samsung SDS Vietnam Co., Ltd.	Vietnam
	416	PT. Samsung SDS Global SCL Indonesia	Indonesia
	417	Samsung SDS Global SCL Philippines Co., Ltd.Inc.	Philippines
	418	Samsung SDS Global SCL Thailand Co.,Ltd	Thailand
	419	SAMSUNG SDS MALAYSIA SDN. BHD.	Malaysia
	420	Samsung SDS Global SCL Australia Pty.,Ltd.	Australia
	421	SDS-ACUTECH CO., Ltd.	Thailand
	422	ALS SDS Joint Stock Company	Vietnam
	423	SDS-MP Logistics Joint Stock Company	Vietnam
	424	Samsung SDS China Co., Ltd.	China
	425	Samsung SDS Global SCL Hong Kong Limited	Hong Kong
	426	SAMSUNG SDS Global SCL Egypt	Egypt
	427	Samsung SDS Global SCL South Africa (PTY) Ltd.	South Africa
	428	Samsung SDS Global SCL Nakliyat ve Lojistik Anonim Sirketi	Turkiye

Listing	No. of affiliates	Name of affiliates	Country
	429	Samsung SDS Global Supply Chain Logistics Middle East DWC-LLC	Utd.Arab Emir.
	430	Samsung SDS Latin America Tecnologia E Logistica LTDA.	Brazil
	431	INTE-SDS Logistics S.A. de C.V.	Mexico
	432	Samsung SDS Rus Limited Liability Company	Russian Fed.
	433	Samsung SDS Mexico, S.A. DE C.V.	Mexico
	434	Samsung SDS Global SCL Panama S.A.	Panama
	435	Samsung SDS Global SCL Chile Limitada	Chile
	436	Samsung SDS Global SCL Peru S.A.C	Peru
	437	Samsung SDS Global SCL Colombia S.A.S	Colombia
	438	Samsung E&A America Inc.	USA
	439	Samsung Project Management Inc.	Canada
	440	Samsung E&A Hungary Co. Ltd.	Hungary
	441	Samsung Engineering Italy S.R.L.	Italy
	442	Samsung E&A Malaysia SDN. BHD.	Malaysia
	443	PT Samsung Engineering Indonesia Co., Ltd.	Indonesia
	444	Samsung E&A (Thailand) Co., Ltd.	Thailand
	445	Samsung E&A India Private Limited	India
	446	Samsung E&A Vietnam Co., Ltd.	Vietnam
	447	GLOBAL MODULE CENTER JOINT STOCK COMPANY	Vietnam
	448	Samsung E&A Global Private limited	India
	449	Samsung E&A Shanghai Co., Ltd.	China
	450	Samsung E&A Xi' an Co., Ltd.	China
	451	Samsung E&A Arabia Co., Ltd.	Saudi Arabia
	452	Muharraq Wastewater Services Company W.L.L.	Bahrain
	453	Muharraq STP Company B.S.C.	Bahrain
	454	Muharraq Holding Company 1 Ltd.	Utd.Arab Emir.
	455	SAMSUNG ENGINEERING NEC COMPANY LIMITED	Saudi Arabia
	456	Samsung E&A Mexico S.A. de C.V.	Mexico
	457	Samsung Engineering Trinidad Co., Ltd.	Trinidad,Tobago
	458	Samsung E&A Manzanillo S.A. De C.V. (SIMA)	Mexico
	459	Grupo Samsung E&A Mexico, S.A. De C.V. (GSIM)	Mexico
	460	Samsung E&A Energia S.A. De C.V.	Mexico
	461	Samsung E&A Bolivia S.A	Bolivia
	462	Samsung E&A DUBA S.A. De C.V.	Mexico
	463	Samsung Engineering Kazakhstan L.L.P.	Kazakhstan
	464	Samsung E&A America Construction LLC	USA
	465	Samsung E&A Louisiana Construction LLC	USA
	466	Samsung EPC Company Ltd.	Saudi Arabia
	467	Muharraq Holding Company 2 Ltd.	Utd.Arab Emir.
	468	Asociados Constructores DBNR, S.A. de C.V.	Mexico
	469	S-1 CORPORATION HUNGARY LLC	Hungary
	470	S-1 CORPORATION VIETNAM CO., LTD	Vietnam
	471	Samsung Beijing Security Systems	China
	472	Pengtai Greater China Company Limited	Hong Kong
	473	PENGTAI INTERACTIVE ADVERTISING CO.,LTD	China
	474	Cheil USA Inc.	USA
	475	Cheil Central America Inc.	USA
	476	Iris Worldwide Holdings Limited	United Kingdom

Listing	No. of affiliates	Name of affiliates	Country
	477	CHEIL EUROPE LIMITED	United Kingdom
	478	Cheil Germany GmbH	Germany
	479	Cheil France SAS	France
	480	CHEIL SPAIN S.L	Spain
	481	Cheil Benelux B.V.	Netherlands
	482	Cheil Nordic AB	Sweden
	483	Cheil India Private Limited	India
	484	Cheil (Thailand) Ltd.	Thailand
	485	Cheil Singapore Pte. Ltd.	Singapore
	486	CHEIL VIETNAM COMPANY LIMITED	Vietnam
	487	Cheil Integrated Marketing Philippines, Inc.	Philippines
	488	CHEIL MALAYSIA SDN. BHD.	Malaysia
	489	Cheil New Zealand Limited	New Zealand
	490	Cheil Worldwide Australia Pty Ltd	Australia
	491	CHEIL CHINA	China
	492	Cheil Hong Kong Ltd.	Hong Kong
	493	Caishu (Shanghai) Business Consulting Co., Ltd	China
	494	Cheil MEA FZ-LLC	Utd.Arab Emir.
	495	Cheil South Africa (Pty) Ltd	South Africa
	496	CHEIL KENYA LIMITED	Kenya
	497	Cheil Communications Nigeria Ltd.	Nigeria
	498	Cheil Worldwide Inc./Jordan LLC.	Jordan
	499	Cheil Ghana Limited	Ghana
	500	Cheil Egypt LLC	Egypt
	501	Cheil Maghreb LLC	Morocco
	502	Cheil Brasil Comunicacoes Ltda.	Brazil
	503	Cheil Mexico, S.A. de C.V.	Mexico
	504	Cheil Chile SpA.	Chile
	505	Cheil Peru S.A.C.	Peru
	506	CHEIL ARGENTINA S.A.	Argentina
	507	Cheil Rus LLC	Russian Fed.
	508	Cheil Ukraine LLC	Ukraine
	509	Cheil Kazakhstan LLC	Kazakhstan
	510	Samsung Hospitality America Inc.	USA
	511	Shilla Travel Retail Pte. Ltd.	Singapore
	512	Samsung Shilla Business Service Beijing Co., Ltd.	China
	513	Shilla Travel Retail Hong Kong Limited	Hong Kong
	514	HDC SHILLA (SHANGHAI) CO., LTD	China
	515	Samsung Hospitality U.K. Ltd.	United Kingdom
	516	Samsung Hospitality Europe GmbH	Germany
	517	SAMSUNG HOSPITALITY ROMANIA SRL	Romania
	518	Samsung Hospitality Vietnam Co., Ltd.	Vietnam
	519	Samsung Hospitality Philippines Inc.	Philippines
	520	Samsung Hospitality India Private Limited	India
	521	Samsung Venture Investment (Shanghai) Co., Ltd.	China
	522	Iris (USA) Inc.	USA
	523	Iris Atlanta, Inc.	USA
	524	89 Degrees, Inc.	USA

Listing	No. of affiliates	Name of affiliates	Country
	525	The Barbarian Group LLC	USA
	526	McKinney Ventures LLC	USA
	527	Lockard & Wechsler LLC	USA
	528	Iris Nation Worldwide Limited	United Kingdom
	529	Iris Americas, Inc.	USA
	530	Irisnation Latina, S. de R.L. de C.V.	Mexico
	531	Pricing Solutions Ltd	Canada
	532	Iris London Limited	United Kingdom
	533	Iris Promotional Marketing Ltd	United Kingdom
	534	Iris Ventures 1 Limited	United Kingdom
	535	Founded Partners Limited	United Kingdom
	536	Iris Digital Limited	United Kingdom
	537	Iris Ventures (Worldwide) Limited	United Kingdom
	538	WDMP Limited	United Kingdom
	539	Iris Services Limited Dooel Skopje	Macedonia
	540	Irisnation Singapore Pte. Ltd.	Singapore
	541	Iris Worldwide Integrated Marketing Private Limited	India
	542	Iris Worldwide (Thailand) Limited	Thailand
	543	Iris Partners LLP	United Kingdom
	544	Holdings BR185 Limited	Brit.Virgin Is.
	545	Iris Germany GmbH	Germany
	546	Founded, Inc.	USA
	547	Pepper NA, Inc.	USA
	548	Beattie McGuinness Bungay Limited	United Kingdom
	549	Cheil Italia S.r.l	Italy
	550	Cheil Austria GmbH	Austria
	551	Centrade Integrated SRL	Romania
	552	Centrade Cheil HU Kft.	Hungary
	553	Centrade Cheil Adriatic D.O.O.	Serbia/Monten.
	554	Experience Commerce Software Private Limited	India
	555	Diginfluenz Private Limited	India
	556	PT. CHEIL WORLDWIDE INDONESIA	Indonesia
	557	Cheil Philippines Inc.	Philippines
	558	Shilla Retail Plus Pte. Ltd.	Singapore
	559	Tianjin Samsung International Travel Service Co., Ltd	China
	560	Shilla Retail Limited	Macau
	561	BNY Trading Hong Kong Limited	Hong Kong
	562	LOFAN LIMITED	Hong Kong
	563	KINGMA LIMITED	Hong Kong
	564	One Agency FZ-LLC	Utd.Arab Emir.
	565	One RX Project Management Design and Production Limited Company	Turkiye
	566	ONE RETAIL EXPERIENCE KOREA LIMITED	United Kingdom
	567	One RX India Private Limited	India
	568	ONE RX INTERIOR DECORATION L.L.C	Utd.Arab Emir.
	569	ONE AGENCY PRINTING L.L.C	Utd.Arab Emir.
	570	Brazil 185 Participacoes Ltda	Brazil
	571	Iris Router Marketing Ltda	Brazil

### 3. Equity investments in other corporations (Details)

[As of December 31, 2024]

(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		Valuatio n	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	0	0	0	17,693	23.7	445,244	12,792,403	703,216
Listed	Samsung SDI	1977.01	Management Participation	304	13,463	19.6	1,242,605	0	0	0	13,463	19.6	1,242,605	40,988,647	575,512
Listed	Samsung Heavy Industries	1977.09	Management Participation	125	134,027	15.2	1,038,711	0	0	475,797	134,027	15.2	1,514,508	17,194,637	53,877
Listed	Hotel Shilla	1979.12	Management Participation	252	2,005	5.1	131,108	0	0	-57,134	2,005	5.1	73,974	3,813,886	-61,501
Listed	Cheil Worldwide	1988.09	Management Participation	185	29,038	25.2	491,599	0	0	0	29,038	25.2	491,599	3,317,857	208,248
Listed	Samsung SDS	1992.07	Management Participation	6,160	17,472	22.6	560,827	0	0	0	17,472	22.6	560,827	13,238,330	789,501
Listed	Samsung BioLogics	2011.04	Management Participation	30,000	22,217	31.2	1,595,892	0	0	0	22,217	31.2	1,595,892	17,330,966	1,077,210
Unlisted	Samsung Display	2012.04	Management Participation	16,009,547	221,969	84.8	18,509,307	0	0	0	221,969	84.8	18,509,307	67,541,382	5,989,037
Unlisted	STECO	1995.06	Management Participation	24,000	2,590	70	35,861	0	0	0	2,590	70	35,861	142,277	466
Unlisted	SEMES	1992.12	Management Participation	1,000	2,173	91.5	71,906	0	0	0	2,173	91.5	71,906	2,365,712	144,665
Unlisted	Samsung Electronics Service	1998.01	Management Participation	30,000	6,000	99.3	48,121	0	0	0	6,000	99.3	48,121	743,875	1,321
Unlisted	Samsung Electronics Sales	2000.12	Management Participation	3,100	1,767	100	247,523	0	0	0	1,767	100	247,523	1,221,556	1,770
Unlisted	Samsung Electronics Logitech	1999.04	Management Participation	76	1,011	100	46,669	0	0	0	1,011	100	46,669	491,486	20,605
Unlisted	Samsung Medison	2011.02	Management Participation	286,384	87,350	68.5	464,232	0	0	13,416	87,350	68.5	477,648	761,774	80,568
Unlisted	Samsung Global Research	1991.05	Management Participation	320	3,576	29.8	24,942	0	0	0	3,576	29.8	24,942	221,095	622
Unlisted	Samsung Venture Investment	1999.11	Management Participation	4,900	980	16.3	32,286	0	0	3,967	980	16.3	36,253	229,783	23,689
Unlisted	SVIC #21	2011.11	Management Participation	19,800	0	99	99	0	0	0	0	99	99	90,275	13,843
Unlisted	SVIC #22	2011.11	Management Participation	19,800	0	99	14,870	0	-2,495	0	0	99	12,375	14,647	-271
Unlisted	SVIC #26	2014.11	Management Participation	19,800	1	99	60,803	0	-3,237	0	1	99	57,565	21,788	-2,574

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 #28	2015.02	Management Participation	7,425	0	99	27,566	0	-27,467	0	0	99	99	214,080	-46,095
Unlisted	SVIC #32	2016.08	Management Participation	19,800	1	99	119,364	0	-19,256	0	1	99	100,109	182,202	-21,607
Unlisted	SVIC #33	2016.11	Management Participation	4,950	1	99	112,524	0	0	0	1	99	112,524	280,271	-34,802
Unlisted	SVIC #42	2018.11	Management Participation	4,950	0	99	44,444	0	-4,058	0	0	99	40,386	29,234	336
Unlisted	SVIC #45	2019.05	Management Participation	19,800	2	99	158,746	0	-17,573	0	1	99	141,174	134,945	-23,067
Unlisted	SVIC #52	2021.05	Management Participation	9,900	0	99	49,599	0	5,821	0	1	99	55,420	61,790	-21,264
Unlisted	SVIC #56	2021.11	Management Participation	22,084	1	99	56,516	0	-416	0	1	99	56,100	48,895	-6,751
Unlisted	SVIC #57	2022.08	Management Participation	14,850	0	99	41,491	0	35,333	0	1	99	76,824	67,907	-4,956
Unlisted	Semiconductor Growth Fund	2017.03	Management Participation	500	32,306,980	66.7	32,307	-16,785,792	-16,786	0	15,521,188	66.7	15,521	34,169	10,607
Unlisted	System LSI Mutual benefit private equity trust	2020.04	Management Participation	25,000	50,000,000	62.5	50,000	-12,500,000	-12,500	0	37,500,000	62.5	37,500	59,999	192
Unlisted	Semiconductor Ecosystem Fund	2023.07	Management Participation	500	500,000	66.7	500	-499,985	15,000	0	16	100	15,500	22,754	-509
Unlisted	Stellar Forest of Hope	2022.12	Management Participation	900	180	100	900	0	0	0	180	100	900	9,008	1,263
Listed	Rainbow Robotics	2023.01	Management Participation	58,982	2,854	14.8	58,982	0	0	0	2,854	14.8	58,982	139,174	2,709
Listed	iMarket Korea	2000.12	Management Participation	1,900	647	1.9	5,560	0	0	-382	647	1.9	5,179	1,279,968	34,314
Listed	KT Skylife	2001.12	Simple Investment	3,344	240	0.5	1,421	0	0	-287	240	0.5	1,134	1,040,241	-156,079
Listed	Mona Yongpyong	2007.05	Simple Investment	1,869	400	0.8	1,220	0	0	64	400	0.8	1,284	1,013,467	8,801
Listed	ATech Solution	2009.11	Simple Investment	26,348	1,592	15.9	17,241	0	0	-8,438	1,592	15.9	8,804	285,318	-966
Listed	Wonik Holdings	2013.12	Management Participation	15,411	1,759	2.3	5,928	0	0	-1,443	1,759	2.3	4,486	1,894,333	-57,317
Listed	Wonik IPS	2016.04	Management Participation	16,214	1,851	3.8	62,839	0	0	-21,471	1,851	3.8	41,368	1,124,147	20,748
Listed	Dongjin Semichem	2017.11	Management Participation	48,277	2,468	4.8	95,507	0	0	-43,929	2,468	4.8	51,579	2,016,989	143,485

Listing	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Owner ship (%)	Book Value	Qty	Amount	Valuation	Qty	Owner ship (%)	Book Value	Total Asset	Net Income (Loss)
Listed	Soulbrain	2020.07	Management Participation	24,866	437	5.6	132,951	0	0	-60,615	437	5.6	72,336	1,169,754	122,093
Listed	S&S Tech	2020.08	Management Participation	65,933	1,716	8	77,740	0	0	-33,807	1,716	8	43,933	297,032	30,314
Listed	YC Corporation	2020.08	Management Participation	47,336	9,602	11.7	47,864	0	0	50,168	9,602	11.7	98,033	576,945	13,114
Listed	KCTech	2020.11	Management Participation	20,720	1,022	4.9	27,395	0	0	-767	1,022	4.9	26,629	549,141	52,686
Listed	LOTVacuum	2020.11	Management Participation	18,990	1,268	7.1	25,544	0	0	-14,958	1,268	7.1	10,585	339,223	2,437
Listed	Newpower	2020.11	Management Participation	12,739	2,141	4.9	11,240	0	0	-1,777	2,141	4.9	9,463	930,382	22,189
Listed	Fine Semitech	2021.03	Management Participation	43,009	1,523	7	37,541	0	0	-13,585	1,523	7	23,956	504,554	-3,242
Listed	DNF	2021.08	Management Participation	20,964	810	7	19,400	0	0	-12,256	810	7	7,144	161,916	631
Listed	Marvell Technology	2021.10	Simple Investment	11,705	173	0	13,468	0	0	14,651	173	0	28,119	29,700,615	-1,206,338
Listed	SoundHound	2016.12	Simple Investment	7,059	1,703	0.9	4,655	0	0	45,011	1,703	0.9	49,666	814,311	-478,011
Unlisted	The Korea Economic Daily	1987.05	Simple Investment	150	72	0.4	365	0	0	0	72	0.4	365	691,199	29,347
Unlisted	Korea Business Banking	1995.01	Simple Investment	5,000	1,000	17.2	2,964	0	0	0	1,000	17.2	2,964	87,279	1,042
Unlisted	Cyber Bank	2000.12	Simple Investment	8,000	1,083	7.5	-	0	0	0	1,083	7.5	-	-	0
Unlisted	FineChips	2001.12	Simple Investment	10	2	3.3	10	0	0	0	2	3.3	10	18,222	1,629
Unlisted	Inkel	2006.11	Simple Investment	130	0	0	0	0	0	0	0	0	0	7,848	-4,058
Unlisted	Intellectual Discovery	2011.05	Simple Investment	5,000	357	10.7	1,922	0	0	0	357	10.7	1,922	71,900	2,188
Unlisted	Maltani Corp.	2012.04	Simple Investment	16,544	45	15	7,891	0	0	191	45	15	8,082	93,407	1,654
Unlisted	Pantech	2013.06	Simple Investment	53,000	53,000	10	-	0	0	0	53,000	10	-	-	0
Unlisted	AI Research Institute	2016.07	Simple Investment	3,000	600	14.3	3,000	0	0	0	600	14.3	3,000	2,765	1,417
Unlisted	Mico Ceramics	2020.11	Management Participation	21,667	747	13.7	33,973	0	0	15,821	747	13.7	49,794	358,346	63,322
Unlisted	Shinsung Eng & Construction	2010.07	Simple Investment	1	0	0	0	0	0	0	-	-	-	-	0
Unlisted	Woobang	2010.07	Simple Investment	-	1	0	0	0	0	0	1	0	0	621,421	-50,282

Listing	Name of Company	Acquisition Date	Objective	Acquisition Cost	Beginning Balance			Increase/Decrease			Ending Balance			Current Financial Stats	
					Qty	Own er ship (%)	Book Value	Acquisition/Disposal		Valuation	Qty	Own er ship (%)	Book Value	Total Asset	Net Income (Loss)
								Qty	Amount						
Unlisted	Sambo Computer	2012.09	Simple Investment	-	0	0	0	0	0	0	0	0	0	47,298	-830
Unlisted	Daewoo Development	2012.12	Simple Investment	-	0	0	0	0	0	0	0	0	0	117,590	-30,260
Unlisted	Daewoo Songdo Development	2012.12	Simple Investment	-	9	0	0	0	0	0	9	0	0	19,369	-350
Unlisted	Zyle Motor Sales	2012.12	Simple Investment	-	1	0	0	0	0	0	1	0	0	284,044	-43,064
Unlisted	Sungwon Construction	2014.04	Simple Investment	-	1	0	0	-1	0	0	-	-	-	-	0
Unlisted	Inhee	2014.04	Simple Investment	-	0	0.1	0	0	0	0	0	0.1	0	2,457	301
Unlisted	JNT	2011.02	Simple Investment	1,800	0	24	1,240	0	0	0	0	24	1,240	2,872	699
Unlisted	L&S	2012.07	Simple Investment	848	-	7.5	1	0	-1	0	-	-	-	-	0
Unlisted	Bearport Resort	2022.04	Simple Investment	-	51	0.5	0	0	0	0	51	0.5	0	115,380	-9,845
Unlisted	SEA	1978.07	Management Participation	59,362	492	100	17,166,557	0	0	0	492	100	17,166,557	50,777,503	1,628,652
Unlisted	SECA	1992.08	Management Participation	3,823	0	100	90,922	0	0	0	0	100	90,922	1,231,281	-17,001
Unlisted	SEDA	1994.01	Management Participation	13,224	77,205,709	87	647,620	0	0	0	77,205,709	87	647,620	4,679,383	208,102
Unlisted	SEM	1995.07	Management Participation	3,032	3,837	63.6	165,638	0	0	0	3,837	63.6	165,638	2,017,910	125,857
Unlisted	SELA	1989.04	Management Participation	319	40	100	86,962	0	0	0	40	100	86,962	832,404	55,515
Unlisted	SEASA	1996.06	Management Participation	4,696	21,854	98	6,779	0	0	0	21,854	98	6,779	136,040	8,755
Unlisted	SECH	2002.12	Management Participation	597	-	4.1	597	0	0	0	-	4.1	597	557,617	20,574
Unlisted	SEUK	1995.07	Management Participation	33,908	109,546	100	433,202	0	0	0	109,546	100	433,202	3,267,763	181,457
Unlisted	SEL	1998.12	Management Participation	8,280	4,393	100	-	0	0	0	4,393	100	-	8,099	0
Unlisted	SEHG	1982.02	Management Participation	28,042	-	100	354,846	0	0	0	-	100	354,846	623,788	124,414
Unlisted	SEF	1991.08	Management Participation	230	2,700	100	234,115	0	0	0	2,700	100	234,115	1,311,394	79,382

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	143,181	0	0	0	677	100	143,181	1,087,941	60,439
Unlisted	SESA	1989.01	Management Participation	3,276	8,021	100	142,091	0	0	0	8,021	100	142,091	1,261,660	59,023
Unlisted	SEP	1982.09	Management Participation	204	1,751	100	37,616	0	0	0	1,751	100	37,616	320,920	12,505
Unlisted	SEH	1991.05	Management Participation	1,954	753	100	650,157	0	0	0	753	100	650,157	1,636,153	134,559
Unlisted	SELS	1991.05	Management Participation	18,314	1,306	100	24,288	0	0	0	1,306	100	24,288	1,928,760	-12,249
Unlisted	SEBN	1995.07	Management Participation	236	539,138	100	914,751	0	0	0	539,138	100	914,751	1,894,968	12,514
Unlisted	SEEH	2008.01	Management Participation	4,214	-	100	1,369,992	0	0	0	-	100	1,369,992	9,093,393	195,012
Unlisted	SENA	1992.03	Management Participation	392	1,000	100	69,372	0	0	0	1,000	100	69,372	699,271	38,544
Unlisted	SESK	2002.06	Management Participation	8,976	-	55.7	263,767	0	0	0	-	55.7	263,767	1,196,202	90,937
Unlisted	SEPOL	1996.04	Management Participation	5,462	106	100	78,267	0	0	0	106	100	78,267	1,011,196	94,630
Unlisted	SEAG	2002.01	Management Participation	40	-	100	32,162	0	0	0	-	100	32,162	609,920	31,276
Unlisted	SERC	2006.01	Management Participation	24,877	-	100	188,290	0	0	0	-	100	188,290	763,783	40,174
Unlisted	SERK	2007.07	Management Participation	4,600	-	100	204,555	0	0	0	-	100	204,555	1,004,032	62,772
Unlisted	SEO	1997.01	Management Participation	120	0	100	-10,043	0	10,043	0	-	-	-	-	0
Unlisted	SGE	1995.05	Management Participation	827	0	100	32,836	0	0	0	0	100	32,836	1,226,902	-6,997
Unlisted	SEEG	2012.07	Management Participation	23	-	0.1	39	0	0	0	-	0.1	39	1,110,704	-167,860
Unlisted	SSA	1998.12	Management Participation	263	2,000	100	32,622	0	0	0	2,000	100	32,622	565,625	33,541
Unlisted	SAPL	2006.07	Management Participation	793	877,133	100	981,483	0	0	0	877,133	100	981,483	31,226,978	5,326,248
Unlisted	SME	2003.05	Management Participation	4,796	17,100	100	7,644	0	0	0	17,100	100	7,644	712,846	27,489
Unlisted	SDMA	1995.03	Management Participation	21,876	71,400	75	18,741	0	0	0	71,400	75	18,741	31,018	-23
Unlisted	SEMA	1989.09	Management Participation	4,378	16,247	100	103,402	0	0	0	16,247	100	103,402	247,849	24,242
Unlisted	SAVINA	1995.01	Management Participation	5,839	-	100	28,365	0	0	0	-	100	28,365	107,908	16,441

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	SEIN	1991.08	Management Participation	7,463	46	100	118,909	0	0	0	46	100	118,909	1,260,299	151,650
Unlisted	TSE	1988.01	Management Participation	1,390	11,020	91.8	279,163	0	0	0	11,020	91.8	279,163	2,637,138	166,928
Unlisted	SEAU	1987.11	Management Participation	392	53,200	100	111,964	0	0	0	53,200	100	111,964	619,217	57,473
Unlisted	SIEL	1995.08	Management Participation	5,414	216,787	100	75,263	0	0	0	216,787	100	75,263	9,561,708	1,408,392
Unlisted	SRI-Bangalore	2005.05	Management Participation	7,358	17	100	31,787	0	0	0	17	100	31,787	669,124	80,454
Unlisted	SJC	1975.12	Management Participation	273	1,560	100	253,108	0	0	0	1,560	100	253,108	1,695,083	1,598
Unlisted	SRJ	1992.08	Management Participation	3,120	122	100	117,257	0	-115,775	0	122	100	1,482	118,750	2,784
Unlisted	SCIC	1996.03	Management Participation	23,253	-	100	640,452	0	0	0	-	100	640,452	16,111,528	300,719
Unlisted	SEHK	1988.09	Management Participation	349	274,250	100	79,033	0	0	0	274,250	100	79,033	1,002,962	29,140
Unlisted	SET	1994.11	Management Participation	456	27,270	100	112,949	0	0	0	27,270	100	112,949	2,411,145	62,255
Unlisted	TSEC	1993.04	Management Participation	15,064	-	48.2	103,134	0	-103,134	0	-	-	-	-	0
Unlisted	SSEC	1995.04	Management Participation	32,128	-	69.1	130,551	0	0	0	-	69.1	130,551	832,004	213,826
Unlisted	SESC	2002.09	Management Participation	5,471	-	73.7	34,028	0	0	0	-	73.7	34,028	114,676	10,392
Unlisted	TSTC	2001.03	Management Participation	10,813	-	90	260,092	0	0	0	-	90	260,092	724,202	4,156
Unlisted	SSS	2001.01	Management Participation	1,200	-	100	19,189	0	0	0	-	100	19,189	6,467,878	468,408
Unlisted	SCS	2012.09	Management Participation	111,770	-	100	5,275,760	0	277,840	0	-	100	5,553,600	18,796,411	1,195,361
Unlisted	SSCX	2016.04	Management Participation	1,141	-	100	1,141	0	0	0	-	100	1,141	501,775	35,349
Unlisted	SESS	1994.12	Management Participation	18,875	-	100	504,313	0	0	0	-	100	504,313	987,955	89,820
Unlisted	TSLED	2012.04	Management Participation	119,519	-	100	119,519	0	0	0	-	100	119,519	285,028	23,417
Unlisted	SSCR	2006.09	Management Participation	3,405	-	100	9,332	0	0	0	-	100	9,332	87,983	19,468
Unlisted	TSST Japan	2004.03	Management Participation	1,639	30	49	-	0	0	0	30	49	-	238,955	0
Unlisted	STE	1996.01	Management Participation	4,206	2	49	-	0	0	0	2	49	-	7,816	0

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	Semiconductor Portal Inc.	2002.12	Simple Investment	38	0	1.2	10	0	0	0	0	1.2	10	2,069	9
Unlisted	Nanosys Inc.	2010.08	Simple Investment	4,774	2,000	0.6	-	-2,000	0	0	-	-	-	-	0
Unlisted	One-Blue, LLC	2011.07	Management Participation	1,766	-	16.7	1,766	0	0	0	-	16.7	1,766	18,997	151
Unlisted	Sentiance NV	2012.12	Simple Investment	3,422	7	7.2	3,422	0	0	-3,422	7	7.2	0	2,356	-3,956
Unlisted	Mantis Vision Ltd.	2014.01	Simple Investment	1,594	355	2.1	0	0	0	0	355	2.1	0	16,092	14,824
Unlisted	Leman Micro Devices SA	2014.08	Simple Investment	1,019	17	3.4	0	0	0	0	17	3.4	0	1,762	-215
Unlisted	Sensifree LTD	2016.01	Simple Investment	2,111	666	9.5	0	0	0	0	666	9.5	0	176	-248
Unlisted	Unispectral Ltd.	2016.02	Simple Investment	1,112	2,308	7.9	803	0	0	-803	2,308	7.9	0	2,431	-3,479
Unlisted	Quobyte, Inc.	2016.04	Simple Investment	2,865	729	11.8	0	0	0	0	729	11.8	0	4,126	-220
Unlisted	Afero, Inc.	2016.05	Simple Investment	5,685	723	5.5	5,685	0	0	-5,685	723	5.5	0	27,982	-9,839
Unlisted	Graphcore Limited	2016.06	Simple Investment	3,494	12,000	1.4	3,069	-12,000	-2,942	-128	-	-	-	-	0
Unlisted	Fasetto, Inc.	2019.01	Simple Investment	6,701	475	5.1	0	0	0	0	475	5.1	0	8,738	-19,733
Total					-	-	59,246,942	-29,799,778	18,399	338,201	133,148,682	-	59,603,542	-	-

- ※ Based on separate financial statements
- ※ Name of Company is referred to XII. Appendix 1. Subsidiaries subject to consolidated financial statements.
- ※ Ownership percentage is calculated based on the number of common shares issued
- ※ The Company measures financial instruments (equity stakes) in fair value in accordance with K-IFRS. The Company annually assesses if investment in subsidiaries or affiliates possess any indication of impairment and estimates the recoverable amount of assets to be impaired.
- ※ Due to difficulties in obtaining the most recent financial data, current financial status of Daewoo Songdo Development is as of December 31, 2017, Mantis Vision is as of December 31, 2021, Leman Micro Devices SA, Sensifree, Unispectral, Semiconductor Portal, Inkel and Mona Yongpyong are as of December 31, 2023, Quobyte is as of May 31, 2024, and Afero is as of November 30, 2024.

## 4. R&D results (detailed)

DX Division	
Research project	Details
<b>Visual Display</b>	
Neo QLED 8K ~March 2024	<ul style="list-style-type: none"> <li>□ Ultra high-resolution, slim 8K TV based on Mini LED technology (65 · 75 · 85")</li> <li>- QN900 (65 · 75 · 85 · 98") / QN800 (65 · 75 · 85") / QN700 (55 · 65 · 75")</li> <li>- QLED 8K resolution offers real-life viewing experience with enhanced contrast of sophisticated Mini LED</li> <li>- Offers immersive and realistic viewing experience with Neural Quantum Processor 8K</li> <li>- Offers spatial sound that envelops the space with OTS(Object Tracking Sound)</li> </ul>
Neo QLED 4K ~March 2024	<ul style="list-style-type: none"> <li>□ Mini LED-based products come in 4 series and up to 7 sizes (43 · 50 · 55 · 65 · 75 · 85 · 98")</li> <li>- Slim design by adopting Mini LED, premium look with bezel-less/metal design</li> <li>- New LED with Quantum Nano-Layer Multi-Cell structure, enabling slim design, high luminance efficiency, luminance profile control</li> <li>- Adjusts picture quality using AI fuctions based on user's preferences of genre-specific picture quality</li> <li>- Provides quick access and personalized recommendations with New Home, which offers convenient serviceability</li> </ul>
OLED TV ~March 2024	<ul style="list-style-type: none"> <li>□ Quantum-Dot-based self-emitting Display Flat 4K TV (55 · 65 · 77")</li> <li>- S95 (55 · 65 · 77"): OLED TV that provides the true value of TV, featuring QD-OLED display with 144Hz VRR, OLED Glare Free-True Reality quality, Infinity One Design (an ultra slim flat form factor equipped with top speaker), Object Tracking Sound, and ATMOS</li> <li>- S90 (55 · 65 · 77"): Provides picture quality of OLED Display featuring 144Hz VRR and immersive sound with Laser Slim Design featuring OTS Lite and ATMOS, strengthening Samsung OLED lineups beyond Neo QLED to enhance positioning in the premium TV market</li> <li>□ White OLED-based self-emitting Display Flat 4K TV (42 · 48 · 55 · 65 · 77 · 83")</li> <li>- S90 (42 · 48 · 55 · 65 · 77 · 83") : same features as above</li> <li>- S85 (55 · 65 · 77 · 83") : Features white OLED display—which has been prepared as a new lineup for OLED sales expansion and profit/loss improvement—and offers premium spatial sound with OTS Lite/ ATMOS and a contour design with sleek curves</li> </ul>
QLED TV ~March 2024	<ul style="list-style-type: none"> <li>□ Flat QLED 4K TV (32 · 43 · 50 · 55 · 60 · 65 · 70 · 75 · 82 · 85 · 98")</li> <li>- Flagship QLED maximizes viewing experience with unrivaled picture quality within 4K (AI/brightness/viewing angle) and sound quality (OTS)</li> <li>- Maximizes immersive experience with ideal brightness contrast, free viewing angle, life-like color, and optimal brightness</li> <li>- Optimizes viewing experience by identifying user context based on voice recognition and AI technologies</li> <li>- Convenient calibration of picture quality with the touch of a button from a mobile device without expensive, professional equipment</li> <li>- Upgraded gaming experience for casual gamers through Game Bar</li> </ul>
UHD TV ~March 2024	<ul style="list-style-type: none"> <li>□ Flat UHD TV (43 · 50 · 55 · 58 · 60 · 65 · 70 · 75 · 82 · 85 · 98")</li> <li>- UHD Smart TV with slim, bezel-less design provides colors close to real-life</li> <li>- UHD picture quality expresses picture quality of original content through Dynamic Crystal Color and Dual LED</li> <li>- Provides a multi-media screen experience, rich content, and complete smart experience via smart home experience</li> <li>- Enhanced Smart experiences with the addition of Game Hub, IoT Hub, Chat Together, Voice Ready, Daily+ and SmartThings Mobile Plugin functions</li> </ul>

## DX Division

Research project	Details
Lifestyle TV ~April 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> The SERO (43")<ul style="list-style-type: none"> <li>- Simple, modern vertical screen that rotates 360 degrees with flat-type speaker</li> <li>- Easily installed in any living space, mobile floor stand included</li> <li>- Significantly improved VoC compared to existing products with anti-glare/anti-reflective screen even for rotated form factor</li> </ul></li> <li><input type="checkbox"/> The Frame (32 · 43 · 50 · 55 · 65 · 75 · 85")<ul style="list-style-type: none"> <li>- Design resembles a real picture frame; completes a picture frame experience</li> <li>- Exhibit various famous paintings and pictures; adopted lifestyle design which blends in with the interior</li> <li>- Additional introduction of 85" to meet the needs for ultra-large Lifestyle products</li> <li>- Completes the Real Frame experience with the anti-glare/anti-reflective screen that shows a paper-like image</li> </ul></li> <li><input type="checkbox"/> The Serif (43 · 50 · 55 · 65")<ul style="list-style-type: none"> <li>- I-shaped serif font design; distinct from other products; works as beautiful interior design object</li> <li>- Additional introduction of 65" to expand the position of large screen products</li> <li>- Design that resembles a piece of furniture with the anti-glare/anti-reflective screen that shows a matte image</li> <li>- Offers a dark color option other than white (Ivy Green)</li> </ul></li> <li><input type="checkbox"/> The Terrace (55 · 65 · 75")<ul style="list-style-type: none"> <li>- Differentiated product tailored to a lifestyle of relaxing and enjoying entertainment outdoors</li> </ul></li> <li><input type="checkbox"/> The Premiere (100–130")<ul style="list-style-type: none"> <li>- Ultra-short-throw laser projector with high-resolution, providing a top-notch Smart UX/OTT experience</li> <li>- Complements any environment with blended design, can be placed directly in front of a wall and has an easily adjustable screen size.</li> <li>- Complete experience of our TV models including the differentiated picture quality and sound</li> </ul></li> <li><input type="checkbox"/> The Freestyle (30–100") / Freestyle Rev (30~100")<ul style="list-style-type: none"> <li>- Movable Smart Screen that enables users to enjoy content anytime, anywhere</li> <li>- Easy to set up in various locations and provides an optimal viewing experience regardless of angle/distance (Auto Focus/Auto Keystone)</li> <li>- Added usability via the basic cradle, enabling easy placement in various locations; and the socket adapter expands usability.</li> </ul></li> </ul>
Micro-LED TV ~December 2023	<ul style="list-style-type: none"> <li><input type="checkbox"/> Micro-LED Screen (76 · 89 · 101 · 114" TFT based)<ul style="list-style-type: none"> <li>- Next-generation flagship model that satisfies premium customer and distribution needs</li> <li>- Released completed version of TFT glass-based 12.7" module (pitch 0.51) microLED Screen</li> <li>- microLED Processor: creates vivid 3D picture quality based on AI scaling + HDR enhancing features</li> </ul></li> </ul>
Sound Bar ~March 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> Sound Bar Q990B<ul style="list-style-type: none"> <li>- Industry's first wireless ATMOS transmission from TV to soundbar</li> <li>- Provides the optimal Cinema True ATMOS just like in the cinema, utilizing all channels of TV and soundbar</li> <li>- Equipped with soundbar room-correction technology</li> </ul></li> </ul>
Monitor ~September 2023	<ul style="list-style-type: none"> <li><input type="checkbox"/> Smart monitor M80B (32")<ul style="list-style-type: none"> <li>- Ultra-slim, flat back, lifestyle design that adopts Warm White color</li> <li>- An in-box magnetic-mount webcam for video communication</li> <li>- Strengthened smart experiences (watching VOD/connecting mobile devices/PC-less function/IoT/communication/game)</li> </ul></li> <li><input type="checkbox"/> Gaming monitor G85NB (32")<ul style="list-style-type: none"> <li>- World's first UHD 240Hz 1ms (GTG) gaming monitor with premium gaming performance features (1000R Curved)</li> <li>- Odyssey Neo that offers a new level of picture quality experience (Mini LED; Quantum HDR2000)</li> </ul></li> <li><input type="checkbox"/> World's first 1000R large game screen G97NB (55")<ul style="list-style-type: none"> <li>- Offers top-notch immersive experience with a large screen-size without viewing-angle limitations—even near-field viewing angles—via 1000R; 16:9; 55" Big Curved Screen</li> <li>- Provides a new immersive experience, almost like sitting in the cockpit of a space shuttle, by allowing users to rotate the screen vertically and in any direction</li> <li>- Game-exclusive panel that offers a 4K 165Hz refresh rate and 1ms response time</li> </ul></li> <li><input type="checkbox"/> QD-OLED gaming monitor (G85SB 34")<ul style="list-style-type: none"> <li>- Exquisite expression of various colors with the combination of True RGB self-luminous display and quantum dot technology</li> <li>- Can play games with an extremely fast response time of 0.1ms and clear screen with 175Hz refresh rate</li> <li>- Implemented an all-in-one game streaming discovery platform, including cloud gaming and consoles, with the adoption of the Samsung Gaming Hub</li> </ul></li> <li><input type="checkbox"/> 5K ultra-high resolution monitor (S90PC 27")<ul style="list-style-type: none"> <li>- 5K (5120x2880) resolution that expresses more information, with at least 50% more pixels compared to a 4K monitor</li> <li>- Matte Display reduces glare without a monitor hood and eliminates distortion, thus protecting your eyesight</li> <li>- Equipped with thunderbolt 4 and miniDP; compatible with both MAC/Windows</li> <li>- "Smart Screen" can be customized to satisfy your work/daily life/space needs</li> </ul></li> <li><input type="checkbox"/> DUHD Flagship Gaming Monitor (G95NC 57")<ul style="list-style-type: none"> <li>- Allows users to experience maximum immersion with the new super large form factor (57") and ultra-high definition Dual UHD (7680X2160)</li> <li>- Can play games with a clear screen with 240Hz refresh rate and extremely fast 1 ms response time</li> </ul></li> </ul>

DX Division	
Research project	Details
Signage ~June 2023	<ul style="list-style-type: none"> <li><input type="checkbox"/> LCD-based B2B Smart Signage (LFD, Hotel TV, Video Wall, Outdoor, etc.) (13 · 24 · 32 · 43 · 49 · 50 · 55 · 65 · 75 · 85 · 98")</li> <li><input type="checkbox"/> Indoor/outdoor signage using LED</li> <li><input type="checkbox"/> All-in-one Kiosk (24"); all additional equipment embedded <ul style="list-style-type: none"> <li>- Payment platform for developing Tizen payment module and ordering app; antibacterial finishing</li> </ul> </li> </ul>
<b>Home appliances</b>	
Refrigerators ~December 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> 177cm one-door built-in fridge enters the European market <ul style="list-style-type: none"> <li>- Expanded lineup of built-in packages</li> <li>- Highest energy rating based on new standards</li> <li>- Secured superior capacity of the indirect cooling system</li> <li>- Differentiated features of fresh storage of food (high-humidity refrigeration) and temperature flexibility (freezer→refrigerator)</li> </ul> </li> <li><input type="checkbox"/> Address replacement demand and new demand for 48" refrigerators in the North American market <ul style="list-style-type: none"> <li>- Large capacity of 27.4cf for a built-in refrigerator</li> <li>- Differentiated Ice &amp; Water Solution (Auto Fill Water Pitcher; Dual Auto Ice Maker)</li> <li>- Soft-closing doors give the product an high-quality, luxurious ambience</li> </ul> </li> <li><input type="checkbox"/> Introduced a super-gap energy model in Korea (achieved first-class rating for its ultra-energy-efficiency; 22% achieved the first-class) <ul style="list-style-type: none"> <li>- Applies one of the world's most efficient compressor (W1; EER 9.3)</li> <li>- Reduced the SET heat load (with increased VIP Coverage)</li> <li>- Enhanced heat dissipation in machine room (additional side cooling on the comp side)</li> </ul> </li> <li><input type="checkbox"/> Global Wide BMF Refrigerator <ul style="list-style-type: none"> <li>- Offers high-efficiency energy rating, incorporates AI Energy mode, and saves energy cost</li> <li>- Expands usable interior space with SpaceMax, offering convenient storage</li> <li>- Offers smart services (e.g. automatic lighting adjustments by time of day) based on SmartThings</li> </ul> </li> <li><input type="checkbox"/> Custom Refrigerator for home specs in China home (W83cm) <ul style="list-style-type: none"> <li>- Enables seamless installation to fit perfectly in the kitchen with zero gap on both left/right sides to give a built-in look</li> <li>- Application of AI energy mode to reduce actual energy usage (China Energy Label Grade 1)</li> <li>- Provides specialize storage for food materials at optimal temperature and humidity with dry/wet boxes</li> <li>- Applies Wide Open, an automatic wide door opening feature</li> </ul> </li> <li><input type="checkbox"/> Refrigerator applying Peltier <ul style="list-style-type: none"> <li>- Achieves highest efficiency and maximum energy grade by applying Peltier and utilizing waste heat</li> <li>- Combines advantages of two cooling methods (compressor + Peltier) to create value <ul style="list-style-type: none"> <li>- Achieves energy savings of 30% for Energy Grade 1 (compared to the previous 22% savings for the same grade)</li> <li>- Offers additional useable interior space with more compact Peltier cooling system (875L → 900L)</li> </ul> </li> </ul> </li> <li><input type="checkbox"/> Built-In BMF refrigerator for European market <ul style="list-style-type: none"> <li>- Achieves highest-efficiency energy rating for large capacity (380L ↑) Built-In BMF in the European market</li> <li>- Applies AI Energy mode, reducing energy consumption by 10% or more compared to products of the same class</li> <li>- Offers full indirect cooling system and switch function from freezer mode to refrigerator mode</li> </ul> </li> <li><input type="checkbox"/> Introduced 4-door kimchi refrigerator equipped with subdivisions and maturing function in the Korean market <ul style="list-style-type: none"> <li>- Provides separate spaces for storing food ingredients and low temperature maturation <ul style="list-style-type: none"> <li>- Enhanced usability with various modes such as kimchi maturation, meat thawing, dough fermentation, etc.</li> </ul> </li> <li>- Introduced high-efficiency model with Grade 1 energy label based on revised energy standard</li> </ul> </li> <li><input type="checkbox"/> Introduced auto-open 4-door Kimchi refrigerator for Korean market <ul style="list-style-type: none"> <li>- Enhanced convenience in use with the application of an automatic door opening feature</li> <li>- Storage of various food ingredients is possible with odor reducing kimchi container <ul style="list-style-type: none"> <li>- Customized maturation space available for ripening, thawing, and fermentation</li> </ul> </li> </ul> </li> <li><input type="checkbox"/> TMF refrigerator for responding energy regulations in India <ul style="list-style-type: none"> <li>- Changes in external design (Flat Door applied)</li> <li>- AI Energy Mode applied (Wi-fi applied and integrated PBA reflected to all models)</li> </ul> </li> </ul>

DX Division	
Research project	Details
Washer ~December 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Grande AI 24kg washer <ul style="list-style-type: none"> <li>- 24kg, Flat Design (glass type)</li> <li>- Features pet-care cycle (removes stains, smell, and allergens)</li> <li>- Applied auto door opening (door opens automatically after the washing cycle ends)</li> </ul> </li> <li><input type="checkbox"/> BESPOKE Grande AI Onebody Top-Fit <ul style="list-style-type: none"> <li>- BESPOKE Grande AI all-in-one washer for Korean market</li> <li>- One-body design with 21 kg washer and 17 kg dryer all-in-one combo</li> <li>- Simple flat design</li> </ul> </li> <li><input type="checkbox"/> BESPOKE AI Washer-Dryer Combo <ul style="list-style-type: none"> <li>- ONE Solution: Convenient washing and drying without transferring laundry</li> <li>- AI Home: Easy operation with touch screen and voice-recognition</li> <li>- AI customized course: Operation of optimized course based on laundry type</li> </ul> </li> <li><input type="checkbox"/> SSEC 24" 9kg Slim Combo <ul style="list-style-type: none"> <li>- Space Max technology applied: Able to wash large 9 kg loads at once even in small living spaces</li> <li>- AI Energy Mode: Further reduction of electricity usage (reducing up to 70% when using AI Energy mode)</li> <li>- Ductless type Combo platform allows up to 50% reduction in drying time compared to existing Samsung models</li> <li>- Enhanced washing performance and user convenience with AI Wash, AI EcoBubble, Flex Auto Dispenser, etc.</li> </ul> </li> </ul>
Air conditioner ~December 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Increased revenue in the European market with an enhanced lineup that adopts the new EHS platform <ul style="list-style-type: none"> <li>- Low-frequency noise regulation: met limits for noise regulation of each European country, centering on Germany</li> <li>- Reinforced low-temperature performance: full heating performance at -25°C</li> <li>- High-temperature discharged water: discharged water of up to 70°C in a single heat pump cycle</li> <li>- Differentiated design: deep dark color 1 fan outdoor AC unit that harmoniously blends in with the living environment</li> </ul> </li> <li><input type="checkbox"/> BESPOKE wind-free air conditioner WindowFit <ul style="list-style-type: none"> <li>- Wind-free mode cools air without directly blowing wind into the room</li> <li>- Low-noise mode, with a 32dB level, reduces vibration and noise for better sleep</li> <li>- Selection of high efficient energy saving modes tailored to different situations</li> <li>- Enhanced cooling capabilities and larger fans enable stronger and more consistent cooling for a wider area</li> <li>- Safe and simple installation kit allows for a seamless installation</li> </ul> </li> <li><input type="checkbox"/> Infinite Line 1Way BESPOKE wind-free built-in air conditioner <ul style="list-style-type: none"> <li>- Ambient indirect edge lighting that creates a natural ambiance in the space</li> <li>- Wind-free on wider area with high-efficiency energy saving mode</li> <li>- 8-stage care system including for management of air quality and the inside of the air conditioner</li> <li>- AI energy mode for energy reduction tailored to different situations</li> </ul> </li> <li><input type="checkbox"/> New platform for the new Eco Heating System refrigerant (R290) for the European market <ul style="list-style-type: none"> <li>- Introduced a new refrigerant (R290) solution to comply with 2027 regulations</li> <li>- High-temperature discharged water (max 75°C) for boiler market's alternatives</li> <li>- Achieved low noise (minimum 35dBA)</li> </ul> </li> <li><input type="checkbox"/> Indoor EHS hydro units (integrated tank and wall-mounted) for European market <ul style="list-style-type: none"> <li>- Integrated energy management solution enhances customer experience and convenience (with energy saving based on CX-MDE)</li> <li>- Reduces annual power consumption by 15% compared to competitors thanks to AI Energy and industry's most efficient performance in water heating</li> <li>- Slim Fit design to capture growing demand for multi-family housing (e.g. apartment) in European market</li> </ul> </li> <li><input type="checkbox"/> Introduced new innovative high-efficiency platform for the main product of system air conditioners, DVM S <ul style="list-style-type: none"> <li>- Achieved top energy-efficiency rating in Canada, securing leadership in IEER efficiency compared to competitors' products</li> <li>- Achieved maximum capacity in Canadian market (maximum 20 tons vs. Company D's maximum 14 tons)</li> <li>- Maximum heating operation temperature range in Canada <ul style="list-style-type: none"> <li>• Samsung Electronics -30–24°C; Company D -25–16°C; Company X -30–16°C</li> </ul> </li> </ul> </li> <li><input type="checkbox"/> Secured RAC competitiveness through module efficiency enhancement and development of new outdoor unit <ul style="list-style-type: none"> <li>- Secured product competitiveness by incorporating smart features into all RAC models (AI Energy Saving) and converting them to DC</li> <li>- Enhanced cost competitiveness by reducing the number of parts</li> <li>- Secured volume competitiveness for 9/12K STD-grade outdoor units (reduced from the existing 104L to 85L, 19%↓)</li> <li>- Satisfied energy subsidy conditions for the Italian market</li> <li>- Twin compressor applied to reduce vibration and noise and expand operation range under low-load conditions</li> </ul> </li> <li><input type="checkbox"/> Introduced new R32 models to align with North American refrigerant regulation (effective from January 1, 2025, based on customs clearance) <ul style="list-style-type: none"> <li>- Applied Wi-Fi BLE function</li> <li>- Offers a comfortable dehumidification operation using humidity sensors</li> </ul> </li> </ul>

## DX Division

Research project	Details
Vacuums ~March 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Bespoke Jet AI Vacuum (up to 280W suction) <ul style="list-style-type: none"> <li>- Continued to enhance suction power and the original POD (Clean Station); increased market share</li> <li>- Enabled world's strongest suction power of up to 280W, which ensures powerful and hygienic cleaning</li> <li>- Auto setting of the optimal cleaning mode and provides maintenance guidance based on self-diagnosis</li> </ul> </li> <li><input type="checkbox"/> Jet Stick Vacuum 4.0 High-temperature cleaning brush <ul style="list-style-type: none"> <li>- Damp cloth brush that directly sprays high-temperature water onto stains</li> <li>- Effectively removes stains by directly spraying high-temperature water (approximately 50°C or above) onto the floor</li> <li>- Quick preheating (around 20 seconds) and at least 30 minutes of use with one battery</li> <li>- Enables convenient cleaning with lightweight damp cloth (1.51kg); no need to attach extra battery</li> </ul> </li> <li><input type="checkbox"/> Bespoke AI steam—wet &amp; dry robot vacuum for Korean market <ul style="list-style-type: none"> <li>- Able to separate wet and dry functions/AI-floor recognition/AI-object recognition</li> <li>- Rotational wet mop featuring automatic removal, with features preventing carpet contamination</li> <li>- Self-cleaning station; automatic mop cleaning/drying with steam sterilization</li> </ul> </li> </ul>
Range hoods February 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> Expanded lineup of premium hoods for home <ul style="list-style-type: none"> <li>- Unparalleled performance compared to existing products <ul style="list-style-type: none"> <li>• Optimal air flow with a smart monitoring ventilation system equipped with Triple Air Sensor</li> <li>• Industry's strongest suction power of 780CMH; industry's lowest noise (29dB; Quiet Mark certification)</li> </ul> </li> <li>- Improved user convenience by pairing with an electric range and by adopting stainless steel filters with easy-to-clean coatings</li> <li>- Design that reflects various needs of consumers (Bespoke colors)</li> <li>- Entered the B2C market with easy-to-install products and adoption of installment process</li> </ul> </li> </ul>
Inverter dehumidifier May 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> Ultra-quiet inverter dehumidifier with first-class energy efficiency rating in Korea <ul style="list-style-type: none"> <li>- Fast and strong large-capacity dehumidifier with a wide blade</li> <li>- Smart space care that keeps spaces from bathroom to dressing room pleasant</li> <li>- Dries a wide range of clothing—even delicate items—with swing blade</li> <li>- Simple design and compact size that fits anywhere</li> <li>- Low-noise mode that remains quiet throughout extended hours of use</li> </ul> </li> </ul>
Dishwasher June 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> In-house technology platform that has a competitive edge in the European/Korean markets <ul style="list-style-type: none"> <li>- Fit for Tall Tubs for the European market</li> <li>- Secured competitiveness with top-notch energy/water/low-noise specifications</li> <li>- Strengthened premium experiences via differentiating features, such as an automatic dispenser (for Korean detergents) and a simple UX</li> <li>- Differentiated specifications of Z-wash, Smart, and Flexible Basket</li> </ul> </li> </ul>
Gas oven ~August 2023	<ul style="list-style-type: none"> <li><input type="checkbox"/> Dacor 48" Pro-Range for North American market <ul style="list-style-type: none"> <li>- 48" all Gas Pro range introduction, Transitional(Chef) look design on the exterior adoption</li> <li>- Incorporated healthier cooking POD features, such as air fry and air sous-vide</li> <li>- Equipped with a 7" pop-up display</li> </ul> </li> <li><input type="checkbox"/> Dacor 48" Pro-Range (Dual Fuel) for North American market <ul style="list-style-type: none"> <li>- Introduced 48" Dual Fuel Pro range, with transitional (Chef) look design on the exterior</li> <li>- Dual fuel, with electricity for the oven and gas for the cooktop</li> <li>- Applied 6 burners + griddle cooktop specifications</li> <li>- Combination of small oven 12" (new platform) + big oven 36" (previous platform)</li> <li>- Provides Steam Assist function</li> </ul> </li> </ul>
Mobile eXperience	
Galaxy Foldable ~October 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy Z Fold 4 (August 2022) <ul style="list-style-type: none"> <li>- Screen: Main display 7.6"; cover display 6.2"</li> <li>- Size (W x H x D): (folded) 67.1mm x 155.1mm x 14.2–15.8mm; (unfolded) 130.1mm x 155.1mm x 6.3mm</li> <li>- Platform (H/W, S/W): Snapdragon 8+ Gen 1; Android 12.0; One UI 4.1.1</li> <li>- Improved camera experience via Nightography picture/video, high-resolution (50M/8K), Space Zoom (30X) lens</li> <li>- Easier and faster multi-tasking with the new Taskbar feature</li> <li>- Easy-to-use Multi window thanks to various entry points</li> <li>- AI-based recommendation of related features after recognition of text from an image</li> </ul> </li> <li><input type="checkbox"/> Galaxy Z Flip 4 (August 2022) <ul style="list-style-type: none"> <li>- Screen: Main display 6.7"; cover display 1.9"</li> <li>- Size (W x H x D): (folded) 71.9mm x 84.9mm x 15.9–17.1mm; (unfolded) 71.9mm x 165.2mm x 6.9mm</li> <li>- Platform (H/W, S/W): Snapdragon 8+ Gen 1; Android 12.0; One UI 4.1.1</li> <li>- Supports 25W charging and offers 3700mAh battery</li> <li>- Supports FlexCam, optimized for taking pictures/videos from various angles</li> <li>- Easy and quick switch to and manipulation of applications in Flex mode</li> <li>- Expanded the Cover screen function (simple reply, Samsung Wallet platform, increased Quick settings, etc.)</li> </ul> </li> </ul>

## DX Division

Research project	Details
	<ul style="list-style-type: none"> <li>□ Galaxy Z Fold5 (August 2023) <ul style="list-style-type: none"> <li>- Screen: Main display 7.6"; cover display 6.2"</li> <li>- Size (W x H x D): (folded) 67.1mm x 154.9mm x 13.4mm; (unfolded) 129.9mm x 154.9mm x 6.1mm</li> <li>- Platform (H/W, S/W): Snapdragon 8 Gen 2; Android 13, One UI 5.1.1</li> <li>- Slim, flat-folding design with the application of the Dumbbell Flex Hinge (waterdrop design)</li> <li>- Improved portability with an enhanced grip by reducing weight and thickness</li> <li>- Enhanced user experience by optimization for a large screen</li> <li>- Two-handed mode: Touch and hold the app/content with one hand and perform the action you like to carry out with the other <ul style="list-style-type: none"> <li>• Taskbar optimization: Shows more recently used apps (2→4 apps); automatically extends the navigation bar</li> <li>• Enhanced Multi window switch function: Able to switch popup windows into the multi-window easily on the home screen</li> <li>• Gaming optimization: Set the preferred resolution for most-used games in advance</li> </ul> </li> <li>- Enhanced durability: Strengthened shock absorption layers within display and changed structure of the hinge set</li> <li>- Slim and lightweight S Pen and Case: Reduced the thickness and weight of S Pen and its case by changing their shape</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Z Flip 5 (August 2023) <ul style="list-style-type: none"> <li>- Screen: Main display 6.7"; cover display 3.4"</li> <li>- Size (W x H x D): (folded) 71.9mm x 85.1mm x 15.1mm; (unfolded) 71.9mm x 165.1mm x 6.9mm</li> <li>- Platform (H/W, S/W): Snapdragon 8 Gen 2; Android 13.0; One UI 5.1.1</li> <li>- Enlarged cover screen (1.9" → 3.4") with an optimized design</li> <li>- Enhanced grip by reducing thickness and applying a slim, flat-folding design with a new hinge</li> <li>- Provided key functions for differentiated user experiences and strengthened usability with the large cover screen <ul style="list-style-type: none"> <li>• Provided Fast Scroll function for 13 key widgets (music, alarm, etc.) and main apps (Samsung Wallet, message reply)</li> <li>• Add more buttons (6→ 9) on the Quick Settings panel (Mobile Data, Screen Recording, Modes 3, etc.)</li> </ul> </li> <li>- Provided various photo effects and functions using the large cover screen</li> <li>- Enhanced durability: Strengthened shock absorption layers within display and changed structure of the hinge set</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Z Fold6 (July 2024) <ul style="list-style-type: none"> <li>- Enhanced product competitiveness by offering excellent portability with thin and light weight</li> <li>- Differentiated user experience through further advanced Galaxy AI</li> <li>- Screen (Main/Sub): 7.6" QXGA+(2160 x 1856) / 6.3" HD+ (968 x 2376)</li> <li>- Size (W x H x D): Open 132.6 x 153.5 x 5.6 mm; Close 68.1 x 153.5 x 12.1 mm; 239g</li> <li>- Platform (H/W, S/W): Snapdragon 8 Gen 3; Android 14; One UI 6.1.1</li> <li>- Innovative Galaxy Intelligence experiences with foldable form factor and Galaxy AI features <ul style="list-style-type: none"> <li>• Circle to Search, real-time translation, note/chat assist, etc.</li> <li>• Conversation/Translation Mode using dual screen, etc.</li> </ul> </li> <li>- Improved camera/gallery experience <ul style="list-style-type: none"> <li>• Photo/drawing assist, weather and time wallpapers, etc.</li> </ul> </li> <li>- Weight reduced by 14g; thickness (Close) reduced by 1.3mm; Cover Display increased by 0.1"</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Z Flip6 (July 2024) <ul style="list-style-type: none"> <li>- Enhanced product competitiveness by improving durability</li> <li>- Differentiated user experience through further advanced Galaxy AI</li> <li>- Screen (Main/Sub): 6.7" FHD+ (2640 x 1080) / 3.4" (720 x 748)</li> <li>- Size (W x H x D): Open 71.9 x 165.1 x 6.9 mm; Close 71.9 x 85.1 x 14.9 mm; 187g</li> <li>- Platform(H/W, S/W): Snapdragon 8 Gen 3; Android 14; One UI 6.1.1</li> <li>- Innovative Galaxy Intelligence experiences with foldable form factor and Galaxy AI features <ul style="list-style-type: none"> <li>• Circle to Search, real-time translation, photo/note/chat assist, etc.</li> <li>• Conversation Translation Mode using dual screen, Reply Recommendation in FlexWindow, etc.</li> </ul> </li> <li>- Applies high-resolution camera(Wide 50MP) and provides enhanced Flex camera experiences <ul style="list-style-type: none"> <li>• Provides clear details in low light/long distance</li> <li>• Offers convenient hands-free shooting with Auto Zoom function in Flex mode</li> </ul> </li> <li>- Improved durability of the display folding part</li> </ul> </li> </ul> <p style="text-align: center;">Strengthened screen durability and improved bending of the folding part</p>
	<ul style="list-style-type: none"> <li>□ Galaxy Z Fold SE (Oct 2024) <ul style="list-style-type: none"> <li>- Secured product competitiveness with wider and slimmer design and enhanced core specifications</li> <li>- Offers differentiated user experience through further evolved Galaxy AI</li> <li>- Screen (Main/Sub): 8.0" QXGA+(2184 x 1968) / 6.5" FHD+ (1080 x 2520)</li> <li>- Size (W x H x D): Open 142.6 x 157.9 x 4.9 mm, Close 72.8 x 157.9 x 10.6 mm, 236g</li> <li>- Platform(H/W, S/W): Snapdragon 8 Gen 3, Android 14, One UI 6.1.1</li> <li>- Enhanced basic usability of foldable form factor (compared to Z Fold6) <ul style="list-style-type: none"> <li>• Reduced weight by 3g, and thickness (closed) by 1.6mm, with Main Display +0.4", Cover Display +0.2"</li> <li>• Improved usability in closed state by enhancing aspect ratio on Cover Display (21:9)</li> </ul> </li> <li>- Equipped with 200MP ultra-high resolution camera, ensuring the best camera performance among foldables</li> <li>- Offers innovative Galaxy Intelligence experience through Galaxy AI utilizing wider display <ul style="list-style-type: none"> <li>• Circle to Search, Real-time Translation, Note/Chat Assist, Chat Translation Mode using dual screen, etc.</li> </ul> </li> </ul> </li> </ul>

## DX Division

Research project	Details
<p>Galaxy S ~October 2024</p>	<ul style="list-style-type: none"> <li>□ Galaxy S22 • S22+ • S22 Ultra (February 2022) <ul style="list-style-type: none"> <li>- Design: Enhanced Galaxy Design attractiveness with geometric bold design and integrity on quality</li> <li>- Screen: S22 6.1"; S22+ 6.6"; S22 Ultra 6.8"</li> <li>- 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</li> <li>- Platform (H/W, S/W): Snapdragon 8 Gen 1 /Exynos2200; Android 12.0; One UI 4.1</li> <li>- Strengthened camera video filming and low-light function performance <ul style="list-style-type: none"> <li>• Video: Improved HDR and OIS+AI Stabilizer performance to support rich colors and minimize shaking/jittering</li> <li>• Enhanced low-light performance: Applies Big Pixel sensor and On-device AI algorithm</li> </ul> </li> <li>- Integrated Ultra/Note by equipping with S Pen* Optimized latency : 5.6ms (S21 Ultra)→ 2.8ms (S22 Ultra)</li> <li>- Improved outdoor visibility of display* Peak brightness: 1,500nit (S21 Ultra)→ 1,750nit (S22 Ultra)</li> <li>- Battery that can be used all-day and 45W ultra-fast charging speed (S22 Ultra/S22+)</li> <li>- Enhanced durability: Adopts Amor AL and Victus+ Glass with a 10% improvement in durability</li> <li>- Improved completion of Galaxy foundation experience <ul style="list-style-type: none"> <li>• One UI 4.1: sophisticated, sensible interaction experience and personal experience of users</li> <li>• Galaxy Eco: improved end-to-end completion and enhanced convenient experience</li> </ul> </li> </ul> </li> <li>□ Galaxy S23 • S23+ • S23 Ultra (February 2023) <ul style="list-style-type: none"> <li>- Design: Ultimate Premium Experience designed for today and beyond <ul style="list-style-type: none"> <li>* Unrivalled Camera; Ultimate Gaming; Eco-conscious Design</li> </ul> </li> <li>- Screen: S23 6.1"; S23+ 6.6"; S23 Ultra 6.8"</li> <li>- Size (W x H x D): S23 70.9 x 146.3 x 7.6 mm; S23+ 76.2 x 157.8 x 7.6 mm; 195g S23 Ultra 78.1 x 163.4 x 8.9 mm; 233g</li> <li>- Platform (H/W, S/W): Snapdragon 8 Gen 2; Android 13; One UI 5.1</li> <li>- Enhanced low-light performance based on AI and improved video experience <ul style="list-style-type: none"> <li>• Capable of expressing precise color and tone in portrait mode even in the dark with improved color solutions leveraging AI-based scene optimization technology</li> <li>• Less camera shake for videos thanks to increased Optical Image Stabilization (OIS) correction angle (S22 Ultra 1.5°→ S23 Ultra3°)</li> </ul> </li> <li>- Offers crisp and clear, high-resolution details and high-resolution camera experience <ul style="list-style-type: none"> <li>• S23 Ultra adopted ultra-high-resolution 200MP camera</li> <li>• Provides optimal picture quality with auto adjustment of pixel size for sections with different lighting conditions</li> </ul> </li> <li>- Improved basic performance, such as heat dissipation and durability against drops <ul style="list-style-type: none"> <li>• Offers seamless gaming experience by enhancing heat dissipation performance, including improved power efficiency and revamped heat dissipation structure</li> <li>• Greater drop protection with adoption of Victus 2 Glass with durability enhanced by 21%</li> </ul> </li> <li>- S23 Ultra offers top-notch productivity experience with S pen <ul style="list-style-type: none"> <li>• AI-based recommendation of related features after text recognition from an image/video</li> </ul> </li> <li>- Improved connected experience with multiple devices (phone-PC) <ul style="list-style-type: none"> <li>• Capable of mirroring the smartphone screen on a PC and continuing browsing on the same webpage</li> </ul> </li> <li>- Adds to our sustainability story with the adoption of eco-friendly materials overall from dyes to the actual materials <ul style="list-style-type: none"> <li>• Packaging box is 100% recycled paper</li> <li>• Adopts recycled PBT resin to bond metal (10%), recycled metal materials adopted in side keys (28%), etc.</li> <li>• Incorporated recycled glass into the front and back glass panels (22%), natural dyes when processing metals, recycled PET films, etc.</li> </ul> </li> <li>- Strengthened privacy and security <ul style="list-style-type: none"> <li>• Visualization of security status; notification of sensitive information when sharing images; and limiting access to private information when repairing products</li> </ul> </li> </ul> </li> <li>□ Galaxy S24 • S24+ • S24 Ultra (January 2024) <ul style="list-style-type: none"> <li>- Introduced innovative Galaxy Intelligence experience by adopting Galaxy AI features, adding new experiences and value to daily life <ul style="list-style-type: none"> <li>• Offers AI features including circle to search, real-time interpretation, photo/note/chat assist</li> </ul> </li> <li>- Screen: S24 6.2", S24+ 6.7"; S24 Ultra 6.8"</li> <li>- Size (W x H x D): S24 70.6 x 147.0 x 7.6 mm 167g, S24+ 75.9 x 158.5 x 7.7 mm; 196g S24 Ultra 79.0 x 162.3 x 8.6 mm; 232g</li> <li>- Platform (H/W, S/W): Snapdragon 8 Gen 3/Exynos 2400; Android 14; One UI 6.1</li> <li>- Strengthen immersive display experience through application of Slim even BM</li> <li>- Elevates a sense of design cohesion with one-mass design</li> <li>- Enhances camera shooting and gallery viewing/editing with the improved AI ProVisual Engine <ul style="list-style-type: none"> <li>• Enables clear and high quality pictures with space zoom and nightography features for camera</li> <li>• Offers Instant Slow-mo and Edit Suggestion</li> </ul> </li> <li>- Improves outdoor visibility of the display * Peak brightness: 1,750nit→ 2,600nit</li> <li>- S24 Ultra enhances durability and maximizes premium quality with a titanium metal frame</li> <li>- S24 Ultra features a high-resolution telephoto camera * 10MP (S23 Ultra)→ 50MP (S24 Ultra)</li> </ul> </li> </ul>

## DX Division

Research project	Details
	<p>□ Galaxy S24 FE (2024.10.)</p> <ul style="list-style-type: none"> <li>- Balanced premium that lowers the barrier to the latest flagship experience (with Galaxy AI)</li> <li>- Screen : 6.7" FHD+ Dynamic AMOLED 2x (2340 x 1080) 120Hz</li> <li>- Size (W x H x D) : 77.3 x 162.0 x 8.0 mm, 213g</li> <li>- Platform(H/W, S/W) : Exynos 2400e, Android 14, One UI 6.1</li> <li>- Offers enhanced hardware over predecessor to maximize user experience <ul style="list-style-type: none"> <li>· AP (Exynos2200→Exynos2400e), Display (6.4"→6.7"), Battery (4,500mAh→4,700mAh)</li> </ul> </li> <li>- Offers full experience based on flagship AI (Circle to Search, Live translation, AI Photo Editing, etc.)</li> <li>- Strengthened camera shooting and gallery viewing/editing with improved AI ProVisual Engine</li> <li>- Improved outdoor visibility * Peak brightness: 1,450 nits → 1,900 nits</li> </ul>
Galaxy Tab ~October 2024	<p>□ Galaxy Tab S8 · S8+ · S8 Ultra (February 2022)</p> <ul style="list-style-type: none"> <li>- 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)</li> <li>- Size (W x H x D): Tab S8 165.3mm x 253.8mm x 6.3mm; 503g Tab S8+ 185.0mm x 285.0mm x 5.7mm; 567g Tab S8 Ultra 208.6mm x 326.4mm x 5.5mm; 726g</li> <li>- Platform (H/W, S/W): Snapdragon 8 Gen 1; Android 12; One UI 4.1</li> <li>- Memory : 8GB+128GB / 8GB+256GB / 12GB+256GB / 16G+512G, microSD up to 1TB</li> <li>- Enhanced video call experienced <ul style="list-style-type: none"> <li>[Tab S8 Ultra] Provides dual front cameras (12M 80-degrees, 12M 120-degrees) and Auto Framing function</li> <li>[Tab S8+ / Tab S8] Provides 12M 120-degree front camera and Auto Framing function</li> </ul> </li> <li>- Enhanced AP Sustain performance by improving heat sink design (gpu 70%, cpu 25%↑ compared to previous model), enhanced gaming performance</li> <li>- Improved S pen latency (5.6ms→ 2.65ms) and optimized prediction algorithm <ul style="list-style-type: none"> <li>Provides seamless and precise writing experience when writing &amp; drawing, just like a real pen, enhancements to lessen the parallax effect</li> </ul> </li> <li>- Enhanced the audio experience of video calls by upgrading 3 MIC noise cancellation performance (3 types of noise cancellation mode)</li> <li>- Equipped with WiFi 6E function—a first for a tablet—and improved big data transmission time between devices</li> <li>- Reduced charging time of Phone Power Share by half compared to the previous model by adopting D2D 15W charging function</li> </ul> <p>□ Galaxy Tab S9 · S9+ · S9 Ultra (August 2023)</p> <ul style="list-style-type: none"> <li>- Screen: Tab S9 11" WQXGA+ (2560 x 1600) Tab S9+ 12.4" WQXGA+ (2800 x 1752) Tab S9 Ultra 14.6" WQXGA+ (2960 x 1848)</li> <li>- Size (W x H x D): Tab S9 165.8mm x 254.3mm x 5.9mm; 498g Tab S9+ 185.4mm x 285.4mm x 5.7mm; 581g Tab S9 Ultra 208.6mm x 326.4mm x 5.5mm; 732g</li> <li>- Platform (H/W, S/W): Snapdragon 8 Gen 2; Android 13; One UI 5.1</li> <li>- Provided large-screen experience adapted with rich color impression and various environment settings <ul style="list-style-type: none"> <li>· Adopted Dynamic AMOLED 2X technology for all models in Tab S9 series, offering clear and comfortable screen experience</li> <li>· Implemented Vision Booster technology that ensures a vibrant screen, even in direct sunlight</li> </ul> </li> <li>- Secured mobility and dependability so users can use the product anywhere without any concerns <ul style="list-style-type: none"> <li>· Achieved IP68 rating, the highest level of waterproof/dustproof accreditation</li> <li>· Armor Aluminum frame protects the product from impacts</li> <li>· Enhanced usability eco-system by introducing an S Pen that can be charged in either direction, and enhanced durability of accessories.</li> <li>· Strengthened compatibility by making the keyboard and other accessories compatible with Tab FE models</li> <li>· Introduced a new two-way heat dissipation structure using a vapor chamber, allowing users to use the product for a long time without discomfort</li> </ul> </li> <li>- Secured sufficient Android App Eco system in various areas <ul style="list-style-type: none"> <li>· Strengthened key android productivity apps, including apps for taking notes, managing documents, and browsing—e.g., Samsung note, Good note</li> <li>· Secured key apps to improve usability in drawing and photo/video editing: LumaFusion, Clip studio, etc.</li> </ul> </li> <li>- Utilized eco-friendly materials throughout the product, incorporating recycled components for the exterior and tempered glass <ul style="list-style-type: none"> <li>· Newly adopted recycled plastic on the S Pen dock surface</li> <li>· Used new recycled materials for tempered glass of the display (10%, Gorilla Glass 5)</li> <li>· Used 100% recycled paper and armor aluminum (20%) for package box and recycled plastic for interior materials</li> </ul> </li> </ul>

## DX Division

Research project	Details
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy Tab S10+ • S10 Ultra (October 2024) <ul style="list-style-type: none"> <li>- Screen : Tab S10 Plus 12.4" WQXGA+ (2800 x 1752) Tab S10 Ultra 14.6" WQXGA+ (2960 x 1848)</li> <li>- Size (W x H x D): Tab S10 Plus 185.4 x 285.4 x 5.6 mm, 571g Tab S10 Ultra 208.6 x 326.4 x 5.4 mm, 718g</li> <li>- Platform(H/W, S/W): Mediatek Dimensity 9300+, Android 14, One UI 6.1.1</li> <li>- Easy and convenient AI user experience using S Pen</li> <li>- Dynamic AMOLED 2X Display, 120Hz, abut-reflective coating</li> </ul> </li> </ul>
Galaxy A ~November 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy A13 5G (January 2022) <ul style="list-style-type: none"> <li>- Screen: 6.5" HD+ (1600 x 720) 90Hz</li> <li>- Size (W x H x D): 76.5mm x 164.5mm x 8.8mm; 195g</li> <li>- 6.5" HD+ display, supports 90Hz screen refresh rate (previous model: A12 6.5" HD+ 60Hz)</li> <li>- Super-low priced 5G model for LTE user migration and expansion of the 5G market</li> <li>- Strengthened AP (P35 → D700) to address entry market</li> <li>- Higher definition of pictures compared to the previous model (A12 16MP) with the application of 50MP camera</li> </ul> </li> <li><input type="checkbox"/> Galaxy A23 (March 2022) <ul style="list-style-type: none"> <li>- Screen: 6.6" FHD+ (2408 x 1080) 90Hz</li> <li>- Size (W x H x D): 76.9mm x 165.4mm x 8.4mm; 195g</li> <li>- Platform (H/W, S/W): SDM680; Android 12; One UI 4.1</li> <li>- 6.6" FHD+ display, supports 90Hz screen refresh rate (previous model: A22 6.4" HD+ 90Hz)</li> <li>- Vivid pictures in the dark without camera shake with the adoption of high-definition 50MP OIS camera</li> <li>- Adoption of high-capacity 5,000mAh battery(2 days battery) and supports 25W ultra-fast charging</li> </ul> </li> <li><input type="checkbox"/> Galaxy A13 LTE (March 2022) <ul style="list-style-type: none"> <li>- Screen: 6.6" FHD+ (2408 x 1080) 60Hz</li> <li>- Size (W x H x D): 76.4mm x 165.1mm x 8.8mm; 195g</li> <li>- Platform (H/W, S/W): Exynos85; Android 12; One UI Core 4.1</li> <li>- Provides better large screen experience compared to the previous model (A12 6.5" HD+) by adopting 6.6" FHD+ display</li> <li>- Higher definition of pictures compared to the previous model (A12 48MP) by adopting 50MP camera</li> <li>- Able to use up to two days on a single charge by applying 5,000mAh high-capacity battery and AI Power mode</li> </ul> </li> <li><input type="checkbox"/> Galaxy A73 5G (April 2022) <ul style="list-style-type: none"> <li>- Screen: 6.7" FHD+ Super AMOLED+ (1080 x 2400) 120Hz</li> <li>- Size (W x H x D): 76.1mm x 163.7mm x 7.6mm; 181g</li> <li>- Platform (H/W, S/W): SDM778G; Android 12; One UI 4.1</li> <li>- Vivid pictures in the dark without camera shake with the support of 108MP high-resolution picture quality and OIS</li> <li>- Soft and clear screen experience with the adoption of high refresh rate of 120Hz and sAMOLED display</li> <li>- Adopts 5,000mAh high-capacity battery (2-day battery life) and supports 25W ultra-fast charging speed</li> <li>- Offers strong durability with the adoption of Gorilla Glass 5 and IP67 rating</li> <li>- Provides the latest flagship experience with the support of One UI 4.1</li> </ul> </li> <li><input type="checkbox"/> Galaxy A53 5G (April 2022) <ul style="list-style-type: none"> <li>- Screen: 6.5" FHD+ Super AMOLED (1080 x 2400) 120Hz</li> <li>- Size (W x H x D): 74.8mm x 159.6mm x 8.1mm; 189g</li> <li>- Platform (H/W, S/W): Exynos1280; Android 12; One UI 4.1</li> <li>- 8.1t slim design and 5,000 mAh high-capacity battery (0.3t↓, 500 mAh↑ compared to previous model)</li> <li>- Soft and clear screen experience provided by the combination of high refresh rate of 120Hz and fast response speed of sAMOLED</li> <li>- Enhanced glass durability with the adoption of Gorilla Glass 5</li> <li>- Provides the latest flagship experience with the support of One UI 4.1</li> </ul> </li> <li><input type="checkbox"/> Galaxy A33 5G (April 2022) <ul style="list-style-type: none"> <li>- Screen: 6.4" FHD+ Super AMOLED (1080 x 2400) 90Hz</li> <li>- Size (W x H x D): 74.0mm x 159.7mm x 8.1mm; 186g</li> <li>- Platform (H/W, S/W): Exynos1280; Android 12; One UI 4.1</li> <li>- Delivers enhanced screen experience with the support of 6.4" FHD+ display and 90Hz (previous model: A32-5G HD+ TFT 60Hz)</li> <li>- High-definition pictures without camera shake with the adoption of 48MP OIS camera</li> <li>- Enhanced durability with the adoption of Gorilla Glass 5 and support of IP67 rating for dust and water resistance</li> <li>- Adopts 5,000 mAh high-capacity battery (2-day battery) and supports 25W ultra-fast charging speed</li> </ul> </li> </ul>

## DX Division

Research project	Details
	<ul style="list-style-type: none"> <li>□ Galaxy A23 5G (September 2022) <ul style="list-style-type: none"> <li>- Screen: 6.6" FHD+ TFT LCD (1080 x 2408) 120Hz</li> <li>- Size (W x H x D): 76.9mm x 165.4mm x 8.4mm; 197g</li> <li>- Platform (H/W, S/W): SDM695; Android 12; One UI 4.1</li> <li>- Upgraded AP performance compared to previous model (A22-5G D700) with the application of SDM695</li> <li>- High-resolution pictures without camera shake with the adoption of 50MP OIS camera (OIS is not supported in the North America region)</li> <li>- Provides enhanced large-screen experience compared to previous model (A22-5G 6.6" FHD+ 90Hz) by adopting 6.6" FHD+</li> <li>- Applies 5,000mAh large-capacity battery (2-day battery) and supports 25W ultra-fast charging</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy A14 5G (January 2023) <ul style="list-style-type: none"> <li>- Screen: 6.6" FHD+ TFT LCD (2408 x 1080) 90Hz</li> <li>- Size (W x H x D): 78.0 x 167.7 x 9.1mm; 201g</li> <li>- Platform(H/W, S/W) : D700/Exynos1330; Android 13; One UI core 5.0</li> <li>- High-resolution pictures (5MP→13MP) with adoption of higher spec front camera compared to previous model (A13-5G)</li> <li>- Enhanced screen experience compared to previous model (A13-5G 6.5" HD+) with adoption of 6.6" FHD+ large-screen display</li> <li>- Applies 5,000mAh large-capacity battery</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy A54 5G (March 2023) <ul style="list-style-type: none"> <li>- Screen: 6.4" FHD+ Super AMOLED (2340 x 1080) 19.5:9 120Hz</li> <li>- Size (W x H x D): 76.7 x 158.2 x 8.2mm; 202 g</li> <li>- Platform (H/W, S/W) : Exynos1380; Android 13; One UI 5.1</li> <li>- Improved visibility through enhanced performance of AP picture quality, fine-tuning by light condition, and peak brightness of 1,000nit</li> <li>- Maximized performance by offering optimal refresh rate of 120Hz and boosted battery efficiency</li> <li>- Provides rich haptics experience thanks to elaborate adjustment of linear motor vibration</li> <li>- Enhanced balanced design and premium CMF (adopts 6.4", 19.5:9)</li> <li>- Offers the latest flagship experience with One UI 5.1</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy A34 5G (March 2023) <ul style="list-style-type: none"> <li>- Screen: 6.6" FHD+ Super AMOLED (2340 x 1080) 120Hz</li> <li>- Size (W x H x D): 78.1 x 161.3 x 8.2mm; 199g</li> <li>- Platform (H/W, S/W) : D1080; Android 13; One UI 5.1</li> <li>- Offers enhanced screen experience by featuring 6.6" FHD+, 1,000nit brightness, and 120Hz refresh rate</li> <li>- High-resolution pictures without camera shake with adoption of 48MP OIS camera</li> <li>- Equipped with a linear motor, which provides haptics experience of a flagship model</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy A14 (March 2023) <ul style="list-style-type: none"> <li>- Screen: 6.6" FHD+ TFT LCD (2408 x 1080) 60Hz</li> <li>- Size (W x H x D): 78.0 x 167.7 x 9.1mm; 201g</li> <li>- Platform (H/W, S/W): Exynos 850/G80; Android 13; One UI core 5.1</li> <li>- Offers enhanced selfie experience (8MP→13MP) with adoption of higher spec front camera compared to previous model (A13)</li> <li>- Applies 5,000mAh large-capacity battery</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy A24 (May 2023) <ul style="list-style-type: none"> <li>- Screen: 6.5" FHD+ sAMOLED U-Cut (1080 x 2340) 90Hz</li> <li>- Size (W x H x D): 77.6mm x 162.1mm x 8.3mm; 195g</li> <li>- Platform (H/W, S/W): G99; Android 13; One UI core 5.1</li> <li>- Enhanced selfie experience (8MP →13MP) with adoption of higher spec front camera compared to A23</li> <li>- Records videos without camera shake via the adoption of new VDIS in addition to the previous OIS feature</li> <li>- Offers improved outdoor visibility compared to the A23, with wider color gamut spectrum, providing a brighter and more convenient screen experience</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy A05s (October 2023) <ul style="list-style-type: none"> <li>- Screen: 6.7" FHD+ TFT LCD U-cut (1080 x 2400) 90Hz</li> <li>- Size (W x H x D): 77.8mm x 168.0mm x 8.8mm; 194g</li> <li>- Platform (H/W, S/W): SDM680; Android 13; One UI core 5.1</li> <li>- Drives market volume/share in entry-level LTE market</li> <li>- Higher spec than the previous A04S: Equipped with high-performance AP (Exynos850 8nm→SDM680 6nm) and high-spec front camera (5MP→ 13MP)</li> <li>- Adoption of high-capacity global 5,000 mAh battery and supports 25W ultra-fast charging (15W→25W)</li> </ul> </li> </ul>

## DX Division

Research project	Details
	<ul style="list-style-type: none"> <li>- <input type="checkbox"/> Galaxy A05 (October 2023)</li> <li>- Screen: 6.7" HD+ TFT LCD U-cut (720 x 1600) 60Hz</li> <li>- Size (W x H x D) &amp; weight: 78.2mm x 168.8mm x 8.8mm; 195g</li> <li>- Platform (H/W, S/W): G85; Android 13; One UI Core 5.1</li> <li>- Provides enhanced multimedia experiences with supports of large screen (6.7") and high-resolution camera (50MP)</li> <li>- Improves customers' product usability by incorporating high-performance AP (CPU 33%↑, GPU 150% compared to the previous model)</li> <li>- Able to use long period on a 30-minute-charge with 25W fast charging</li> </ul>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy A25 5G (January 2024)</li> <li>- Screen: 6.5" FHD+ Super AMOLED (2340 x 1080) 19.5:9 120Hz</li> <li>- Size (W x H x D): 76.5 x 161.0 x 8.3 mm; 197g</li> <li>- Platform (H/W, S/W): Exynos 1280; Android 14; One UI 6.0</li> <li>- Supports 6.5" FHD+ and 120Hz refresh rates for an improved viewing experience</li> <li>- Enables high-resolution shake-free photos with 50MP OIS wide-angle camera</li> <li>- Adoption of high-capacity 5,000mAh battery</li> </ul>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy A15 (January 2024)</li> <li>- Screen: 6.5" FHD+ Super AMOLED (2340 x 1080) 19.5:9 90Hz</li> <li>- Size (W x H x D): 76.8 x 160.1 x 8.4 mm; 200g</li> <li>- Platform (H/W, S/W): [5G] D6100+ / [LTE] G99; Android 14; One UI 6.0</li> <li>- Enhances picture quality by upgrading display compared to the previous model (A14) (LCD→ Super AMOLED)</li> <li>- Adoption of high-capacity 5,000mAh battery that supports 25W fast charging</li> <li>- Enhances security and privacy protection with Knox Vault</li> </ul>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy A55 5G (March 2024)</li> <li>- Screen: 6.6" FHD+ Super AMOLED (2340 x 1080) 19.5:9 120Hz</li> <li>- Size (W x H x D): 77.4 x 161.1 x 8.2 mm; 213g</li> <li>- Platform (H/W, S/W): Exynos 1480; Android 14.0; One UI 6.1</li> <li>- Provides stronger nightography and video recording experience with enhanced camera sensor and AP</li> <li>- Enhances design competitiveness by applying metal + glass and creating young &amp; energetic CMF design</li> <li>- Provides improved screen viewing experience with 6.6" FHD+ large screen display, compared to the previous A54-5g with 6.4"</li> </ul>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy A35 5G (March 2024)</li> <li>- Screen: 6.6" FHD+ Super AMOLED (2340 x 1080) 19.5:9 120Hz</li> <li>- Size (W x H x D): 78.0 x 161.7 x 8.2 mm; 209g</li> <li>- Platform (H/W, S/W): Exynos 1380; Android 14.0; One UI 6.1</li> <li>- Applies HID (hole-in-display) and back glass for unique and distinctive design</li> <li>- Enhances security with Knox Vault and guarantees quality by providing four OS updates and five security maintenance releases</li> </ul>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy A06 (September 2024)</li> <li>- Expands entry segment volume with A06, the successor to A05 and the cheapest LTE model for SEC</li> <li>- Screen: 6.7"HD+ TFT LCD (1600 x 720) 60Hz</li> <li>- Size (W x H x D): 77.3 x 167.3 x 8.0 mm; 189g</li> <li>- Platform (H/W, S/W): G85; Android 14; One UI 6.1</li> <li>- Applies large screen slim design with thickness of 8.0mm)</li> <li>- Supports side fingerprint and strengthens data security with Samsung Knox Vault security solution</li> </ul>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy A16 5G (October 2024)</li> <li>- Successor to A15 5G to address growth in the entry-level 5G market</li> <li>- Screen : 6.7" FHD+ Super AMOLED (2340 x 1080) 90Hz</li> <li>- Size (W x H x D) : 77.9 x 164.4 x 7.9 mm, 200g</li> <li>- Platform(H/W, S/W): Exynos 1330 / D6300, Android 14, One UI 6.1</li> <li>- Applied large 6.7" display and slim design (thickness: 7.9mm)</li> <li>- Supports 6 OS updates and 6 years of SMR updates; IP54 rating for water and dust resistance</li> </ul>
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy A16 (November 2024)</li> <li>- Successor to A15 to address market demand for entry-level LTE</li> <li>- Screen: 6.7" FHD+ sA (2340 x 1080) 90Hz</li> <li>- Size (W x H x D) : 77.9 x 164.4 x 7.9 mm, 200g</li> <li>- Platform(H/W, S/W): G99, Android 14, One UI 6.1</li> <li>- Applied large 6.7" display and slim design (thickness: 7.9mm)</li> <li>- Supports 6 OS updates and 6 years of SMR updates; IP54 rating for water and dust resistance</li> </ul>

## DX Division

Research project	Details
Galaxy Book ~October 2024	<ul style="list-style-type: none"> <li>- <input type="checkbox"/> Galaxy Book2 Pro 360 (April 2022)</li> <li>- 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%</li> <li>- Size (W x H x D): 15.6" 354.85 x 227.97 x 11.9mm; 1.41kg 13.3" 302.5 x 202 x 11.5 mm; 1.04kg</li> <li>- Platform, OS: 12th Gen Intel ® Core™ Processor; Windows 11</li> <li>- sAMOLED: Default 370nit/HDR 500nit; Color volume 120%</li> <li>- S Pen &amp; Touchscreen support</li> <li>- 1080p FHD Camera (87-degree wide angle, supports Auto Framing, which recognizes users and adjusts them to the center of the screen)</li> <li>- SSD: Gen4 SSD, Expendable SSD (M.2 2230)</li> <li>- Supports WiFi 6E</li> <li>- Battery: 15.6" 68Wh (21hrs); 13.3" 63Wh (21hrs)</li> <li>- Galaxy Apps: Quick Share, 2nd Screen, Multi-Control, etc.</li> <li>- QR Sign-in: logs into Galaxy Book with a QR scan linked to the account on your phone</li> <li>- Security: supports Secured-Core PC with enhanced security for each stage for hardware, firmware, and software</li> </ul>
	<ul style="list-style-type: none"> <li>- <input type="checkbox"/> Galaxy Book2 Pro (April 2022)</li> <li>- 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%</li> <li>- Size (W x H x D): 15.6" 355.4 x 225.8 x 11.7mm; 1.11kg 13.3" 304.4 x 199.8 x 11.2mm; 0.87kg</li> <li>- Platform, OS: 12th Gen Intel ® Core™ Processor; Windows 11</li> <li>- AMOLED: Default 400nit/HDR 500nit, Color volume 120%</li> <li>- 1080p FHD Camera (87-degree wide angle, supports Auto Framing, which recognizes users and adjusts them to the center of the screen)</li> <li>- SSD: Gen4 SSD, Expendable SSD (15.6" Only, M.2 2280)</li> <li>- Supports WiFi 6E, 5G Sub6 (15.6" Only)</li> <li>- Battery: 15.6" 68Wh (21hrs); 13.3" 63Wh (21hrs)</li> <li>- Galaxy Apps: Quick Share, 2nd Screen, Multi-Control, etc. <ul style="list-style-type: none"> <li>• QR Sign-in: logs into Galaxy Book with a QR scan linked to the account on your phone</li> </ul> </li> <li>- Security: supports Secured-Core PC with enhanced security for each stage for hardware, firmware, and software</li> </ul>
	<ul style="list-style-type: none"> <li>- <input type="checkbox"/> Galaxy Book2 Go 5G (December 2022)</li> <li>- Screen: 14" IPS (1920 x 1080)</li> <li>- Size (W x H x D): 323.9mm x 224.8mm x 15.5mm</li> <li>- Platform: Snapdragon 7C+ Gen 3; Window 11</li> <li>- Developed Mass WoA product adopting 7C+ Gen 3 (CPU 63%↑, GPU 102%↑ compared to Snapdragon 7C Gen 2)</li> <li>- Improved picture quality of display (TN →IPS)</li> <li>- Supports WiFi 6E, 5G Sub6</li> <li>- Adopted 5G model for the mass market which supports ENDC/eSIM</li> <li>- Supports 45W charging</li> <li>- Completed eight tests from the MIL-STD-810H certification <ul style="list-style-type: none"> <li>• Shock, high/low temperature, thermal shock, dust, vibration, low pressure, humidity</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>- <input type="checkbox"/> Galaxy Book2 Pro 360 (2023) (December 2022)</li> <li>- Screen: 13.3" FHD AMOLED (16:9); Touch Screen, Color Volume (DCI-P3) 100%; S Pen</li> <li>- Size (W x H x D): 13.3" 302.5 x 202.0 x 11.5mm; 1.04kg</li> <li>- Platform, OS: Snapdragon 8cx Gen 3; Windows 11 Home</li> <li>- AMOLED: 13.3" FHD Super AMOLED (16:9); Color Volume (DCI-P3) 100%; up to 370nit; S Pen</li> <li>- Speakers: Stereo 2 x 4W (Smart AMP), AKG, Dolby Atmos</li> <li>- SSD: eUFS on board, 256GB</li> <li>- WiFi 6E (802.11ax)</li> <li>- Battery: 63Wh (Video Play 35hrs↑)</li> <li>- Galaxy ecosystem: Smart Switch, Samsung Account, Samsung Apps, Keyboard &amp; Touch Pad Sharing between Galaxy devices</li> <li>- Security: fingerprint recognition, Secured Core PC (Level 3, H/W &amp; F/W Protection)</li> <li>- AI: Noise Reduction, Video Call with Neural Engine</li> </ul>

## DX Division

Research project	Details
	<ul style="list-style-type: none"> <li>□ Galaxy Book3 Ultra (February 2023) <ul style="list-style-type: none"> <li>- Screen: 16.0" OLED 120Hz; 370nit/500nit; 16:10 (2880 x 1800, 3K)</li> <li>- Size (W x D x H): 355.4 x 250.5 x 16.5mm; 1.79kg,</li> <li>- Intel ® Core™ Processor(13 Gen); Win 11, LPDDR5, NVIDIA® GeForce RTX™ 4050/4070; 76W Battery; FHD MIPI Camera, A/C/D AI; B Glass; TA 100W</li> <li>- Adopts 13th Gen Intel® Core™ H-series mobile processor and next-generation Nvidia® GeForce RTX™ 40 Series graphics</li> <li>- 3K high-resolution display that adopts WQXGA+; color volume 120%</li> <li>- Touch pad 39% larger in size (compared to Galaxy Book 2 Pro 33.7 cm / 39.6cm)</li> <li>- Fast charging speed of 100W; charges 55% of battery in 30 minutes</li> <li>- Quad Speaker: features AKG and Dolby Atmos</li> <li>- Supports Galaxy Ecosystem <ul style="list-style-type: none"> <li>• Multi Control: capable of using keyboard and mouse on a smartphone and a tablet; can transfer files or copy and paste files and images between devices</li> <li>• Second Screen: using Galaxy Tab as a dual monitor; capable of extending or replicating PC screen</li> <li>• Quick Share: wireless file sharing between Galaxy devices, such as phone and tablet</li> </ul> </li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Book3 Pro 360 (February 2023) <ul style="list-style-type: none"> <li>- Screen: 16.0" WQXGA+ AMOLED (16:10) 2880 x 1800; Touch Screen; DCI-P3 120%; S Pen</li> <li>- Size (W x H x D) &amp; weight: 16.0" 355.4 x 252.2 x 12.8mm; 1.66kg</li> <li>- Platform, OS: Intel ® Core™ Processor(13 Gen); Windows 11</li> <li>- Dynamic AMOLED 2X: 3K (2880x1800); 500nit (HDR); 120Hz, DCI-P3 120%</li> <li>- S Pen &amp; Touchscreen support</li> <li>- 1080p FHD Camera (87-degree wide angle, supports Auto Framing, which recognizes users and adjusts them to the center of the screen)</li> <li>- Quad SPK (AKG/Dolby, Max 5Wx2, 2Wx2), Studio Grade Dual Mic</li> <li>- SSD: Gen4 SSD</li> <li>- Supports WiFi 6E</li> <li>- Battery: 76Wh</li> <li>- Galaxy Apps: Quick Share, 2nd Screen, Multi-Control, Samsung Pass, etc.</li> <li>- Security: supports Secured-Core PC with enhanced security for each stage for hardware, firmware, and software</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Book3 Pro (February 2023) <ul style="list-style-type: none"> <li>- Screen: 16" WQXGA+ AMOLED (16:10), up to 500nit (HDR); 120Hz, DCI-P3 120% <ul style="list-style-type: none"> <li>14" WQXGA+ AMOLED (16:10), up to 500nit (HDR); 120Hz, DCI-P3 120%</li> </ul> </li> <li>- Size (W x H x D) 16" 355.4 x 250.4 x 12.5mm; 1.56kg <ul style="list-style-type: none"> <li>14" 312.3 x 223.8 x 11.3mm; 1.17kg</li> </ul> </li> <li>- Platform, OS: Intel ® Core™ Processor(13 Gen); Windows 11</li> <li>- Dynamic AMOLED 2X: 3K (2880 x 1800), 500nit (HDR); 120Hz, DCI-P3 120%</li> <li>- 1080p FHD Camera (87-degree wide angle, supports Auto Framing, which recognizes users and adjusts them to the center of the screen)</li> <li>- Quad SPK (AKG/Dolby, Max 5Wx2, 2Wx2), Studio Grade Dual Mic</li> <li>- SSD: Gen4 SSD, Expendable SSD (M.2 2280)</li> <li>- Supports WiFi 6E</li> <li>- Battery: 16" 76Wh, 14" 63Wh</li> <li>- Galaxy Apps: Quick Share, 2nd Screen, Multi-Control, Samsung Pass, etc.</li> <li>- Security: supports Secured-Core PC with enhanced security for each stage for hardware, firmware, and software</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Book3 360 (February 2023) <ul style="list-style-type: none"> <li>- Screen 15.6" FHD Super AMOLED (16:9), up to 500nit (HDR), DCI-P3 120% <ul style="list-style-type: none"> <li>13.3" FHD Super AMOLED (16:9), up to 500nit (HDR), DCI-P3 120%</li> </ul> </li> <li>- Size (W x H x D): 15.6" 355.4 x 228.0 x 13.7mm; 1.49kg <ul style="list-style-type: none"> <li>13.3" 304.4 x 202.0 x 12.9 mm; 1.16kg</li> </ul> </li> <li>- Platform, OS: Intel ® Core™ Processor(13 Gen); Windows 11</li> <li>- sAMOLED: 1080p FHD; 500nit (HDR), 60Hz, DCI-P3 120%</li> <li>- S Pen &amp; Touchscreen support</li> <li>- 1080p FHD Camera (87-degree wide angle, supports Auto Framing, which recognizes users and adjusts them to the center of the screen)</li> <li>- Stereo SPK (Dolby, 2Wx2), Studio Grade Dual Mic</li> <li>- SSD: Gen4 DRAM-less SSD, Expendable SSD (15.6")</li> <li>- Supports WiFi 6E</li> <li>- Battery: 15.6" 68Wh, 13.3" 61.1Wh</li> <li>- Galaxy Apps: Quick Share, 2nd Screen, Multi-Control, Samsung Pass, etc.</li> <li>- Security: supports Secured-Core PC with enhanced security for each stage for hardware, firmware, and software</li> </ul> </li> </ul>

## DX Division

Research project	Details
	<ul style="list-style-type: none"> <li>□ Galaxy Book4 Ultra (January 2024) <ul style="list-style-type: none"> <li>- Screen: 16" WQXGA+ AMOLED (16:10) Touch Screen, Anti-Reflection</li> <li>- Size (W x D x H): 355.4 x 250.4 x 16.5mm; 1.86kg</li> <li>- Platform/OS: Intel® Core™ Ultra Processor, Windows 11</li> <li>- Dynamic AMOLED 2X: 3K (2880x1800), 120Hz, color volume 120% (DCI-P3 basis), 500nit (HDR)</li> <li>- Graphic: NVIDIA® GeForce RTX™ 4050/4070</li> <li>- AKG Quad speaker (Woofer Max 5W x 2, Tweeter 2W x 2), Smart Amp, Dolby Atmos®, 2M Camera</li> <li>- Memory, SSD : LPDDR5X, NVMe SSD</li> <li>- Bluetooth v5.3, WiFi 6E, 802.11 ax 2x2</li> <li>- Battery: 76Wh</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Book4 Pro 360 (January 2024) <ul style="list-style-type: none"> <li>- Screen: 16" WQXGA+ AMOLED (16:10) Touch Screen, Anti-Reflection, supports S pen</li> <li>- Size (W x H x D): 355.4 x 252.2 x 12.8mm; 1.66kg</li> <li>- Platform/OS: Intel® Core™ Ultra Processor, Windows 11</li> <li>- Dynamic AMOLED 2X: 3K (2880x1800), 120Hz, 120% color volume (DCI-P3 basis), 500nit (HDR), S pen</li> <li>- Graphic: Intel® Arc™ Graphics</li> <li>- AKG Quad speaker (Woofer Max 5W x 2, Tweeter 2W x 2), Smart Amp, Dolby Atmos®, 2M Camera</li> <li>- Memory, SSD: LPDDR5X, NVMe SSD</li> <li>- Bluetooth v5.3, WiFi 6E, 802.11 ax 2x2</li> <li>- Battery: 76Wh</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Book4 Pro (January 2024) <ul style="list-style-type: none"> <li>- Screen: 16" WQXGA+ AMOLED (16:10) Touch Screen; Anti-Reflective</li> <li>- 14" WQXGA+ AMOLED (16:10) Touch Screen; Anti-Reflective</li> <li>- Size (W x H x D): 16" 355.4 x 250.4 x 12.5mm; 1.56kg</li> <li>- 14" 312.3 x 223.8 x 11.6mm; 1.23kg</li> <li>- Platform/OS: Intel® Core™ Ultra Processor; Windows 11</li> <li>- Dynamic AMOLED 2X: 3K (2880x1800), 120Hz, 120% color volume (DCI-P3 basis), 500nit (HDR)</li> <li>- Graphic: Intel® Arc™ Graphics</li> <li>- AKG Quad speaker (Woofer Max 5W x 2, Tweeter 2W x 2); Smart Amp, Dolby Atmos®, 2M Camera</li> <li>- Memory, SSD: LPDDR5X; NVMe SSD</li> <li>- Bluetooth v5.3, WiFi 6E, 802.11 ax 2x2</li> <li>- Battery: 16" 76Wh, 14" 63Wh</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Book4 Edge (June 2024) <ul style="list-style-type: none"> <li>- Screen: 16" WQXGA+ AMOLED (16:10) Touch Screen, Anti-Reflective</li> <li>- 14" WQXGA+ AMOLED (16:10) Touch Screen, Anti-Reflective</li> <li>- Size (W x H x D): 16" 355.4 x 250.4 x 12.3mm; 1.55kg 14" 312.3 x 223.8 x 10.9mm; 1.16kg</li> <li>- Platform/OS: Qualcomm Snapdragon X Elite (12 core), Windows 11</li> <li>- Dynamic AMOLED 2X: 3K (2880x1800), 120Hz, color volume 120% (DCI-P3 basis), 400nit (HDR)</li> <li>- Graphic: Qualcomm Adreno</li> <li>- Quad speaker (16" Woofer Max 5W x2, Tweeter 2W x 2, 14" Woofer Max 4W x2, Tweeter 2.7W x 2), Dolby Atmos, 2M Camera</li> <li>- Memory, SSD: 16"16GB, eUFS 512GB,1TB / 14"16GB, eUFS 512GB</li> <li>- Bluetooth v5.3, WiFi 7, 802.11 a/b/g/n/ac/ax/be</li> <li>- Battery: 16" 61.8Wh, 14"55.9Wh</li> <li>- Features AI functions to lead Next Gen AI PC market</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Book5 Pro 360 (September 2024) <ul style="list-style-type: none"> <li>- Screen: 16" WQXGA+ AMOLED (16:10) Touch Screen, Anti-Reflective, supports S Pen</li> <li>- Size (W x H x D): 355.4 x 252.2 x 12.8mm; 1.69kg</li> <li>- Platform/OS : Intel® Core™ Ultra Processor, Windows 11</li> <li>- Dynamic AMOLED 2X : 3K(2880x1800), 120Hz, color volume 120% (DCI-P3 basis), 500nit(HDR), S Pen</li> <li>- Graphic : Intel® Arc™ Graphics</li> <li>- Quad speaker (Woofer Max 5W x 2, Tweeter 3.3W x 2), Smart Amp, Dolby Atmos®, 2M Camera</li> <li>- Memory, SSD : LPDDR5X, NVMe SSD</li> <li>- Bluetooth v5.4, WiFi 7, 802.11 be 2x2</li> <li>- Battery : 76Wh</li> </ul> </li> </ul>
	<ul style="list-style-type: none"> <li>□ Galaxy Book4 Pro 360 5G (October 2024) <ul style="list-style-type: none"> <li>- Screen: 16" WQXGA+ AMOLED (16:10) Touch Screen, Anti-Reflective, supports S Pen</li> <li>- Size (W x H x D) &amp; weight : 16"355.4 x 252.2 x 12.8mm, 1.73kg</li> <li>- Platform, OS: Qualcomm Snapdragon X Elite (12 core), Windows 11</li> <li>- Dynamic AMOLED 2X: 3K (2880x1800), 120Hz, S Pen</li> <li>- Graphic: Qualcomm Adreno</li> <li>- Quad speaker ( Woofer Max 5W x 2, Tweeter 2W x 2), Smart Amp, Dolby Atmos, 2M Camera</li> <li>- Battery : 76Wh</li> </ul> </li> </ul>

## DX Division

Research project	Details
	<ul style="list-style-type: none"> <li>□ Galaxy Book4 Edge (October 2024) <ul style="list-style-type: none"> <li>- Screen: 15.6" FHD Wide Viewing Angle LED Display (1920 x 1080), Anti-Glare</li> <li>- Size (W x H x D) &amp; weight : 356.6 x 229.75 x 15.0mm, 1.5kg</li> <li>- Platform, OS : Qualcomm Snapdragon X Plus (8 core), Windows 11</li> <li>- Graphic: Qualcomm Adreno</li> <li>- Supports Bluetooth v5.3, WiFi 7</li> <li>- Stereo speaker (1.5 W x 2), Dolby Atmos, 2M Camera</li> <li>- Battery : 61.2 Wh</li> </ul> </li> </ul>
Galaxy Watch ~July 2024	<ul style="list-style-type: none"> <li>□ Galaxy Watch5 &amp; Galaxy Watch5 Pro (August 2022) <ul style="list-style-type: none"> <li>- Display: Watch5 Pro (46mm) 34.6mm AMOLED (450 x 450) 330PPI Watch5 (44mm) 34.6mm AMOLED (450 x 450) 330PPI Watch5 (40mm) 30.4mm AMOLED (396 x 396) 330PPI</li> <li>- Size (W x H x D): Watch5 Pro (46mm) 45.4 x 45.4 x 10.5 mm; 46.5g Watch5 (44mm) 44.4 x 43.3 x 9.8 mm; 33.5g Watch5 (40mm) 40.4 x 39.3 x 9.8 mm; 28.7g</li> <li>- Platform (H/W, S/W): Exynos W920, Wear OS Powered by Samsung (Wear OS 3.5)</li> <li>- Signature circular design with adoption of sapphire crystal glass</li> <li>- Enhanced integrated health monitoring function equipped with the advanced BioActive Sensor <ul style="list-style-type: none"> <li>• Improved accuracy of body composition, heart rate, blood pressure, and ECG, and advanced sleep monitoring function</li> </ul> </li> <li>- Equipped with One UI Watch 4.5 based on Wear OS, which enables various Google mobile services and apps</li> <li>- Premium titanium body; optimized for outdoor activities with enhanced GPS tracking features (Watch5 Pro) <ul style="list-style-type: none"> <li>• Enhanced performance and durability for better utilization in outdoor activities, such as hiking and cycling</li> <li>• Provides Magnetic D-Buckle Sport Band, which offers better durability, convenience, and style</li> <li>• Save and share workout journey using Route Workout and GPS Exchange Format (GPX) files</li> <li>• Provides turn-by-turn navigation along previous routes through the Track Back feature</li> <li>• Enables lengthy use for outdoor activities via the adoption of large-capacity battery (590mAh)</li> </ul> </li> </ul> </li> <li>□ Galaxy Watch6 &amp; Galaxy Watch6 Classic (August 2023) <ul style="list-style-type: none"> <li>- Display: Watch6 Classic (47mm) 37.3mm Super AMOLED (480 x 480) Watch6 Classic (43mm) 33.3mm Super AMOLED (432 x 432) Watch6 (44mm) 37.3mm Super AMOLED (480 x 480) Watch6 (40mm) 33.3mm Super AMOLED (432 x 432)</li> <li>- Size (W x H x D): Watch6 Classic (47mm) 46.5 x 46.5 x 10.9 mm; 59.0g Watch6 Classic (43mm) 42.5 x 42.5 x 10.9 mm; 52.0g Watch6 (44mm) 44.4 x 42.8 x 9.0 mm; 33.3g Watch6 (40mm) 40.4 x 38.8 x 9.0 mm; 28.7g</li> <li>- Platform (H/W, S/W): Exynos W930, Wear OS Powered by Samsung (Wear OS 4)</li> <li>- Design and performance that improve visibility <ul style="list-style-type: none"> <li>• Reduced bezel thickness and increased display size (by about 20%) compared to the previous model</li> <li>• Featured high-resolution Super AMOLED display with peak brightness of 2,000nit</li> </ul> </li> <li>- Provided enhanced sleep monitoring experience <ul style="list-style-type: none"> <li>• Shows sleep score via in-depth analyses of each measured factor and integrates the results</li> <li>• Offers enhanced, personalized sleep coaching program</li> </ul> </li> <li>- Introduced new features, including a more personalized fitness management program <ul style="list-style-type: none"> <li>• Provides a customized exercise guide by measuring heart rate within 5 cardiorespiratory capacity zones</li> <li>• Offers recording functions for track exercise, such as designation of the lane using the track running function</li> <li>• Features alarm functions to detect irregular heart rhythms</li> </ul> </li> <li>- Applied one-click band for effortless and convenient watch strip replacement</li> <li>- Strengthened performance by increasing battery capacity <ul style="list-style-type: none"> <li>• Applied 47/44mm 425mAh, 43/40mm 300mAh</li> </ul> </li> </ul> </li> </ul>

## DX Division

Research project	Details
	<ul style="list-style-type: none"> <li>□ Galaxy Watch7 / Galaxy Watch Ultra (July 2024) <ul style="list-style-type: none"> <li>- Screen: Watch7 (44mm) 37.3mm Super AMOLED (480 x 480) Watch7 (40mm) 33.3mm Super AMOLED (432 x 432) Watch Ultra (47mm) 37.3mm Super AMOLED (480 x 480)</li> <li>- Size (W x H x D): Watch7 (44mm) 44.4 x 44.4 x 9.7 mm; 33.8g Watch7 (40mm) 40.4 x 40.4 x 9.7 mm; 28.8g Watch Ultra (47mm) 47.1 x 47.4 x 12.1 mm; 60.5g</li> <li>- Platform (H/W, S/W): Exynos W1000 (5Core,3nm); Wear OS Powered by Samsung (Wear OS 5)</li> <li>- High usability with powerful hardware <ul style="list-style-type: none"> <li>• Equipped with 3nm processor for fast CPU speed and improved efficiency of current consumption</li> <li>• Equipped with dual frequency GPS system to improve GPS accuracy in complex environments</li> </ul> </li> <li>- Enhanced health monitoring function <ul style="list-style-type: none"> <li>• Offers AGEs Index measurements</li> <li>• Supports sleep apnea detection and accurate sleep measurements using advanced sleep AI algorithm</li> </ul> </li> <li>- Enhanced outdoor fitness experience by offering maximized performance (Ultra only) <ul style="list-style-type: none"> <li>• Offers signature circular design with new cushion design added</li> <li>• Applies dynamic lug system for easy attachment and perfect fit</li> <li>• Supports 10ATM water resistance and other functions to measure various fitness activities in extreme environments</li> <li>• Provides long battery life with 100 hours of power saving mode and 48-hours in exercise power saving mode</li> </ul> </li> <li>- Battery: 47mm 590mAh, 44mm 425mAh, 40mm 300mAh</li> </ul> </li> </ul>
Galaxy buds ~July 2024	<ul style="list-style-type: none"> <li>□ Galaxy Buds 2 Pro (August 2022) <ul style="list-style-type: none"> <li>- Kernel-type premium TWS that offers high-quality 24bit Hi-Fi audio and comfortable fit</li> <li>- Size (W x H x D): Earbuds 21.6mm x 19.9mm x 18.7mm Cradle 50.2mm x 50.1mm x 27.7mm</li> <li>- Platform (H/W, S/W): BES2700YP 1Chip solution, RTOS <ul style="list-style-type: none"> <li>• First Samsung Buds to apply 24bit/48kHz Hi-Fi technologies to offer a high-quality audio experience by minimizing loss of sound quality of the original recording; Intelligence ANC which adopts All High-SNR MIC, noise cancelling solution, and voice detect technology</li> <li>• Strengthened listening experience of the immersive 360 Audio feature via multi-channel audio and enhanced technology that tracks head movements</li> <li>• Provides clear and upgraded call quality through improved VPU and personalized beamforming technology</li> </ul> </li> <li>- Offers comfortable and stable fit thanks to the ergonomic design <ul style="list-style-type: none"> <li>• Improved fit through smaller size—15% size reduction compared to previous model—and enhanced structure of vent holes</li> </ul> </li> <li>- Strengthened user experience via easy connection between Galaxy Devices <ul style="list-style-type: none"> <li>• Expanded the Auto Switch feature from smartphones, tablets, and watches to TVs, and the transition between devices is made easier and faster</li> </ul> </li> </ul> </li> <li>□ Galaxy Buds3 Pro / Buds3 (July 2024) <ul style="list-style-type: none"> <li>- Improved wearability through new Stem design <ul style="list-style-type: none"> <li>• Secured desirability with differentiated futuristic blade design</li> </ul> </li> <li>- Personalized sound experience through AI reflecting audio device characteristics <ul style="list-style-type: none"> <li>• Optimized noise according to surroundings and real-time sound according to wearing conditions</li> </ul> </li> <li>- Seamless communication experience through an interpretation listening mode</li> <li>- Size (H x W x D): Buds3 Pro 18.1 x 19.8 x 33.2 mm; 5.4g Buds3 18.1 x 20.4 x 31.9 mm; 4.7g Cradle 48.7 x 58.9 x 24.4 mm; 46.5g</li> <li>- Platform (H/W, S/W): BES2800 (6nm)/BES2700 (14nm); RTOS</li> <li>- Improved audio quality <ul style="list-style-type: none"> <li>• Supports 24bit/96kHz UHQ *Buds2 Pro (24bit/48kHz Hi-Fi)</li> <li>• Applies separate 2 Way Speaker Buds3 Pro</li> <li>• Supports Adaptive EQ *Buds2 Pro(Fixed EQ)</li> </ul> </li> <li>- Improves call quality through design optimization <ul style="list-style-type: none"> <li>• Enhances voice clarity through application of Complex DNN/VPU solution</li> <li>• Enhances voice bandwidth with support for Super Wideband calls</li> </ul> </li> <li>- Offers intuitive operation experience with Cradle Button Pairing</li> <li>- Enhances experiences of intelligence functions <ul style="list-style-type: none"> <li>• Supports Buds3 Pro Siren/Voice Detect and Adaptive Noise Control</li> </ul> </li> <li>- Battery: Buds3 Pro 53mAh, Buds3 48mAh, Cradle 515mAh</li> </ul> </li> </ul>

DX Division	
Research project	Details
Galaxy ring July 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy Ring (July 2024) <ul style="list-style-type: none"> <li>- Expands Galaxy Health experiences with a design that can be worn at all times in daily life</li> <li>- 9 sizes (size 5–13)</li> <li>- Size: Ring 7.0 mm (W) x 2.6 mm (D); 2.3g (size 5) ~ 3.0g (size 13) (Cradle) 48.9 (W) x 48.9 (H) x 24.5 mm (D); 61.3g</li> <li>- Platform (H/W, S/W): nRF5340; Zephyr RTOS</li> <li>- Design and battery usage time suitable for 24/7 wearability <ul style="list-style-type: none"> <li>• Slim and lightweight design for comfort</li> </ul> </li> <li>- Up to 7 days of continuous health information measurement on a single charge <ul style="list-style-type: none"> <li>* Size 5 18mAh–Size 13 23.5mAh</li> </ul> </li> <li>- Enhanced durability with titanium material and 10 ATM, IP68 waterproofing</li> <li>- Offers personalized health management functions <ul style="list-style-type: none"> <li>• Provides indicators and personalized insights for users' personal condition management</li> <li>• Supports advanced sleep analysis and coaching functions</li> <li>• Monitors daily life, such as high/low heart rate notifications, automatic exercise detection, etc.</li> </ul> </li> <li>- Features differentiated experience for Galaxy users <ul style="list-style-type: none"> <li>• Supports easy pairing, gesture control, ring location search linked to terminal</li> <li>• Offers optimized usability—improved usage time when worn simultaneously with watch</li> </ul> </li> </ul> </li> </ul>
Network	<p>RAN S/W Package ~October 2024</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> vRAN* SW Package (November 2023) <ul style="list-style-type: none"> <li>* vRAN(virtualized RAN) <ul style="list-style-type: none"> <li>- Integrated 4th generation CPU from company "I" into our vRAN SW Package, applying it to a vRAN commercial network for the first time in industry</li> <li>- Successfully conducted data call on vRAN commercial network equipped with 4th generation CPU, following previous success in large-scale vRAN commercialization utilizing 3rd generation CPU</li> </ul> </li> </ul> </li> <li><input type="checkbox"/> 5G vRAN SW PKG (June 2024) <ul style="list-style-type: none"> <li>- Completed RedCap Energy-saving function test (testing for reducing power consumption in 5G IoT devices) <ul style="list-style-type: none"> <li>• Completed testing for vRAN-based 5G RedCap* Energy-saving technology for the first time in the industry</li> <li>• The Company has been validating vRAN RedCap technology (including commercial vRAN network in the US) and commercial functionality for both tRAN and vRAN will be provided in the future</li> <li>* tRAN (traditional RAN): hardware-based base station</li> <li>* RedCap (Reduced Capability): 5G low-power IoT technology</li> </ul> </li> </ul> </li> <li><input type="checkbox"/> AI-based 5G Base Station quality optimization technology (AI-RAN Parameter Recommender) (October 2024) <ul style="list-style-type: none"> <li>- Developed AI-based technology that automatically recommends optimal parameters for base station environments; and applied and validated the technology in commercial networks through cooperation with SKT</li> <li>- To be expanded in areas with frequent traffic changes to enhance perceived quality and maximize base station performance</li> </ul> </li> </ul>

## DX Division

Research project	Details
Base stations ~August 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Domestic 3.5GHz NR 32T32R TDD MMU (February 2022) <ul style="list-style-type: none"> <li>- Applied Mechanical PSA (Phase Shift Antenna), a company first <ul style="list-style-type: none"> <li>* Automatically controls the antenna angle (tilt 0-12°) inside the MMU with a motor</li> </ul> </li> </ul> </li> <li><input type="checkbox"/> Developed high-performance RFIC + DFE integrated chip (April 2022) <ul style="list-style-type: none"> <li>* RFIC (Radio Frequency Integrated Circuit): high-frequency integrated circuit suitable for wireless communication</li> <li>* DFE (Digital Front End): last stage of digital signal processing for communication</li> </ul> </li> <li><input type="checkbox"/> Two types of FDD RU for Dish (Dual Band/Tri Band RU) (September 2022) <ul style="list-style-type: none"> <li>- Developed 5G FDD RU product that complies with the O-RAN standard and supports multiple frequency bands at the same time</li> </ul> </li> <li>* frequency supported by RU: n71(600MHz), n29(700MHz), n66(AWS: 1.7GHz/2.1GHz), n70(AWS: 1.7GHz/1.9GHz)</li> <li><input type="checkbox"/> Gen.3 Dual Band NR 2T2R AU (October 2022) <ul style="list-style-type: none"> <li>- Developed the world's first Dual Band (28GHz+39GHz) AU</li> <li>- Upgraded product performance by increasing output and capacity twofold with the same size compared to the existing 2nd generation AU</li> </ul> </li> <li><input type="checkbox"/> Domestic 3.5GHz NR 64T64R MMU (November 2022) <ul style="list-style-type: none"> <li>- Developed 64T64R Massive MIMO MMU, which was commercialized in the domestic market for the first time</li> <li>- Increased antenna elements twofold and output by 2.7 times compared to the existing 32T32R MMU (old model) for the domestic market</li> </ul> </li> <li><input type="checkbox"/> 3.5GHz CBRS NR Strand Smallcell (March 2023) <ul style="list-style-type: none"> <li>- Developed commercial Strand Small Cell (small cell solution designed to be installed on cables), a company first</li> <li>- Cell solution that integrates baseband, radio, and antenna into a single form factor</li> <li>- Equipped with the Company's newest in-house chipset—2nd generation 5G modem SoC—and its small size enables installation on cables</li> </ul> </li> <li><input type="checkbox"/> C-band NR 64T64R MMU for North America (May 2023) <ul style="list-style-type: none"> <li>- More compact and lightweight 64T64R MMU allows higher output with low-power mode compared to the 1st generation</li> </ul> </li> <li><input type="checkbox"/> n77 (3.4~3.8GHz) NR 64T64R new MMU for Canada (August 2024) <ul style="list-style-type: none"> <li>- Developed high-output new MMU platform product applied with new PAM (power amplifier module), which has new structure</li> <li>- Compared to existing products, wideband support (high efficiency) enables entry into global markets that require high output and low power consumption, contributing to the expansion of the 5G market</li> <li>* Wideband support: Allows the simultaneous transmission of large amounts of data using a wide frequency band, resulting in faster transmission speed.</li> </ul> </li> </ul>

## DS Division

Research project	Details
<b>Memory</b>	
DRAM for mobile ~July 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Development of industry's first LPCAMM (September 2023) <ul style="list-style-type: none"> <li>- Developed LPDDR-based modules, leading the next-generation markets like PC and laptops</li> <li>- Improved performance by 50%, power efficiency by 70%, and mounting area by 60% compared to SO-DIMMs, and improved flexibility in manufacturing as well as user convenience with easy upgrade/replacement</li> <li>- Set to be tested using next-generation systems with major customers and slated for commercialization in 2024: expected to gain wide adoption in next-generation PCs, laptops and data centers.</li> </ul> </li> <li><input type="checkbox"/> Successfully verified industry's fastest LPDDR5X operation with MediaTek (July 2024) <ul style="list-style-type: none"> <li>- Completed verification on MediaTek's latest flagship mobile AP Dimensity, leading commercialization of high-performance products</li> <li>- The role of low-power and high-performance LPDDR DRAM is rising in the era of on-device AI</li> <li>- Expects expansion of applications beyond mobile to AI accelerators, servers, HPCs, and automotive</li> </ul> </li> </ul>

## DS Division

Research project	Details
DRAM for server ~September 2023	<ul style="list-style-type: none"> <li><input type="checkbox"/> Development of industry's most advanced 12nm-class DRAM (December 2022) <ul style="list-style-type: none"> <li>- Developed the industry's first 12nm-class 16Gb DDR5 DRAM, securing high-performance and low power features optimized for next-generation computing services</li> <li>- Improved productivity by approximately 20% and reduced power consumption by approximately 23% compared to previous models</li> <li>- Mass produced starting in 2023, providing optimal memory solutions for next-generation systems for customers, with applications expected to expand to data centers, AI, and next generation computing</li> </ul> </li> <li><input type="checkbox"/> Mass production of the industry's most advanced 12nm-class DRAM (May 2023) <ul style="list-style-type: none"> <li>- Enhanced productivity and improved low power consumption characteristics compared to 14-nano DRAM, improving productivity by approximately 20% and reducing power consumption by approximately 23%, which maximizes next-generation computing</li> <li>- Produced via our completed highly advanced node that applies cutting-edge technologies, such as a capacitor utilizing a new material with a high dielectric constant</li> <li>- Provide high-performance and high-density DRAM solutions to meet demand for the high-throughput computing market and expand 12nm-class DRAM lineup, which will be supplied to various applications</li> </ul> </li> <li><input type="checkbox"/> Development of the largest-capacity 32Gb DDR5 DRAM to date (September 2023) <ul style="list-style-type: none"> <li>- 40 years after the development of 64Kb DRAM in 1983, capacity has increased by 500,000 times</li> <li>- Enables the production of 128GB modules without TSV processes; improved power efficiency by 10% compared to 12-nano 16Gb based modules with the same capacity</li> <li>- Provides high density DRAM solutions optimized for AI and enables 1TB module production</li> <li>- Expects to enter mass production within 2023 to be supplied to various applications such as AI and next-generation computing</li> </ul> </li> </ul>
Graphic DRAM ~October 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Development of GDDR6 DRAM, industry's one of the fastest graphic DRAMs (July 2022) <ul style="list-style-type: none"> <li>- First in the industry to deliver speeds up to 24Gbps by applying 3rd generation 10nm-class (1z) process</li> <li>- Met customer needs by enhancing performance by more than 30% compared to the previous product, leading to processing speeds of up to 1.1TB per second; supporting operation voltage of 1.1V; and improving power efficiency by 20%</li> <li>- Secured compatibility by being fully compliant with specifications of JEDEC, an international semiconductor standardization body</li> <li>- Expanded applications, including next-generation graphics cards, AI, and HPC</li> </ul> </li> <li><input type="checkbox"/> Development of GDDR6W, graphics memory that applies advanced packaging technology (November 2022) <ul style="list-style-type: none"> <li>- GDDR6W is manufactured by introducing Fan-Out Wafer-Level Packaging (FOWLP) technology—a construction and stacking technology—without developing a new memory die</li> <li>- Increased performance (bandwidth) and capacity by twofold while maintaining the same packaging size of GDDR6</li> </ul> </li> <li><input type="checkbox"/> Development of the industry's first GDDR7 DRAM (July 2023) <ul style="list-style-type: none"> <li>- With the development of industry's fastest 32Gbps GDDR7 DRAM, we improved performance by 1.4 times and power efficiency by 20% compared to the previous 24Gbps GDDR6</li> <li>- Minimized heat generation during high-speed operation through optimization of the circuit design with new package materials</li> <li>- Set to be tested using next-generation systems with major customers within this year and planned for a timely commercialization to gain wide adoption in next-generation graphic cards, high-performance computing and AI</li> </ul> </li> <li><input type="checkbox"/> Development of the industry's first 24Gb GDDR7 DRAM (October 2024) <ul style="list-style-type: none"> <li>- Applied 12nm-class scaling process for increased cell density, achieving industry's highest capacity of 24Gb</li> <li>- Features 40Gbps speed with PAM3 signaling, up to 42.5Gbps</li> <li>- Applies Clock Control Technology, achieving low-power operation and maximizing power efficiency</li> <li>- A wide range of applications from graphic DRAM to AI workstations and data centers</li> </ul> </li> </ul>

DS Division	
Research project	Details
HBM DRAM ~February 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Developed AI-accelerator equipped with HBM-PIM and GPU (October 2022) <ul style="list-style-type: none"> <li>- Materialized HBM-PIM Cluster by installing HBM-PIM memory in AMD's GPU accelerator</li> <li>- Compared to existing GPU accelerators, on average, the addition of HBM-PIM improved performance by more than double and reduced energy consumption by more than 50%</li> <li>- In preparation to provide software that supports accelerators equipped with HBM-PIM, so consumers are expected to be able to use PIM memory solutions in an integrated software environment</li> </ul> </li> <li><input type="checkbox"/> Unveiled ultra-high performance HBM3E DRAM Shinebolt that will lead AI technology innovation (October 2023) <ul style="list-style-type: none"> <li>- Provides high-performance of up to 9.8Gbps per one data input/output pin, allowing speed capable of processing up to 1.2TB of data per second</li> <li>- Achieves high-level stacking for HBM chips by optimizing non-conductive film technology for dense chip stacking without gaps, and improved heat transfer coefficient by maximizing heat conduction</li> <li>- Currently mass-producing 8-layer and 12-layer HBM3 products and delivering samples of the next-generation HBM3E to customers</li> </ul> </li> <li><input type="checkbox"/> Developed industry's first 36GB HBM3E 12H DRAM (February 2024) <ul style="list-style-type: none"> <li>- Achieved industry's highest capacity of 36GB by stacking 12 layers</li> <li>- With Advanced TC NCF technology, achieved 12-layer stacks by maintaining the same height as 8-layer HBM3 and also improved both performance and capacity by over 50%</li> <li>- Enhanced vertical integration with 7 micrometer chip spacing—the industry's smallest—and applied various bump sizes</li> <li>- Started sample shipping to customers, with mass production expected in 1H</li> </ul> </li> </ul>
NAND ~September 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Mass production of 8th generation V-NAND (November 2022) <ul style="list-style-type: none"> <li>- Mass production of 1Tb 8th generation V-NAND, which is among the highest capacities in the world</li> <li>- Significantly enhanced bit productivity per wafer and secured one of the industry's highest bit density</li> <li>- Enhanced performance by 1.2 times compared to existing model, featuring an input and output (I/O) speed of up to 2.4Gbps with the adoption of a next-generation interface</li> <li>- Expected to lead the trend of expanding storage capacity in next-generation enterprise servers and extend use into the automotive market, in which reliability is critical</li> </ul> </li> <li><input type="checkbox"/> Mass production of 9th generation V-NAND, an industry first (April 2024) <ul style="list-style-type: none"> <li>- Industry's first mass production of 1Tb TLC 9th generation V-NAND</li> <li>- Highest-layer V-NAND possible with Double Stack structure</li> <li>- Equipped with next-generation interface with the industry's smallest cell size and thinnest mold, demonstrating our technological leadership</li> <li>- The advanced technology reduces cell area and interference, boosting bit density by 1.5 times compared to its Gen 8 V-NAND</li> </ul> </li> <li><input type="checkbox"/> Mass production of 9th generation QLC V-NAND, an industry first (September 2024) <ul style="list-style-type: none"> <li>- With industry's first release of both 9th generation QLC and TLC V-NAND, we enhanced competitiveness in the next-generation NAND flash market through our high-density QLC and high-performance TLC</li> <li>- Achieved industry's highest layered chip by implementing innovative technologies such as a double stack structure using channel hole etching technology.</li> <li>- Expand applications to mobile UFS, PC/server SSDs, etc. starting from brand products</li> </ul> </li> </ul>
eStorage ~May 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> Development of highly advanced UFS 4.0 (May 2022) <ul style="list-style-type: none"> <li>- Improved reading/writing speed by approximately twofold compared to UFS 3.1 product</li> <li>- Enhanced power efficiency by approximately 46% for processing the same amount of data, which allows longer hours of use</li> <li>- Improved a function that reads and saves customer's important data by adopting the latest security technologies</li> <li>- Expected to expand into consumer devices, such as smartphones, automotives, and VR/AR</li> </ul> </li> </ul>
SSD for server ~July 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> Development of '2nd generation smart SSD' with upgraded processing functionality (July 2022) <ul style="list-style-type: none"> <li>- Enhances processing functionality by twofold and cuts processing time by over 50%, energy consumption by up to 70%, and CPU utilization by up to 97%</li> <li>- Processes data directly, thereby improving system performance and energy efficiency at the same time</li> <li>- Actively address various market needs, including database and video transcoding</li> <li>- Lead standardization of computational storage and increase development of next-generation storage products</li> </ul> </li> </ul>
SSD for Client ~October 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Mass production of PM9C1a, a high-performance PC SSD equipped with a 5nm controller (January 2023) <ul style="list-style-type: none"> <li>- Elevated performance with a new 5nm controller and 7th generation V-NAND</li> <li>- Enhanced speed by up to 1.8 times and power efficiency by up to 70% vs the previous generation</li> <li>- Supports device authentication and verification technology with strengthened security solutions such as the new adoption of the Device Identifier Composition Engine (DICE) security standard</li> </ul> </li> <li><input type="checkbox"/> Mass production of SSD PM9E1 for PC, the industry's highest performance and largest capacity (October 2024) <ul style="list-style-type: none"> <li>- Supports 8-channel PCIe 5.0 and features 8th generation V-NAND, enabling top industry performance</li> <li>- Able to store large files such as AI-generated content, with 4TB high-capacity option</li> <li>- Improved up to 2x in performance and over 50% in power efficiency compared to predecessor PM9A1a</li> <li>- Applied new SPDM 1.2 version security solution to prevent data tampering and forgery</li> </ul> </li> </ul>

DS Division	
Research project	Details
Brand SSD ~September 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Released portable SSD 'T7 Shield' for experts that offers both performance and durability (April 2022) <ul style="list-style-type: none"> <li>- Built with dust and water resistance and drop resistance up to 3m</li> <li>- Transmits data stably without performance degradation, including when recording and editing high-resolution videos</li> </ul> </li> <li><input type="checkbox"/> Unveiled high-performance SSD '990 PRO' optimized for gaming (August 2022) <ul style="list-style-type: none"> <li>- Offers unparalleled performance by featuring the latest V-NAND technology and a new proprietary controller</li> <li>- Enhanced speed by up to 55% and power efficiency by up to 50% compared to previous model</li> <li>- Offers optimal performance for an environment in which ultra-high speed data processing is required, such as high-performance graphic games and 4K/8K high-resolution videos</li> </ul> </li> <li><input type="checkbox"/> Released high-performance SSD '990 PRO' 4TB (September 2023) <ul style="list-style-type: none"> <li>- Offers the fastest random read speed among PCIe 4.0-based consumer SSDs by applying state-of-art 8th generation V-NAND and achieving industry's highest performance</li> <li>- Optimized for tasks that require ultra-fast data processing, such as high-performance games and 3D/4K graphics</li> <li>- Strengthened compatibility and heat dissipation through design and application of a heat diffuser and heat sink</li> </ul> </li> <li><input type="checkbox"/> Launched ultra-fast portable SSD 'T9' (October 2023) <ul style="list-style-type: none"> <li>- Supports new data transmission interface, USB 3.2 Gen2x2, achieving approximately 2x improvement in consecutive reading/writing compared to the previous generation</li> <li>- Improves surface materials and achieves software optimization to reduce degradation and overheating during transmission of large files</li> </ul> </li> <li><input type="checkbox"/> Launched 8TB portable SSD T5 EVO, the largest capacity in industry (November 2023) <ul style="list-style-type: none"> <li>- Provides consecutive reading/writing with a speed of up to 460MB/s based on USB3.2 Gen1</li> <li>- Enhanced portability with compact size and weight, and metal ring</li> <li>- Equipped with overheating prevention and hardware data encryption technologies</li> </ul> </li> <li><input type="checkbox"/> Launched customer SSD '990 EVO' with high-performance and versatility (January 2024) <ul style="list-style-type: none"> <li>- Improved reading/writing speed by up to 43% compared to 970 EVO Plus</li> <li>- Enhanced power efficiency by up to 70% with new 5nm controller</li> <li>- Supports the next generation interface PCIe 5.0 x2</li> <li>- Enhances cost competitiveness with host memory buffer technology</li> </ul> </li> <li><input type="checkbox"/> Launched PCIe 4.0-based customer SSD '990 EVO Plus' (September 2024) <ul style="list-style-type: none"> <li>- Improved reading/writing speeds by 45% and 50% respectively, and power efficiency by more than 70% compared to its predecessor with the 8th generation V-NAND and 5nm controller</li> <li>- Expands consumer options by offering three capacities including high-density 4TB product</li> <li>- Offers easy upgrade of performance and capacity through installation on laptop or PC mainboards</li> <li>- Prevents overheating with nickel-coated controller and heat dissipation labels, enhancing product stability</li> </ul> </li> </ul>
CXL ~June 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Development of industry's first high-capacity 512GB CXL DRAM (May 2022) <ul style="list-style-type: none"> <li>- Enhanced capacity of CXL DRAM by four times, which allows expansion of over tens of terabytes per server</li> <li>- Equipped with CXL-exclusive controller, reducing data latency by 1/5</li> </ul> </li> <li><input type="checkbox"/> Development of CXL-based PNM solution for high-capacity AI models (October 2022) <ul style="list-style-type: none"> <li>- PNM's (Processing-near-Memory) computational functions are performed closer to the memory to reduce the bottleneck between the CPU and memory data transference and to improve system performance</li> <li>- Enhanced performance by approximately twofold in applications, such as recommendation systems or in-memory databases, that require high memory bandwidth</li> </ul> </li> <li><input type="checkbox"/> Development of industry's first CXL 2.0 DRAM (May 2023) <ul style="list-style-type: none"> <li>- Overcomes limitations of DRAM modules, enabling expansion of bandwidth and capacity</li> <li>- Reduced server operation costs by supporting memory pooling, which assists splitting-use of CXL DRAM</li> <li>- Expands CXL ecosystem through continued collaboration with data centers and server and chipset companies; and become an industry leader by promptly addressing demand in the next-generation computing market</li> </ul> </li> <li><input type="checkbox"/> Established industry's first Red Hat certified CXL infrastructure (June 2024) <ul style="list-style-type: none"> <li>- Established Red Hat certified CXL infrastructure in the SMRC, Samsung Electronics' internal research facility, allowing for in-house verification of all server components, from products to software</li> <li>- Conducted rapid product development, including the industry's first CMM-D Red Hat certification, providing customized solutions for clients</li> <li>- Demonstrated technology for CXL-based server performance enhancement at the Red Hat Summit 2024 in the US</li> </ul> </li> </ul>

## DS Division

Research project	Details
Brand Card ~August 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Released memory card 'PRO Endurance' with enhanced performance and durability (May 2022) <ul style="list-style-type: none"> <li>- Adopts high-quality server-level NAND durability that allows up to 16 years of continuous recording time</li> <li>- Optimized for high-resolution (4K, Full HD) video recording equipment, such as surveillance video and black box</li> <li>- Keeps stable recording performance even in tough conditions, applies 6-proof protection</li> <li>- Supports speed of Class 10, UHS Class U3, and video speed of Class V30; can continuously record Full HD + 4K high-resolution videos</li> </ul> </li> <li><input type="checkbox"/> Released memory card 'PRO Ultimate' with enhanced speed and stability (August 2023) <ul style="list-style-type: none"> <li>- 'PRO Ultimate' provides the highest level of 200MB/s read speed and 130MB/s write speed under the UHS-I standard, improving power efficiency by 37% compared to previous models and achieving data protection against extreme external conditions such as water, moisture, abrasion, X-ray, and temperature.</li> <li>- Provides the optimal SD Cards/Micro SD Cards for high-resolution content work catering to professional photographers and creators who use devices like drones, action cameras, and DSLR</li> </ul> </li> <li><input type="checkbox"/> Developed industry-first SD Express microSD Card (February 2024) <ul style="list-style-type: none"> <li>- Offers industry's highest continuous reading performance of 800MB/s and 256GB capacity</li> <li>- First to apply Dynamic Thermal Guard technology—which has been used in SSDs—to effectively addressed overheating in small form factors</li> </ul> </li> <li><input type="checkbox"/> Mass produced high-density 1TB UHS-I micro SDcard, based on the most recent V-NAND (February 2024) <ul style="list-style-type: none"> <li>- Achieved terabyte-level capacity in microSD cards with 8th generation V-NAND</li> <li>- Ensures data protection data in extreme environments (e.g. water, abrasion from dropping)</li> </ul> </li> <li><input type="checkbox"/> Released two types of high-density 1TB micro SD cards (August 2024) <ul style="list-style-type: none"> <li>- Achieved terabyte-level high-density product by applying 1Tb TLC 8th generation V-NAND, an industry's high for capacity</li> <li>- Meets the demand for high performance and high capacity solutions with a maximum capacity of 1TB</li> <li>- Improves power efficiency and reduces battery consumption with 28nm controller</li> </ul> </li> </ul>
Automotive ~September 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Mass production of ultra-low-power UFS 3.1 for vehicles (July 2023) <ul style="list-style-type: none"> <li>- Began mass production of Infotainment (IVI) UFS 3.1 for vehicles, which has the lowest power consumption in the industry and is optimized for EVs and autonomous vehicles</li> <li>- Offers 33% lower power consumption compared to the previous generation, with a maximum read speed of 2,000MB/s and a maximum write speed of 700MB/s for 256GB</li> <li>- Strengthened storage product lineup for automotives by establishing lineup of 128GB/256GB/512GB products to meet various customer needs; and established UFS 3.1 products for advanced driver assistance systems</li> </ul> </li> <li><input type="checkbox"/> Unveiled key solutions for vehicles to reach no.1 in automotive memory market in 2025 (October 2023) <ul style="list-style-type: none"> <li>- Unveiled Detachable AutoSSD that allows multiple SoCs to use a single SSD divided through storage virtualization, supporting consecutive read speed up to 6,500MB/s and providing 4TB capacity</li> <li>- Showcased high bandwidth GDDR7 for vehicles and LPDDR5X with reduced packaging size</li> </ul> </li> <li><input type="checkbox"/> Supplied LPDDR4X for Qualcomm vehicles solutions (August 2024) <ul style="list-style-type: none"> <li>- Initiated the first collaboration with Qualcomm in automotive semiconductor sector, supplying chips for Snapdragon Digital Chassis and supporting premium vehicle infotainment</li> <li>- Ensures stable performance even in extreme environments ranging from -40°C to +105°C</li> <li>- Plans for long-term supply to global automakers and auto parts makers</li> </ul> </li> <li><input type="checkbox"/> Developed 8th-generation V-NAND based vehicle SSD, an industry's first (September 2024) <ul style="list-style-type: none"> <li>- Provides 256GB SSD samples to customers and optimizes support for in-vehicle AI functions</li> <li>- Achieved industry's fastest speed with 8th-generation V-NAND and 5nm-based controller</li> <li>- Supports high-performance SLC mode, enabling fast access to large files,</li> <li>- Responds to customer demand for high-density SSDs for vehicles with a 2TB product to be released early next year</li> </ul> </li> </ul>

## DS Division

Research project	Details
<b>System LSI</b>	
Image Sensor ~December 2024	<ul style="list-style-type: none"> <li>□ Unveiled 200 megapixel image sensor, industry's smallest pixel size (HP3, 0.56um/200Mp)           <ul style="list-style-type: none"> <li>- Reduced camera module area by up to 20% with 12% smaller pixels compared to the previous HP1(0.64um)</li> <li>- With the Super Quad Phase Detection (QPD) technology, enables auto-focusing feature for all 200 megapixels</li> <li>- Utilizes Tetra2pixel technology, which offers vivid picture quality even in low-light environments</li> <li>- Improves picture resolution for 200 megapixel and usability of a 50 megapixel sensor zoom by applying AI-based image process solutions</li> </ul> </li> <li>□ Launched 200 megapixel image sensor combined with ultra-high resolution technologies (HP2, 0.6um/200Mp)           <ul style="list-style-type: none"> <li>- Applied Dual Vertical Transfer Gate technology—industry's first—and enhanced color expression and picture quality</li> <li>- Leveraged Tetra2pixel technology, offering vivid picture quality even in low-lit environments</li> <li>- Adopted Dual Slope Gain, creating an HDR image as high as 50MP—industry's first</li> <li>- Applied Super QPD, which allows the sensor to use all its pixels for auto-focusing</li> </ul> </li> <li>□ Launched industry's highest- performance image sensor for vehicles (1H1, 2.1um/8.3Mp)           <ul style="list-style-type: none"> <li>- Enables automotive120dB HDR, LFM (LED flicker mitigation) and motion-artifact free simultaneously</li> <li>- Applies DTI (Deep Trench Isolation) to prevent interference between adjacent pixels and improves low-light SNR</li> </ul> </li> <li>□ Unveiled ISOCELL vision 63D iTOF (indirect Time Of Flight) sensor (63D, 3.5um/0.3Mp)           <ul style="list-style-type: none"> <li>- Measures three dimensional information of objects by sensing light wavelengths</li> <li>- An industry-first single-chip iTOF sensor which reduces system power consumption by 40% compared to the previous sensor (33D)</li> <li>- Supports surface light source and point light source modes and extends maximum measurement distance to 10m</li> </ul> </li> <li>□ Unveiled ISOCELL Vision 931 Global Shutter sensor (931, 2.2um/0.4Mp)           <ul style="list-style-type: none"> <li>- Simultaneously exposes all pixels to light, just like the human eye, increasing speed and accuracy.</li> <li>- Recognizes even minute movements in the user's pupils, facial expressions, hand motions, etc.</li> </ul> </li> <li>□ Unveiled industry's first 200-megapixel mobile image sensor for telephoto camera (HP9, 0.56um/200Mp)           <ul style="list-style-type: none"> <li>- Significantly improved low-light sensitivity with micro-lens using newly developed proprietary materials</li> <li>- Clear image quality up to 12X zoom when mounted on 3X telephoto module</li> </ul> </li> <li>□ Launched Dual Pixel ISOCELL GNJ, the quintessence of new pixel technology (GNJ, 1.0um/50Mp)           <ul style="list-style-type: none"> <li>- Delivers sharp resolution as sensor itself is equipped with a built-in zoom function, eliminating moiré effects</li> <li>- Improves light transmission rate by minimizing pixel interference by changing isolation layer materials between pixels</li> </ul> </li> <li>□ Launched ISOCELL JN5 to offer consistent camera experience across all view angles (JN5, 0.64um/50Mp)           <ul style="list-style-type: none"> <li>- Thin optical format allows use in wide-angle, ultra-wide-angle, front-facing and telephoto lenses</li> </ul> </li> <li>□ Unveiled sensor solution All Lenses on Prism (ALoP) compatible with thin smartphones           <ul style="list-style-type: none"> <li>- Rearranged lens and prism structure to maintain compact module size even with larger lens diameter</li> </ul> </li> </ul>

## DS Division

Research project	Details
Exynos ~December 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Released premium mobile AP 'Exynos 2200' <ul style="list-style-type: none"> <li>- Adopted the next-generation GPU Xclipse jointly developed with AMD, maximized gaming performance and power efficiency</li> <li>- Enabled Ray Tracing technology based on hardware on mobile devices—a first in the industry</li> <li>- Strengthened performance and security by adopting the core based on the latest ARM CPU architecture 'Armv9'</li> <li>- Enhanced NPU performance by more than twofold compared to the previous model, significantly enhanced machine learning performance</li> </ul> </li> <li><input type="checkbox"/> Secured internationally standardized 5G non-terrestrial networks (NTN) modem technology for satellite communications <ul style="list-style-type: none"> <li>- Reflects the latest standard (Release-17) of 3GPP, which unites telecommunications standard development organizations</li> <li>- Adopted technologies that accurately predict low Earth orbit satellite locations and minimize frequency offsets</li> <li>- Supports two-way transmission of large-capacity data, including text messaging and video sharing</li> </ul> </li> <li><input type="checkbox"/> Unveiled Exynos Connect U100, an ultra-wideband (UWB) chipset for short-range wireless communications <ul style="list-style-type: none"> <li>- Provides an accuracy of single-digit centimeters and 5-degrees and under</li> <li>- Low-power, one-chip solution optimized for various mobile, automotive, and IoT devices</li> <li>- Equipped with a scrambled timestamp sequence (STS) function and a secure hardware encryption engine to prevent external hacking</li> <li>- Certified by FiRa Consortium, an organization that certifies UWB products for conformity to interoperability standards</li> </ul> </li> <li><input type="checkbox"/> Expands Samsung Electronics-AMD partnership for next-generation graphic design asset <ul style="list-style-type: none"> <li>- Offers console-level gaming experiences on various devices beyond smartphones</li> <li>- Expands eco-system for next-generation graphic solution R&amp;D</li> </ul> </li> <li><input type="checkbox"/> First Infotainment collaboration with Hyundai Motor Company <ul style="list-style-type: none"> <li>- Supplies Exynos Auto V920 for premium infotainment to Hyundai</li> <li>- Significantly enhanced performance compared to the previous V910 model, offering optimal mobility experiences for drivers</li> <li>- Offers high level of safety by adopting ASIL-B safety standard for vehicle system</li> </ul> </li> <li><input type="checkbox"/> Unveiled advanced Mobile AP Exynos 2400 <ul style="list-style-type: none"> <li>- Offers industry's highest performance of ray tracing with 2.1 times higher level of performance compared to the previous model</li> <li>- With enhanced AI performance, it provides on-device generative AI functions without internet connection</li> <li>- First Exynos to adopt Non-Terrestrial Network technology</li> </ul> </li> <li><input type="checkbox"/> Unveiled latest technology mobile AP Exynos 1480 <ul style="list-style-type: none"> <li>- Improved power efficiency by 22% over the previous model by applying the latest 4nm technology</li> <li>- Features content recognition, image processing with powerful AI function</li> <li>- Enhanced graphics performance over the previous generation with AMD RDNA-based Xclipse 530 GPU</li> </ul> </li> <li><input type="checkbox"/> Unveiled latest technology applied wearable SoC Exynos W1000 <ul style="list-style-type: none"> <li>- First wearable chip to be manufactured using 3nm technology and features large core</li> <li>- Offers performance enhancement compared to its predecessor, Exynos W930, by 3.4 times for single core and 3.7 times for multi core</li> <li>- Maximizes mounting space for the chip system by using advanced packaging technologies (FO-PLP: Fan-Out Panel Level Packaging, SiP: System in Packaging, ePoP: embedded Package on Package)</li> </ul> </li> <li><input type="checkbox"/> Unveiled mobile AP Exynos 1580, with significantly improved performance <ul style="list-style-type: none"> <li>- Upgraded to Armv9 CPU architecture and applied tri-cluster architecture, greatly improving CPU performance</li> <li>- Equipped with 3rd generation custom GPU (Xclipse 540), improving up to 37% in performance than previous Exynos 1480</li> <li>- Features 200MP image sensor processing function and equipped with an NPU that supports up to 14.7 trillion operations per second (TOPS)</li> </ul> </li> </ul>
LSI ~January 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> Released all-in-one fingerprint security IC for biometric payment cards (S3B512C) <ul style="list-style-type: none"> <li>- Combines hardware security chip (SE, Secure Element), fingerprint sensor, and Secure Processor in one IC</li> <li>- 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.</li> </ul> </li> </ul>
Foundry	<p>World's first 3nm process that adopts GAA technology June 2022</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> World's first mass production of 3nm process that adopts Gate-All-Around (GAA) transistor technology <ul style="list-style-type: none"> <li>- Maximized power efficiency and performance by implementing 'MBCFET', our in-house GAA technology that utilizes nanosheets</li> <li>- 1st-generation 3nm process reduced power consumption by 45%, improved performance by 23%, and reduced surface area by 16% compared to 5nm</li> </ul> </li> <li><input type="checkbox"/> GAA technology overcomes the performance limitations of FinFET, allowing to continue to make smaller chips <ul style="list-style-type: none"> <li>- The gate surrounds all four faces of the channel, which enables finer control of current flow and reduces operating voltage and power consumption</li> <li>- 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</li> <li>- The width of channels can be adjusted, giving better design flexibility</li> </ul> </li> <li><input type="checkbox"/> Providing verified 3nm design infrastructure and services with ecosystem partners</li> <li><input type="checkbox"/> Planning to expand adoption into high-performance, low-power system semiconductors for HPC, mobile SoCs, etc.</li> </ul>

## DS Division

Research project	Details
4th generation-4nm process for HPC November 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Mass production of 4<sup>th</sup> generation-4nm process for HPC           <ul style="list-style-type: none"> <li>- Optimized for high-performance, low-power HPC by reducing RC delays through high-speed transistors and improved Back End of Line (BEOL) process</li> <li>- Able to support advanced 2.5D/3D packaging technologies</li> </ul> </li> </ul>

## SDC

Research project	Details
<b>Display panel</b>	
55/65" QD-Display January 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> World's first QD-Display for TV (55" UHD, 65" UHD)           <ul style="list-style-type: none"> <li>- Exceptional wide color gamut of BT2020 90%</li> <li>- Expresses outstanding brightness and color at any angle with QD display which emits light evenly across all directions</li> <li>- Excellent HDR performance, deep and detailed black expression</li> </ul> </li> </ul>
34" QD-Display March 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> World's first QD-Display for monitor (34" QHD)           <ul style="list-style-type: none"> <li>- Provides superb gaming experience by supporting 175Hz, 0.1ms, 1800r, HDR True Black, and G-Sync</li> <li>- Outstanding color, viewing angle, and contrast ratio and minimized exposure to blue light</li> </ul> </li> </ul>
Foldable OLED for Galaxy Z Fold 4 August 2022	<ul style="list-style-type: none"> <li><input type="checkbox"/> Promoting additional improvements compared to previous model           <ul style="list-style-type: none"> <li>- Significantly improved display quality in the location of the Under Panel Camera while maintaining camera performance and emphasized large-screen experience</li> <li>- Enhanced energy efficiency with Eco2 OLED Plus with improved transmittance efficiency</li> <li>- Reduced costs and weight via integrated FRP-Digitizer panel</li> </ul> </li> </ul>
14/16" OLED for Galaxy Book 3 Pro February 2023	<ul style="list-style-type: none"> <li><input type="checkbox"/> Development of the world's first large-sized (16") OCTA technology           <ul style="list-style-type: none"> <li>- Expanded the application of OCTA—touch-integrated technology—from smartphone OLED to middle-sized laptop OLED panels</li> <li>- Minimized the dead space of panels via development of new materials and process technologies</li> <li>- Reduced power consumption with the first adoption of OLED notebooks with refresh rate of 48–120Hz</li> </ul> </li> </ul>
16" OLED Development for HP Elitebook April 2023	<ul style="list-style-type: none"> <li><input type="checkbox"/> Achieves power-efficiency and durability through improvements in OLED organic materials           <ul style="list-style-type: none"> <li>- 16" WQ+ (2,880 x 1,800, 16:10)</li> <li>- Applied 48Hz–120Hz, VRR (Variable Refresh Rate) and received AMD Freesync Premium Pro certification; provides an optimal gaming environment</li> </ul> </li> </ul>
OLED for Google Pixel 8 pro October 2023	<ul style="list-style-type: none"> <li><input type="checkbox"/> Through application of new OLED materials that are highly efficient and long-lasting, high luminance (HBM 1,600nits, peak 2,400nits) was achieved.           <ul style="list-style-type: none"> <li>- 6.7" WQXGA+ (1,344 x 2,992)</li> <li>- Applied 1–120Hz VRR (variable refresh rate) and technology to minimize dead space</li> </ul> </li> </ul>
Galaxy S24 AMOLED January 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Galaxy S24 (6.16" FHD+, 6.66" WQ+, 6.79WQ+)           <ul style="list-style-type: none"> <li>- Combines high-resolution low power consumption technology with technology to minimize panel dead space</li> <li>- Achieves high-luminance, low power and slim bezel and improves image quality and user experience</li> </ul> </li> </ul>
31.5"UHD, 27"QHD QD-OLED January 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> Developed 31.5" (140ppi), 27" (360Hz) QD-OLED monitor           <ul style="list-style-type: none"> <li>- Developed self-emitting display with high-resolution (140ppi) and high refresh rate (360Hz) with precision inkjet printing technology and Samsung's AI-based operating algorithms</li> </ul> </li> </ul>
BMW Mini 13.4" 185ppi June 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> 13.4" Round OLED Display for vehicle Center Information Display (1,752 x 1,660)           <ul style="list-style-type: none"> <li>- Applies round automotive displays for the first time</li> <li>- Ensures uniform characteristics across areas on atypical displays with newly developed compensation circuit and panel structure</li> <li>- Developed large-area atypical OCTA technology</li> </ul> </li> </ul>
Surface Pro 10 May 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> 13" WQ+ (2,880x1,920, 3:2)           <ul style="list-style-type: none"> <li>- 30Hz low-frequency drive technology for notebook OLED for the first time, achieving low power consumption (variable refresh rate from 30 to 120Hz)</li> </ul> </li> </ul>
Foldable OLED for Galaxy Z Fold6 July 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> 7.61" (2,160x1,856) Display for foldables           <ul style="list-style-type: none"> <li>- Improves luminance efficiency and visibility with new panel structure/materials, achieving low power consumption and enhancing picture quality</li> <li>- Applies structures/materials with enhanced foldable durability</li> </ul> </li> </ul>
OLED for Google Pixel 9proXL September 2024	<ul style="list-style-type: none"> <li><input type="checkbox"/> 6.75" high resolution/low power smartphone Display • 1,344 x 2,992, Peak brightness 3,000nit           <ul style="list-style-type: none"> <li>- Improves brightness, lifespan, and picture quality and reduces power consumption by 10% by applying low-power panel structure and high-efficiency new organic materials</li> </ul> </li> </ul>